CIAM
A CONCURRENT IDMS ACCESS METHOD FOR VM/370

by

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B.S., Kansas State University, 1978

A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

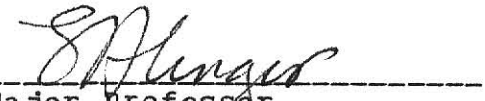
MASTER OF SCIENCE

Department of Computer Science

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1982

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ACKNOWLEDGEMENTS

I would like to thank my major professor, Dr. Beth Unger, for her help and guidance throughout this project and Drs. Rod Bates, and Ken Conrow for their comments and suggestions concerning this paper. I would also like to thank Dr. Tom Gallagher and the Kansas State University Computing Center for allowing me to use their equipment in the development phase of this project, and for the technical consultation provided by their Systems Programming staff, and Mr. John Devore of User Services. A special note of thanks to Mr. Robert Young, who developed IEAVMCF, for his help and consultation. Finally, a special thanks to my wife, Myra, who endured endless hours of discussion on this project.

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Chapter I

INTRODUCTION

This paper describes the Concurrent IDMS Access Method (CIAM). CIAM allows multiple virtual machines running under IBM's VM/370[1] to communicate, via message buffers, to a shared backend database virtual machine running Cullinane's Integrated Database Management System (IDMS).

CIAM was developed out of a need to allow multiple copies of Cullinane's IDMS Central Version to be running separately. Cullinane's implementation of IDMS requires a central database administrator to control updates to the various schemas and sub-schemas in the shared data dictionary. This requirement presents quite a burden in a computing environment accommodating a large number of users[2] with varied and different activities.

CIAM provides the application programmer transparent access to the shared database backend virtual machine. The database administrator must identify the name of the backend database virtual machine, and optionally modify the time limit for a un-serviced database request.

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[1] Release 3.8 or later, currently running under VM/SP, release 1.03.

[2] The Kansas State University Academic Computing Center supports approximately 1200 interactive users.

Several features were desired in the design and implementation of CIAM.

1. Application programmer transparency.
2. Minimum modification to existing software.
3. Low system overhead.
4. High reliability.
5. Ability to recover from errors.

These goals have been met in the initial implementation of CIAM.

The initial implementation of CIAM is under IBM's Conversation Monitor System (CMS) interfacing with Cullinane's Integrated Database Management System (IDMS). CMS provides a single-user, single-tasking interactive "virtual machine" [9] environment for the user. This environment allows editing, program execution, and communication to other virtual machines running on the real machine. Cullinane's IDMS is a database management system which is called by the user's program to perform database functions. Two versions of IDMS exist, the Local Version, and the Central Version. The major difference between the two versions is that the Central Version allows concurrency of operation, whereas the Local Version runs in single-user mode.

Familiarity with the above mentioned products is assumed throughout this paper. Chapter II, Solution, introduces the components of CIAM. Chapter III, Design, provides a high-level introduction to the internals of CIAM. Chapter IV,

Internals, details the low-level workings of CIAM, and requires detailed knowledge of operating systems concepts, assembler programming, communication protocols, and the above mentioned products. The reader may omit reading Chapter IV and content himself with a general overview of CIAM.

The reader may wish to review the manuals that cover the products used in CIAM. The application programs are written in the PL/I language;[3] references [2,3,4,5] provide further information. Cullinane IDMS manuals cover several products used in CIAM, these include Database Design and Definition Guide [11], Utilities [12], and Programmer's Reference Guide - PL/I [13].

1.1 WHAT IS CIAM?

CIAM consists of two main modules CIAMUSER, the user interface, and CIAMDBMS, the database interface, along with the protocols which allow the IDMSDMLP pre-processor to expand[4] the data manipulation language (DML) statements into calls on the database management system. CIAMUSER and CIAMDBMS communicate with each other through an interface communication package named IEAVMCF. This communication package, which exists as a subroutine to the user's program, interfaces between the user's program and the host operating system. CIAMUSER consists of a collection of procedures

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[3] IBM PL/I Optimizing Compiler, Release 3.2, PTF 70

[4] Much the same as macros are expanded by the IBM S/370 assembler.

which the user includes with his/her program prior to execution. The database interface program, CIAMDBMS is a module[5] file which the backend machine executes to establish the CIAM environment and perform the database requests. The backend machine typically would initialize the environment prior to executing the CIAMDBMS module.

1.2 MOTIVATION

At this point it might be useful to reflect upon the motivation for CIAM. The major benefit of CIAM is to allow multiple virtual machines to communicate to a shared database backend virtual machine. This makes CMS usable as a teleprocessing monitor similar to CICS [16,17] or SHADOW [18,19]. This removes the need for multiple IDMS Central Version processors and serves to reduce the system load and the updating chores of the Database Administrator (DBA). Academically, the virtual machine concept [9] of VM/370 allows the CMS terminal to simulate nodes in a distributed computing network. Simulation and networking problems concerning database management systems can be readily studied using CIAM. Operationally, isolating in a virtual machine a copy of IDMS, to be used by like applications and not used by un-like applications, provides security and integrity controls over the database and the data-dictionary.

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[5] CMS term for a memory image executable program.

Initially CIAM was designed to run with IDMS Central Version release 4.5. During the development of CIAM, Cullinane distributed releases 5.0 and 5.5. IDMS Local Version 5.5 was installed in OS and, to support CIAM development, was later modified to run in CMS. The Central Version was not installed in either OS or CMS. The effect of this has been to limit the number of concurrent users of CIAM services to one. Should the central version become available, the communications portion of CIAM should work without modification. Slight modifications to the low-level interface between IDMS Central Version and CIAMDBMS might be required.

1.3 ORGANIZATION OF THE THESIS

Chapter Two, Solution, provides an introduction into the software used to implement the Concurrent IDMS Access Method. Each of the components of the access method are given a brief introduction. Justification for, and discussion of, the communication protocol is given, along with the relationships between the user of the communication protocol, the user interface, and the database interface.

Chapter Three, Design, presents on a high-level the internals of the access method. Each component of the access method is examined, and the inter-relationships between the components is explained. The flow of control, showing a request for database service going from the user's machine through the various pieces of CIAM software is given.

Internals, Chapter Four, details the CIAM access method at a low level. The reader should be well versed in assembler language programing as well as operating system internals. Specific knowledge of the IBM VM environment, especially OS Simulation is required for full understanding of this chapter. Each component of the access method is described in detail.

Chapter Five, Summary, gives some closing discussion of the value of CIAM and knowledge gained by the development of the package. Possible extensions to CIAM are discussed, showing the areas available for future work in this area. The format and location of the CIAM source is discussed, as well as distribution arrangements for computer readable copies.

Chapter II

SOLUTION

2.1 IDMSDMLP PRE-PROCESSOR PROTOCOLS

The user indicates the desire to communicate to the back-end database machine by setting the MODE keyword in the application program's DML compiler directive statement to "CIAM". This will cause the IDMS supplied pre-processor for PL/I, IDMSDMLP, to convert the data manipulation language statements to calls to the procedure CIAMDML in the user interface routines, CIAMUSER. The protocols which perform this conversion were written as part of the CIAM development. Due to the design of the communication protocol used, the arguments in the call statement must all be in a contiguous area of memory. The arguments are expanded by the CIAM macros into the the control block CIAM_CB. The control block, at execution time, is the message buffer sent between the user's virtual machine and the backend database virtual machine.

2.2 COMMUNICATIONS SOFTWARE -- MODIFICATIONS

As mentioned in Chapter I, CIAM consists of the communication procedures and interface programs to communicate between the user's procedure (via its copy of IEAVMCF), and the database procedure through a modified version of IEAVMCF named CDBSVMCF. IEAVMCF was chosen for several reasons but notably because:

1. IEAVMCF executes both under CMS and OS/MVT (and with modification will execute under virtual memory batch operating systems such as VS/1 and MVS).

2. Multiple communication paths between nodes (both source and sink nodes) are made available by IEAVMCF communication protocol.

3. IEAVMCF, developed at Kansas State University, is locally supported, aiding in the understanding and usability of the package.

4. IEAVMCF uses standard (and more understandable) IBM supervisor call (SVC) linkage conventions rather than diagnose linkage conventions.

It was deemed desirable for the user's machine to time-out after some time period waiting for a DML request to be serviced. To this end a modification was made to IEAVMCF so that when it receives an external interrupt that it does not recognize it calls a procedure supplied by CIAMUSER. This modification, which only exists in the CMS version of IEAVMCF[6] was considered useful enough to be made generally available for other users.

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[6] OS tasks have access to other supervisor services to perform time-out type functions.

Fairly extensive modifications besides the aforementioned modification were required of IEAVMCF for the backend database machine. CMS, in its single tasking environment, only allows one task at a time to be in a WAIT state. To this end, the backend program, CIAMDBMS, must be interrupt driven by the incoming DML requests, i.e. driven by the incoming messages to IEAVMCF.

Due to the specialized nature of the backend machine, a separate version of IEAVMCF was created, named CDBSVMCF. CDBSVMCF, upon the receiving a message for a given user, invokes a procedure in CIAMDBMS to schedule the service of the DML request. Should the database virtual machine be in a wait state, the virtual machine is awakened to service the request.

Internally to IEAVMCF, the logical connection between virtual machines is refered to as a "path". A path is defined by the virtual machine identification (VMID) and the path number, a number in the range of 0 through 255. The CIAM software uses the term "port" to refer to the same concept, so the two terms may be used interchangably.

2.3 INTERFACE SOFTWARE - USER MACHINE

CIAMUSER, the user's interface to CIAM services performs all message formatting, sending, and receiving for the user's application program. The design of IEAVMCF requires

that the message buffer which is sent to the sink[7] virtual machine be in one contiguous block of memory. VMCF performs the transfer by locking the two pages involved in the transfer, one for the sink and one for the source, and moving the data via a machine instruction which allows up to 4096 bytes to be moved at a time. VMCF, being part of the Control Program, (CP), has the real address of the two pages involved, rather than virtual address.

Extensive error reporting is used by CIAMUSER to reflect error situations that occur due to IEAVMCF message transmission.[8] The error messages are in the standard CMS message format. Figure one illustrates the message header format, described below. The first 4 characters of the message name reflect that the error message is from CIAMUSER (the characters "CIAM"). The next character is the "$" sign, used as a delimiter. In position 6 is a letter indicating which entry in CIAMUSER the error message is coming from. Next comes a three digit number unique to CIAMUSER indicating the error number. Finally there is the level of the message, "I" for informative, "E" for error message, "T" for terminal.

The content of the error messages, coupled with the partial memory dump of control blocks caused by those errors, which indicate possible malfunctioning with CIAMUSER, should

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[7] IEAVMCF term for the backend database machine.

[8] Errors that occur due to DML execution (record not found, end of set, for example) are not reflected in CIAM error messages, but rather reflected back to the user's program.

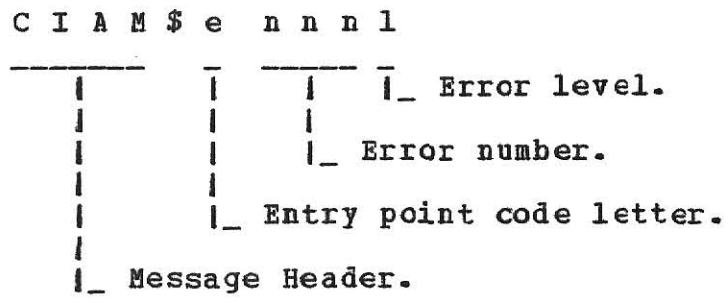


Figure 1: Standard CIAM Error and Informative Message Format

help the user in problem determination. The user can, through the Control Program (CP), signal an external interrupt to the CIAMUSER procedure. When the user issues the command "CP EXT D1" the control blocks of CIAMUSER, CIAM_CB, and IEAVMCF are displayed on the console. This facility has proven to be very helpful during debugging activities, and is foreseen as an useful facility for future debugging. CIAMUSER is new software, implemented entirely for CIAM.

2.4 INTERFACE SOFTWARE - DATABASE MACHINE

CIAMDBMS is the interface program for CIAM services on the backend database machine. After sequential execution to initialize itself, CIAMDBMS executes in an interrupt driven manner. There are three classes of interrupts which drive CIAMDBMS. Class one is the VMCF interrupt. The activities of receiving messages sent by the user machines, returning the resultant message, and rejecting the message, cause interrupts on the database machine. Class two is the clock

comparator interrupt. Clock comparator interrupts occur when the machine has been in a wait state longer than some assembly-time determined constant time. The final class of external interrupts involve external interrupt codes which the user can issue via the CP EXTERNAL command. The control blocks used by CIAMDBMS and CDBSVMCF can be displayed using one of the reserved external interrupt codes, allowing for inspection of the control blocks dynamically. A second external interrupt code is reserved to cause the complete system shutdown. The system can also be shutdown by the CMS immediate commands "kx" (Kill eXecution) or "hx" (Halt eXecution).

Being interrupt driven, the backend machine must use caution in modification of the shared data structures that control the data structures defining the free port list and the executing port list. The Set System Mask instruction surrounds these Critical Regions to disallow interrupts during modification of the shared data structures. CIAMDBMS is new software implemented entirely for CIAM.

Chapter III

DESIGN

The following chapter provides the reader with a brief over-view of the CIAM access method. Specific low-level details of the access method are covered in Chapter IV, Internals.

Three distinct parts make up CIAM software, these are:

1. IDMSDMLP pre-processor protocols
2. User interface software -- CIAMUSER
3. Database interface software -- CIAMDBMS

3.1 CIAM ENVIRONMENT UNDER VM

Figure two illustrates the relationships of application programs using CIAMUSER, and the backend database virtual machine using CIAMDBMS. The outermost box represents the Control Program (CP) which controls execution of all virtual machines running under it. Under CIAM, for each backend database machine (Virtual Machine 3 in this example), up to 254 application machines (Virtual Machines 1 and 2 in this example) can be using its services. It is possible to have as many separate backend database machines as necessary running under VM.

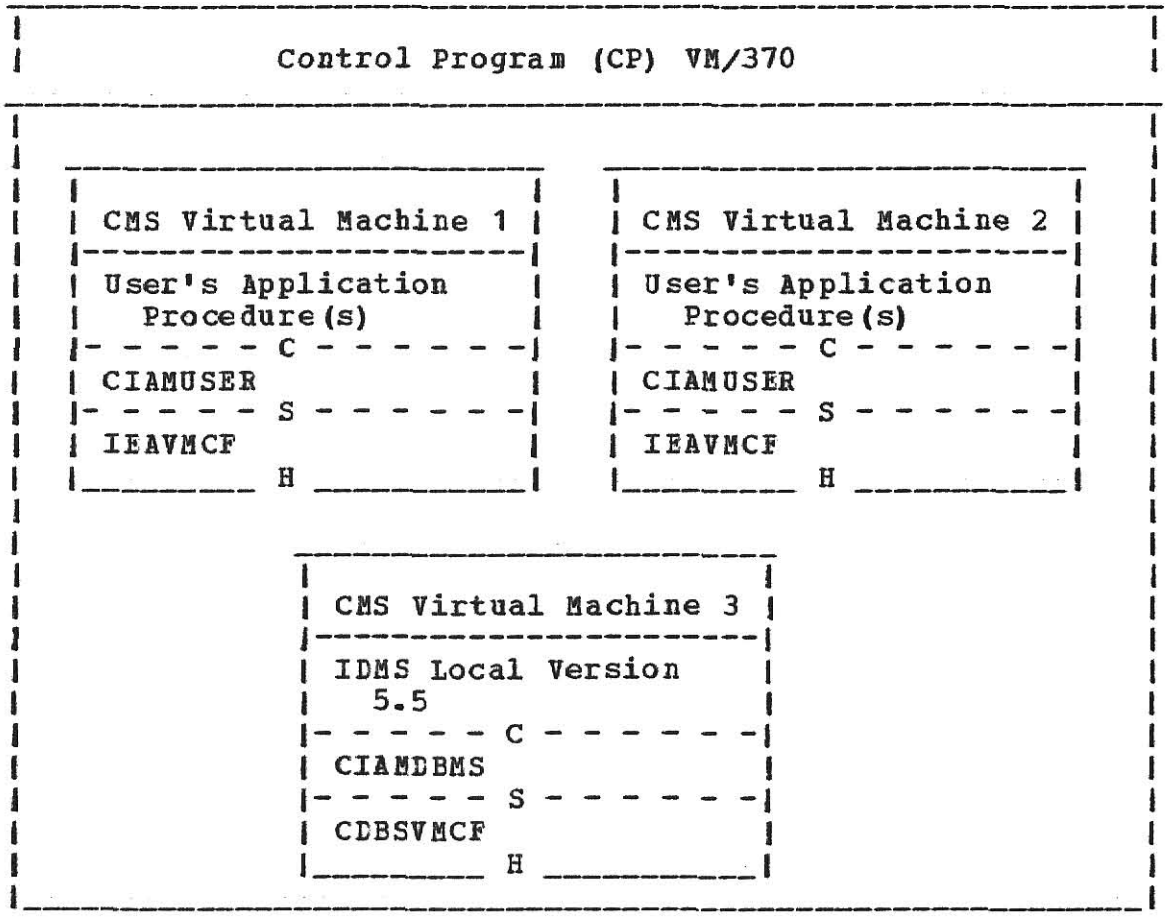


Figure 2: Operating Environment for CIAM

Several layers of software exist for both the application virtual machines and the database virtual machines. The user application programs communicate through CALL/RETURN linkage[9] to the entry point CIAMDML within CIAMUSER. CIAMUSER communicates to the backend database machine

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[9] Indicated by a "C" between the User's Application Procedure(s) and CIAMUSER on figure two.

through IEAVMCF by the supervisor call instruction.[10] IEAVMCF, communicates to its counterpart CDBSVMCF in the backend machine via the VMCF diagnose instruction, diagnose 68.[11]

The backend machine receives requests for service through CDBSVMCF. CDBSVMCF, a specialized version of IEAVMCF, communicates to the application machines through the VMCF diagnose. Communication to CIAMDBMS is through the supervisor call instruction, SVC 211. CIAMDBMS invokes IDMS through standard call/return linkage conventions with the modifications as detailed in Chapter Four.

3.2 IDMSDMLP PRE-PROCESSOR PROTOCOLS

IDMSDMLP is a table-driven pre-processor supplied with the IDMS system. Using information stored in the data dictionary and control statements in the user's program, the pre-processor expands the statements (commonly referred to as data manipulation language statements, or DML statements) into PL/I statements. The mode setting of "CIAM" in the user's program, causes the IDMSDMLP pre-processor to use macros designed for CIAM. The form of this expansion is controlled by the CIAM protocol which the database administrator has added to the data dictionary. Appendix A lists

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[10] Indicated by an "S" between the CIAMUSER user interface and IEAVMCF on figure two.

[11] Indicated by an "H" between IEAVMCF and the boundary of the Virtual Machine box -- indicating communication to the control program, routine DMKVMC.

the protocols used for CIAM.

The design of the CIAM protocols was forced by the communication access method used. The arguments for each DML statement, which are converted to parameters for a call to the entry point CIAMDMI, must all be in a contiguous area of memory. The CIAM protocol insures the arguments are in a contiguous block of memory, thus at compile-time the addresses of the arguments are verified. By checking the addresses of the arguments at compile-time it was possible to remove a large amount of code from an earlier version of CIAMUSER which performed address checking at run-time. The end result of the current design is faster execution at run-time, plus a reduction of code generated at compile-time.

3.3 USER INTERFACE SOFTWARE -- CIAMUSER

CIAMUSER is a collection of subroutines that provide the interface between the user's program (commonly referred to as a "run-unit") and the communication software. The DML statements, as expanded by the IDMSDMLP pre-processor, call the external entry point CIAMDML within the CIAMUSER subroutine package. The only difference to the application programmer when running under CIAM services is that the MODE setting is "CIAM" instead of, for example, "PLIOPT". Certain DML statements cause the CIAMUSER subroutine package to initialize communication to the database service machine,

and likewise, other DML statements cause termination of requests of the database service.

3.4 DATABASE INTERFACE SOFTWARE -- CIAMDBMS

The database interface software, CIAMDBMS, runs in a virtual machine to serve requests from the user machines. The design of CIAM allows CIAMDBMS to run as a disconnected virtual machine, i.e. no operator intervention is required once the initialization of CIAMDBMS is complete. As noted later, CIAMDBMS through IEAVMCF, can be run in the batch environment;[12] however, in this initial implementation it runs in a CMS virtual machine.

The execution of CIAMDBMS, after the sequential initialization code, is driven by the communication interrupts generated by VMCF, and the timer interrupts generated by the Control Program external clocking facility.

3.5 FLOW OF CONTROL -- USER'S MACHINE

To better understand the actions of the CIAM access method a simple illustration follows of the flow of control of the user's machine as it executes the program ADDIR.[13]

1. ADDIR issues the BIND RUN-UNIT dml statement. (line 195 in ADDIR)
2. CIAMDML obtains control from the CALL CIAMDML in ADDIR.

---

[12] OS/MVT at Kansas State University.

[13] Refer to Appendix D for a listing of the program.

3. CIAMDML maps the argument pointers into offsets from the start of the CIAM_CB.

4. CIAMDML inspects the DML function code, determines that the code is 59, BIND RUN-UNIT, and branches to CIAMINIT.

5. CIAMINIT clears the status flags, initializes required fields and initializes IEAVMCF communication.

6. CIAMINIT sends a request to CIAMDBMS at the well known port 255, known as the PORT AUTHORITY for a allocation of a port.

7. CIAMDBMS allocates a port, authorizes communication between the user requesting the port and itself, allocates storage for the CIAM_CB, and returns the port number to CIAMINIT.

8. CIAMINIT stores the returned port id, and returns to CIAMDML.

9. CIAMDML stores the current DML code for use by CIAMDBMS, increments the message identification number and sends the database request to CIAMDBMS.

10. CIAMDBMS performs the database service and returns the resultant information to the user requesting the information.

11. CIAMDML returns to ADDIR.

12. ADDIR, now fully connected to the database machine, performs the DML statements as follows:

13. ADDIR issues the BIND RECORD(DIRECTOR) statement (line 204 in ADDIR).

14. CIAMDML obtains control, maps the arguments, checks the DML function code, notes that it is not BIND RUN-UNIT, thus increments the message identification number and sends the request to CIAMDBMS.

15. CIAMDBMS performs the database service and returns the resultant information to the user requesting the information.

16. CIAMDML returns to ADDIR.

-- All other DML statements are handled as steps 12 through 16 until the FINISH DML statement is serviced by CIAMDBMS, in which case step 15 is modified as follows:

15a. CIAMDBMS performs the database service, returns the resultant information to the user requesting the information, and releases the port and the storage obtained for the user.

3.6 FLOW OF CONTROL -- DATABASE MACHINE

CIAMDBMS, the backend database handler executes in a CMS virtual machine running in virtual supervisor state. The initialization segment of CIAMDBMS, known as CDBSINIT, handles initialization of the control data structures and requests that the CMS supervisor pass control to CDBSVMCF on the appropriate supervisor call or upon external interrupts. After successful initialization, a wait state is entered by the entry DMLEXEC in CIAMDBMS, awaiting a request for service from another virtual machine running under CIAM protocol.

When the application program running under CIAM protocol, makes a request,[14] an external interrupt is reflected to the database machine. The initialization has arranged that entry VMCFEXT in CDBSVMCF gains control and processes the external interrupt. An VMCF external interrupt causes CDBSVMCF to insert the request in the linked-list of pending requests and invoke CDBSPOST to awaken the DML executor, DMLEXEC, and to insert the port into a linked-list of ports

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[14] Step 6 in the "Flow of Control -- User's Machine", page 18.

awaiting service.

DMLEXEC, upon the awakening, determines whether the request is for a port allocation, in which case entry PORTAUTH in CIAMDBMS is passed control, or for a DML execution, in which case execution continues in DMLEXEC. The entry PORTAUTH allocates a port from the linked-list of free ports, allocates memory for a working copy of the CIAM_CB, and requests that CDBSVMCF make a logical connection between the backend database machine and the application machine. The port identification number is returned to the application machine for later use.

Requests for DML executions are un-linked from the list of ports awaiting service. The argument list to be passed to IDMS is constructed by taking the offsets into CIAM_CB, as constructed by CIAMUSER, and adding the address of the CIAM_CB working copy in the backend machine. This argument list is then passed to IDMS to perform the requested database service. The results of the database service are all returned within the CIAM_CB, thus CIAMDBMS reflects the result of the database service by returning the CIAM_CB to the user's program.

The remaining step CIAMDBMS must perform is removing ports from use when no longer needed. To determine when this has happened, CIAMDBMS examines the DML function code for a ROLLBACK or FINISH. The use of either DML code indicates the user program no longer has need of CIAM/IDMS services; thus the port and CIAM_CB working copy are de-allocated.

Chapter IV

INTERNALS

The following chapter details the internals of CIAM. The reader of this chapter should be familiar with CMS internals, including OS simulation, along with assembler level programming. The preceding chapter should provide a high-level overview of the details covered in this chapter.

4.1 CIAM PROTOCOLS

As noted in Chapter II, the arguments for a DML request must point to contiguous memory locations in the CIAM_CB. The DBA must add the CIAM protocols to the data dictionary prior to the user's compilation of the DML source programs. The DBA adds the protocols by issuing the command IDMSDBAU, an exec[15] procedure used for data dictionary maintenance. Prior to adding the CIAM protocols, the DBA inserts the virtual machine identification of the database machine (DBMS_ID), and the maximum number of seconds to wait for service of a DML request (DML_TIMEOUT). Appendix A lists the CIAM protocols; Appendix B shows a sample program after processing by the IDMSDMLP [14] exec.

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[15] CMS command language file, much the same as Job Control Language in IBM OS systems. Refer to [14] for further information.

One of the goals of CIAM was to make the access method as transparent as possible to an application programmer; Appendix F shows an example source program that the application programmer prepared to use the CIAM access method. Changes that were required to run under CIAM are underlined. In line 6, CIAM is indicated as the MODE for which the IDMSDMLP pre-processor is to operate; in line 9, CIAMERR_ONCOND rather than IDMSERR_ONCOND is retrieved from the data dictionary; and in line 10, module CIAM_MAIN is retrieved from the data dictionary. Had this procedure been a separately compiled subroutine, rather than the main procedure, the application programmer would have retrieved the module CIAM_CB on line 10.

Several tricks were necessary to achieve the original goal of modifying the minimum of existing software. The major problems were the character string literals corresponding to the Set, Record, Area and Sub-schema names, since the compiler generates literals in a common literal pool. A first attempt at a solution was to copy the out-of-range arguments to a work area inside the CIAM_CB, then modify the argument pointer to point to this work area. A second approach was chosen which capitalizes upon the way in which the IDMSDMLP pre-processor expands the DML statements. The symbols beginning with "@" in the protocol macros correspond to arguments on the DML statement.[16] If for a given DML

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[16] Refer to Appendix K - Protocol Listing

statement, the "@" variable is null, the entire line containing the "@" variable is not placed in the compilation file. Inclusion of "@" variables in comments, where they are otherwise ineffective, offers a means of suppressing lines of source code associated with null variables completely. The "@" variables correspond to the Sub-Schema, Record, Area and Set pre-processor literals generated by the DML expansions. The important concept to understand about the CIAM protocols is that literals generated by the IDMSDMLP pre-compiler are inserted into the CIAM_CB (where they are within the required bounds) prior to the call to CIAMDML. Figure three illustrates the above mentioned expansion. The BIND RUN_UNIT DML statement identifies to the database procedure the name of the sub-schema that the program is running under, passing the information in the fourth parameter.

The DML statement: BIND RUN_UNIT;

Expands into:

```
DO;
CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0001;
CIAM_CB.ID.SUB_SCHEMA='FINANCE  ';
CALL CIAMDML (
  CIAM_CB, IDBMSCCM(59), SUBSCHEMA_CTRL,
  CIAM_CB.ID.SUB_SCHEMA /*FINANCE       */ );
END;
```

Figure 3: Example of DML statement expansion

Refer to Appendix A for the format of the CIAM DML prototype. Figure three illustrates that since the Record, Area, and Set variables in CIAM_CB.ID were not required for the BIND RUN_UNIT DML, they were not expanded prior to the call to CIAMDML. Appendix D lists the sample program, ADDIR, after it has been processed by the IDMSDMLP exec.

The CIAM_STATUS procedure and CIAMERR_ONCOND[17] replace the IDMS_STATUS and IDMSERR_ONCOND found in the standard PL/I data-dictionary. The function is the same: to display an error message and then terminate the application task; the fields that are displayed are different however, covering control information in the CIAM_CB.

Two versions of CIAM_CB exist: one for the main procedure, and one for externally compiled procedures. They differ in that CIAM_MAIN allocates the storage[18] for the control block and sets the external pointer CIAMPTR, whereas CIAM_CB just copies in the control block and uses the value in the external pointer CIAMPTR.

The fields DATE_TODAY and TIME_TODAY in CIAM_CB are initialized with the successful execution of the BIND RUN-UNIT DML statement and the ACCEPT IDMS_STATISTICS DML statement.

The database administrator would modify the field DBMS_ID to the virtual machine identification (VMID) of the backend database machine.[19] If a different time-out value than 60

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[17] Refer to Appendix K - Module listing.

[18] Via the ALLOCATE PL/I built-in function.

seconds were desired, the field DML_TIMEOUT would be modified, indicating the number of seconds for which one is willing to wait upon each DML request. After the required modifications are made, the data base administrator would use the IDMSDBAU exec to add or update the CIAM protocols in the dictionary.

4.2 CIAMUSER -- USER INTERFACE

CIAMUSER is the user interface to the database machine, and consists of six procedures discussed below.

4.2.1 CIAMDML

CIAMDML is the only entry point called directly by the user's program. When CIAMDML is entered, the argument list is converted from a list of addresses of arguments to a list of offsets of the arguments from the beginning of CIAM_CB. Next the current DML function code is determined and stored for later use. If the current DML function code is BIND RUN_UNIT, the machine is initialized for communication via CIAMINIT. If the ROLLBACK DML has ever been executed or the machine has abnormally terminated, further execution is prohibited, and control is returned to the users program after error message CIAM$D215E is displayed, indicating that the DML request was not serviced.

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[19] The tests were run with DBMS_ID = 'VM6L8'.

Next, if the machine is authorized for communication (i.e. the Bind Run-Unit successfully initialized the machine), the message identification number is incremented[20] and the message is sent to the backend machine via internal procedure SENDRECV. When the reply is received from the database machine, the DML code is checked. If it is a FINISH, the internal termination routine, INTRNXIT in CIAMTERM is branched to. If it is ROLLBACK the procedure ROLLBACK services the request. Finally, control returns to the user's program at the statement following the call to CIAMDML.

4.2.2 CIAMINIT

CIAMINIT is called by CIAMDML to initialize the users machine for IEAVMCF communication and initialize the DB_STATISTICS fields. The clock comparator is set to 'FFFFFFFFFFFFFFFF'X, effectively turning off clock interrupts, and bit 25 of control register zero is turned on to allow clock interrupts for DML timeout purposes. A hook is placed in the CMS system supervisor routine DMSABN to cause routine CIAMTERM in CIAMDBMS to be called in an abnormal termination situation. The virtual machine is next authorized for IEAVMCF communication. This means that IEAVMCF,[21]

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[20] The message identification is reset to 4 if it becomes equal to '7FFF'X, to prevent overflow.

[21] Refer to section 4.3 IEAVMCF -- Modifications.

will invoke the procedure CIAMTOUT[22] upon receiving a non-VMCF external interrupt.

Next a port request is made of the port authority.[23] The port authority, on successful allocation, returns the port identification which the user should use for CIAM access. The user is then un-authorized from the port authority and authorized to the port returned by the port authority.

CIAMINIT now returns to CIAMDML at label DODML to send the DML request to the backend machine.

4.2.3 CIAMTERM

CIAMTERM handles termination of CIAM services for the virtual machine. This termination can be the result of an ABnormal END (ABEND) situation[24] or of the epilogue action of the ROLLBACK or FINISH DML statements.

If entrance is due to an ABEND, message CIAM$T210I is printed at the console indicating the situation. The hook that CIAMINIT supplied to gain control from DMSABN is restored to its previous value, and the flag[25] indicating that DMSABN should call a procedure on ABEND is cleared.

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[22] The address in the field VMCPVADB of the VMCF parameter during the AUTHORIZE request.

[23] Port 255 by convention of the database machine.

[24] Whether generated by the user issuing the CMS immediate commands 'hx' or 'kx' (Halt eXecution, and Kill eXecution, respectfully) or via program action.

[25] Bit FMRUN in KSUFLAGS, located in the CMS nucleus.

If the machine has successfully been initialized, the un-authorize function of IEAVMCF is used to terminate IEAVMCF activity, and control register zero is restored to its value previous to the CIAMINIT call. Routine VMCFTERM, an external entry point in IEAVMCF, is called to restore the CMS environment that was modified by IEAVMCF.

Return from subroutine CIAMTERM is through a series of conditional branches. The condition tested in these branches is the cause of entry into CIAMTERM. If entrance was via timeout, return is made to CIAMTOUT. If entrance to CIAMTERM was because the ROLLBACK DML was executed, control is passed to procedure ROLLBACK. Otherwise, the procedure exits and returns to the user's program at the statement following the call to CIAMDML.

4.2.4 SENDRECV

SENDRECV is an internal procedure which handles all IEAVMCF requests for send/receive functions. When SENDRECV is entered, register one contains the address of the VMCPARM, the IEAVMCF parameter list for this request. Register fourteen contains the return address.

The clock comparator is set according to the DML_TIMEOUT value stored in the CIAM_CB. Next, the actual send/receive request is made of IEAVMCF. If return from the send/receive request indicates the DML request has not yet been serviced, the virtual machine is put into a wait state

awaiting notification from the database virtual machine of successful data transfer.

The unstack function of IEAVMCF is then used to receive confirmation that the message was successfully sent and replied to. Should the unstack function note an error situation the appropriate error message is generated, (CIAM$S207E, CIAM$S208E, CIAM$S209E, CIAM$S210E), CIAM control storage is dumped, and control is returned to the user's program at the statement after the call to CIAMDML. Normal error-free cases cause control to return to the address in register fourteen.

4.2.5 CIAMTOUT

CIAMTOUT is entered when any non-VMCF external interrupt occurs. When CIAMTOUT is entered the half-word pointed to by register one at offset 98 contains the external interrupt code. If the interrupt code is '00D1'X, the code assigned for the user to issue via the CP EXT D1 command to dynamically display the control blocks, CIAM control storage is dumped, and control is returned to the user. If the interrupt is not from the clock comparator it is ignored, and control is returned to CIAMTOUT's caller.[26] When a clock comparator interrupt occurs, the clock comparator is turned off to prevent later time-outs and a flag is set indicating that CIAMTOUT code is in process. Routine CIAMTERM is en-

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[26] IEAVMCF external interrupt handler.

tered via the internal entry point INTRNXIT, which terminates IEAVMCF communication for the user. Message CIAM$T207E is printed on the console indicating the timeout situation. CIAM control storage is then dumped to help determine the possible cause of the error. Finally CIAM$ECB, the event control block that the DML request awaits is posted with a completion code of '1004'X which indicates the reason for un-successful operation, and control is returned to IEAVMCF external interrupt handler.

4.2.6 ROLLBACK

After the DML request has been serviced by the backend database virtual machine, and if the DMI code indicates the DML statement is a ROLLBACK, the subroutine ROLLBACK is called. Upon entry, ROLLBACK calls CIAMTERM (via internal entry point INTRNXIT) to terminate IEAVMCF, then displays message CIAM$T208E indicating that the ROLLBACK DML has been executed. A flag is then set to disallow further DML statements,[27] and then CIAM control storage is dumped with return to the user's code.

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[27] This flag is cleared by CIAMINIT, which is called by the BIND RUN-UNIT DML (DML function code=59).

4.3 IEAVMCF — MODIFICATIONS

IEAVMCF is Mr. Robert Young's modification to IBM's Virtual Machine Communication Facility (VMCF) [14]. IEAVMCF uses standard IBM SVC linkage conventions, which are more understandable than the diagnose linkage conventions that VMCF uses. The major enhancement of IEAVMCF is the ability to process up to 255 separate communication paths for each virtual machine. IEAVMCF furthermore is included in the OS nucleus as an extension of the OS first level interrupt handler thus allowing OS tasks to use VMCF facilities.[28]

CIAMUSER uses IEAVMCF with one modification. The authorize section of IEAVMCF checks to see if the user desires to handle non-VMCF external interrupts. To indicate this, the user (of IEAVMCF which is, in this case, CIAMUSER) must perform the following:

1. Set the user double word (VMCPUSE) in the IEAVMCF parameter list to 'EXTERNAL'.
2. Have the address of the procedure to handle the non-VMCF external interrupts in the field VMCPVADB in the IEAVMCF parameter list.
3. Not previously have set the address. (IEAVMCF stores the address passed in VMCPVADB in the field XTRPTAD.)

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[28] Although not done in this implementation, by using CDBSVMCF, rather than VMCF, CIAMDBMS, the backend database handler can run as a task in OS, rather than as a program under CMS.

Refer to Appendix C for a listing of IEAVMCF code. Note that IEAVMCF UPDT0001 consists of those modifications that were required to make IEAVMCF call an external procedure on a non-VMCF external interrupt.

4.4 CIAMDBMS -- DBMS INTERFACE

CIAMDBMS is the interface program between IDMS and users of IDMS services. The interface consists of four external entry points and several internal procedures, all of which are discussed in this section.

4.4.1 CDBSINIT

CDBSINIT is responsible for initializing or re-initializing the backend machine environment. Label REINIT (statement 29 in CIAMDBMS) is branched to by error recovery code to re-initialize the machine.

CDBSINIT arranges that the CMS supervisor ABEND procedure will cause entry point CDBSTERM to be called when an ABEND occurs. Note that the CMS immediate commands 'hx' (Halt eXecution) and 'kx' (Kill eXecution) simulate an ABEND, and thus cause CDBSTERM to be invoked.

The port list, consisting of 255 ports, each with a 12 byte descriptor, is next initialized. Figure Four illustrates the layout of the Port List.

For each port, three fields must be initialized; the event control block (PORT$ECB), the next runable port pointer

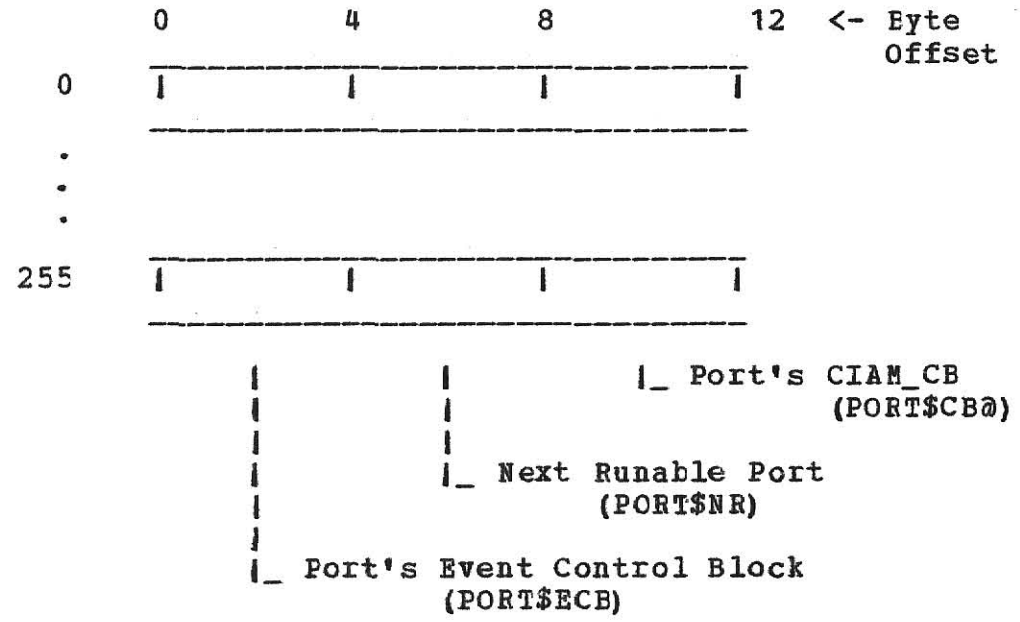


Figure 4: Port List

(PORT$NR), and the CIAM control block pointer (PORT$CB@). Each PORT$ECB is cleared to zero. The PORT$NR fields points to the next port in the port list, with port 254 having the value negative one ('FFFFFFFF'X), indicating end-of-list. In the PORT$CB@ the port number (0 through 254 inclusive) is stored in byte 3 (bytes are numbered 0,1,2,3) for future use. The head of this list of free ports (PA$FLST) points to the first free port (initially Port 0), and as noted above, each port then points to the next free port. The port authority, port 255 by convention is initialized for use by CIAMDBMS.

The CMS machine is next initialized for communication by calling external entry VMCFINIT in the backend database vir-

tual machine version of IEAVMCF, CDBSVMCF. Next, the clock comparator is initialized. CDBSVMCF communication is then allowed, via the GENERAL AUTHORIZE request. As for CIAMUSER, an address is supplied to CDESVMCF[29] for it to call upon receipt of a non-VMCF external interrupt.

Finally, CIAMINIT logs the fact the machine is initialized, and passes control to DMLEXEC (described in section 4.4.3) in order to perform DML requests for users.

4.4.2 CDBSPOST

CDBSPOST is a extension of CDBSVMCF's external interrupt handler. The procedure is called every time an ECB for a port is posted. The purpose of CDBSPOST is to add to (or possibly create) the list of ports for which there are either pending DML requests, (Ports 0 through 254) or requests for Port allocations (Port 255).

The head of the list of ports awaiting service (PA$FIRST) is examined to determine if there are currently any active ports (i.e. ports for which there is a outstanding DML request). If there are not any outstanding requests, then control passes to label FIRST (statement 186 in CIAMDBMS). The runable-port-list is created, having both PA$FIRST, and the pointer to the tail of active ports (PA$LAST) pointing to the now awaiting port. The ECB for the DML executor, DMLEXECB, is posted to allow service of the port.

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[29] In the VMCPVADB field of the CDBSVMCF parameter list.

If the pointer to the first port awaiting DML service (PA$FIRST) is not null, indicating there are ports awaiting service, the address of the port now requesting service is examined. If the address corresponds to the address of the PORTAUTH, the request is inserted into the head of the runable-port-list. Should the request not be for the PORTAUTH, the request is inserted into the tail of the runable-port-list. In either case, control is then returned to CDBSVMCF.

4.4.3 DMLEXEC

DMLEXEC services all requests for either DML execution or port allocations. When DMLEXEC is entered, interrupts are disabled, and the runable-port-list is examined. If there is no work to be done (as is the case initially) a branch is taken to label NOWORK where the clock comparator is set, and a wait state is entered. Exit from the wait state occurs when the DMLEXECB ECB is posted (by CDBSPOST) or when a timecut occurs.[30]

When there is work to be done, the first port on the run-list is un-linked. The port just un-linked, referred to as the "current port", is used to unstack the external interrupt information held by CDBSVMCF. The function code of the original request is examined, and ifit is not a SEND/RECV CDBSVMCF protocol, the request is rejected (via internal procedure REJECT).

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[30] CDBSTOUT upon a clock comparator interrupt sets the ECB for the DMLEXECB to a completion code of '1004'X.

A check is made to see if the request is for port 255 (the PORTAUTH), and if so, a branch is made to PORTAUTH, returning to DMLEXEC. Should the request be for DML service (Ports 0 through 254) execution continues. If the unstack operation did not clear the ECB for the current port, (meaning there are multiple requests for this port)[31] the current port is linked into the run-list at the tail of the list.

Next, the request is received, using the receive function of CDBSVMCF, which does the actual transfer of the CIAM_CB from the user's virtual machine to the database virtual machine. When the receive function is successful, the argument list stored in CCB$ARGS (a field within CIAM_CB) is converted from offsets from the begining of the CIAM_CB to absolute addresses in the database virtual machine. Following standard parameter linkage conventions, the last argument's high-order-bit (Bit 0) is turned on to indicate end-of-list.

Next IDMS determines a unique identifier for each RUN-UNIT using its services by appending the contents of register 14 to the PROGRAM field (Register 14 is the subroutine return point by OS conventions). Since all DML requests are executed by DMLEXEC, all from the same statement (statement 336 in CIAMDBMS), a severe limitation would be

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[31] This should not occur in the initial implementation, as users wait for the reply of a DML request; however, further implementations of CIAM might allow this asynchronous communication protocol which would require the multiple-request check.

imposed by CIAM. Namely, every user of the CIAM database machine would require a unique PROGRAM name (much as JOB names in IBM's OS systems are required to be unique). A solution is as follows: in every CIAM_CB at displacement BR_10 the machine instruction BR R10[32] is "assembled".[33] Register 14 is loaded with the address of BR_10 in the current port's CIAM_CB, and the machine instruction BALR R10,R15[34] is executed. IDMS, assuming that it has been called by a BALR R14,R15[35] machine instruction takes the address of BR_10 as the return address and appends it to the contents of field PROGRAM. IDMS performs the DML service, and the result of the service is logged upon the database machine console.[36] IDMS returns control to offset BR_10 in the current port's CIAM_CB. As noted earlier, the instruction at BR_10 does an immediate branch using the contents of register 10, thus returning to the DMLEXEC code.

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[32] Branch to the contents of register 10.

[33] Actually, field BR_10 is set by the INITIAL attribute in the PL/I declaration.

[34] Branch to the address in register 15, save the address of the next instruction that would have been executed if the branch had not occured in register 10.

[35] Branch to the address in register 15, save the address of the next instruction that would of been executed if the branch had not occured in register 14.

[36] Refer to Appendix J - Console Logs, for examples of information logged by CIAMDBMS.

Next, the resultant CIAM_CB from the DML service is returned to the user's machine via the reply CDBSVMCF function. Upon successful reply, the DML code for the port whose DML just executed is checked. If the DML code is FINISH or ROLLBACK, the entry point REMPORT is branched to for de-allocation of the current port. If the code is any other, control is returned to the label DMLEXEC to service the next DML request.

4.4.3.1 NOWORK

NOWORK is branched to when the run-list is empty. The clock comparator is set to timeout after awaiting CCBTOL seconds (this implementation set the limit to 45 minutes). The WAIT supervisor function is then issued, waiting for CDBSPOST to be entered and to post DMLEXECB. When DMLEXECB has been posted, the comparator is effectively turned off and a branch is taken to DMLEXEC to service the port on the run-list. If DMLEXECB is not posted after CCBTOL seconds, the clock comparator external interrupt is raised causing DMLEXECB to be posted with a return code of '1004'X.

4.4.3.2 REJECT

REJECT merely logs the rejection of a protocol violation[37] and notifies the user machine (via the reject function code of CDBSVMCF). The message (CDBS$D026E) is logged

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[37] CIAM only uses the SEND/RECV protocol.

on the database machine console noting the rejection.

4.4.3.3 PORTAUTH

PORTAUTH handles all allocation of ports from the list of free ports. The procedure is branched to from DMLEXEC when a request for the port 255 (The Port Authority) is unstacked.

Step one is to receive the port request via the receive function of CDBSVMCF. Then the list of free ports is examined to determine if there is an available port. Should all of the ports be allocated, message CDBS$P012E is printed on the console, and a error status is returned to the user's port request. When ports are available, memory for the port is allocated using the CMS system storage management procedure DMSFREE [6]. Should memory be exhausted, message CDBS$P013E is printed, and the error status is returned to the user. If space is available, an "authorize specific" [15] request is made of CDBSVMCF to connect the user virtual machine and the just allocated port of the database virtual machine. Should CDESVMCF reject the authorize specific request, message CDBS$P014E is printed upon the console. Whether the allocation is successful or not, the status of the request is returned to the user in the port request control block (PORTRCB) at displacement 4, which is then used by CIAMUSER procedures.

If no error occurred during the port request sequence, message CDBS$023I is printed upon the console indicating the successful port request; error situations, if they caused harm, have to be repaired. The conditions of no available ports, and un-successful receive of port request are harmless, and in these cases, control is passed to CHKPAECB (in PORTAUTH). All other error situations require error recovery. Step one in error recovery is to reclaim the allocated port and put it on the list of free ports. Secondly, memory allocated via DMSFREE is de-allocated by the CMS system storage management procedure DMSFRET [6]. Registers 0 and 1 are saved when the DMSFREE request was originally done, thus the call to DMSFRET is done using the returned values from DMSFREE. These registers contain the address of the area allocated (register 0) and the length of the area actually allocated (register 1). Should DMSFRET raise an error, message CDBS$P029E is printed upon the console logging the error.

Whether error recovery or successful port allocation was done control finally reaches CHKPAECB. At this point, the ECB for the PORTAUTH is examined to determine if the ECB was cleared by the unstack request of CDBSVMCF by the DMLEXEC code. If the ECB is not cleared (meaning there exist multiple pending port allocation requests), control returns to label UNSTACK in DMLEXEC to retrieve the external interrupt information for the next port allocation request. A cleared

ECB causes control to be returned to DMLEXEC to service the next CIAM request.

4.4.4 REMPORT

REMPORT is called by either a FINISH DML request (DML function code=02) or ROLLBACK DML request (DML function code=67). A message is printed on the console, indicating the reason for the port de-allocation (messages CDBS$R016I and CDBS$R017I respectively). First the port is un-authorized to de-allocate the port and cause any pending interrupts[38] on the port to be rejected, with the VMCPUSE field in the CDBSVMCF parameter list of the sending interrupt set to 'UNAUTH '.

The port that has been de-allocated is then re-linked to the list of available ports. Control is passed to DMLEXEC to service the next CIAM request.

4.4.5 CDBSTERM

CDBSTERM is entered to terminate CIAM services for the machine. Entry via the external entry point CDBSTERM is via a branch from DMSABN, the CMS system supervisor ABEND procedure. Message CDBS$T020I is printed on the console to log the ABEND. The remainder of CDBSTERM, excluding the return-to-caller code is common between external entry and internal

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[38] Under the initial implementation of CIAM, this situation can not occur; however, later modifications of CIAM may use this feature.

entry via the label INTRNXIT.

The first step is to reset the flag[39] requesting that DMSABN should call a supplied procedure when an ABEND occurs. CDBSINIT set this flag during initialization. Next the entire port list is examined, one port at a time, determining if each port is active, and if active,[40] removing the port from active service. This removal is via a three step process.

1. {For all but the port authority (port 255)} the dynamically acquired memory for the port control block (CIAM_CB) is released (via DMSFRET).
2. The current port is removed from CDBSVMCF services via the un-authorize function.
3. The current port is re-linked into the list of available ports.

Message CDBS$T022I is logged upon the console indicating that the port has been re-claimed, and, if the user identification of the user's machine is valid, the de-allocation message is sent to the user via the CP MSG command.

After all ports have been re-claimed, CDBSVMCF services are terminated via the call to VMCFTERM, and control register zero (the VM control register) is restored to its value

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[39] Bit FMRUN in KSUFLAGS, located in the CMS nucleus.

[40] This is determined by comparing the CIAM control block address (PORT$CB@) against 'FF'X. PORT$CB@ less than or equal to 'FF'X are considered to be in-active ports.

prior to CBBSINIT. CDBSTERM then returns to its caller, depending on how it was invoked. If CDBSTERM was called from CDBSTOUT for timeout or forced system re-initialization, control returns to label REINIT in CDBSINIT. If CDBSTERM was called to request logoff of CIAM services, control returns to the system supervisor, CMS; otherwise, control returns to CDBSTERM's caller, DMSABN.

4.4.6 CDBSTOUT

CDBSTOUT handles all non-VMCF external interrupts. Besides the clock comparator interrupt, three other reserved codes are recognized and handled by CDBSTOUT. The CP EXT D1 command is used to dump a copy of all CDBS control blocks. CP EXT D2 is used to force a system re-initialization. Finally CP EXT D3 is used to terminate CIAM services for the machine. All other external interrupts are simply ignored, with control returning to CDBSVMCF's external interrupt handler.

When the clock comparator raises an external interrupt (meaning the machine has been asleep longer than CDBSTOL seconds), the current users (if any) are forced off the system, and the system is re-initialized.

4.5 CDBSVMCF -- MODIFICATIONS

CDBSVMCF is a modification of IEAVMCF, thus is nearly the same as IEAVMCF, but with one additional modification. The need to schedule ports for DML execution, coupled with the CMS architecture of a single tasking environment, meant the backend code (CIAMDBMS) had to be interrupt driven; i.e. that DML executions be scheduled via external interrupts. Therefore, when the ECB for a given port has been posted by CDBSVMCF, a call is made to procedure CDBSPOST to schedule the port for execution. Refer to CDBSPOST for further discussion on the scheduling activities. Appendix H lists the CDBSVMCF code. Note that CDBSVMCF UPDT0001 consists of the modifications to allow CDBSTOUT to obtain control on non-VMCF external interrupts. CDBSVMCF UPDT0002 is the modification that causes CDBSPOST be invoked when a port's ECB has been posted.

Chapter V

SUMMARY

5.1 CONTRIBUTIONS TO COMPUTER SCIENCE

The design and implementation of the Concurrent IDMS Access Method has been an interesting and most rewarding experience. During the development and implementation of CIAM, various principles of Computer Science were employed.

The sheer size of the CIAM software, both the user interface and the database interface, required control over modifications. Using good software engineering techniques, the update procedure used by IBM for VM software was employed. This same update technique was used to modify IEAVMCF for CIAM use, a situation where an excellent update technique was absolutely necessary, i.e. modifying existing correct software.

The general flavor of CIAM is of a message buffer system. Indeed a considerable portion of the design of CIAM was influenced by principles of message buffer systems. The back-end code, CIAMDBMS, could be viewed as a group of processes as in Concurrent Pascal. The Set System Mask[41] instruction around critical regions corresponds well to the monitor gate

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[41] Supervisor state machine instruction to enable/disable interrupts.

concept.

Specifically CIAM differs from message buffer systems in the well defined, closely integrated interface to IDMS. The development of this well integrated interface required intensive study and testing of the internals of IDMS. It should be very clear, though, that the design of CIAM was made as release independent as possible to prevent massive re-design necessitated by future releases of IDMS products.

5.2 EXTENSIONS

CIAM, in this initial implementation, is built around the programming language PL/I (Optimizing version). One extension would call for CIAM to support calls from any language.[42]

A secondary extension would call for CIAMDBMS, during port request allocation, to handle the condition of no ports being available by reclaiming an in-active port for use by the new port requester.

A third extension would be for CDBSTERM, during ABEND processing, to determine if the ABEND should affect all CIAM users (as is currently the case) or just the port for which the ABEND was intended.[43]

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[42] Note, that a general requirement for CIAM is that the language support imbedded comments within a statement.

[43] Associating the ABEND with the correct user is a major problem.

As noted in Chapter One, CIAMDBMS runs with the Local Version of IDMS, so the implementation of CIAMDBMS with the Central Version could, and probably should be considered an extension. The design of IEAVMCF allows the backend interface program to execute as a task in OS, so the implementation of CIAMDBMS with the Central Version would probably see the backend code executing as a task in OS, rather than as a program in CMS.

Asynchronous operation of CIAM services is an area touched on in Chapter Four that could be developed in the future. Rather than putting the user's machine in a wait state, awaiting the service of the DML request, CIAMDML would return to the user's code. Initial design considerations would have the DML_TIMEOUT field in the CIAM_CB contain a value of zero to indicate the request for asynchronous operation. The user's code would then have the responsibility to check the appropriate ECB to insure it had been posted prior to using the data that IDMS returns. The benefits from this mode of operation would be to allow the user's machine to overlap processing with the service of the DML request. Implementation of the asynchronous access would require checks to prevent the user from requesting a second DML operation while a previous request is outstanding.

With the release of VM/System Product, the control program (CP) has a new command for sending a message to another

virtual machine through the VMCF facility. The command, SMSG, operates as a console function on the source machine (which, for CIAM protocol, would be the application machines running CIAMUSER). The sink machine (which, for CIAM protocol, would be the backend database virtual machine running CIAMDBMS) receives a SENDX type message queued for VMCF service. Currently CIAMDBMS rejects all messages that are not SEND/RECV VMCF protocol. The ability to accept and process SMSG commands would be a most useful extension.

The design of the SMSG support would require authorization checking to prevent unauthorized usage. Note especially that IEAVMCF (and thus also CDBSVMCF) does not currently support SMSG and thus would require modification also.

Figure five illustrates a prototype of the SMSG command format, as issued by the source machine.

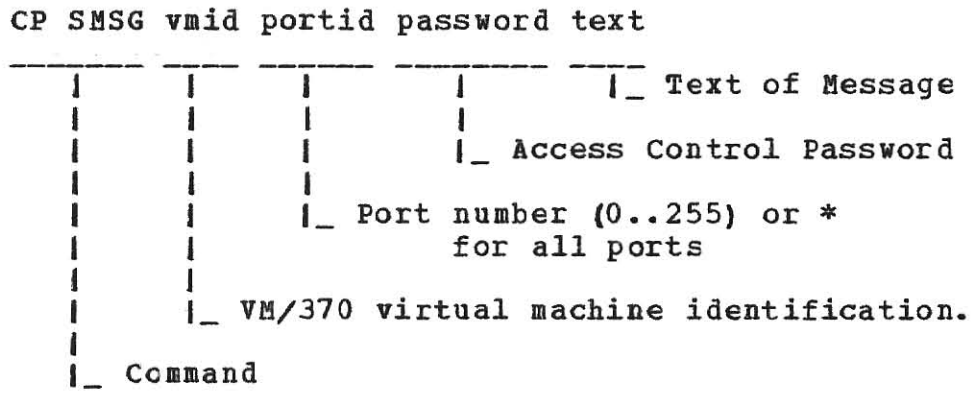


Figure 5: CP SMSG/CIAM Command Format

The VMID and PORTID fields communicate to CDBSVMCF, the sink for which the message is intended. PASSWORD controls acceptance of the message on the specified PORT. If the first three characters of the message text are "CP " the text would be passed to the control program for execution.

The PORTID, by CDBSVMCF conventions, is an integer in the range of 0 to 255. A PORTID of "*" would be used to communicate the SMSG message text to all active ports on the backend virtual machine.

5.3 CIAM SOURCE

The source programs for CIAM are stored in the Source Code Control (SCC) system of the Kansas State University Academic Computing Center, User Services Divison. The SCC project identifier is "BDHCIAM". Computer readable source for CIAM may be obtained by contacting the Manager of User Services.

The source and documentation for IEAVMCF is available by contacting the Kansas State University Academic Computing Center, Systems Division. IEAVMCF is also distributed by the VM user's group "SHARE", on the program library tape, file "M1097V00".

The initial implementation of CIAM at Kansas State University requires system wide access to CIAMUSER (the user interface), which exists on the system disk "Z" in the text library USLIB1. Furthermore, the database interface,

CIAMDBMS, as well as the CIAM protocols must have system wide access, so they exist on the system disk "Z" as well.

5.4 UPDATE FORMAT

CIAMUSER and CIAMDBMS are written in IBM System 370 assembler language. The CIAM macro library exists as a CMS file "CIAM MACLIB".

All changes made to CIAM software should be done using the VM/370 source update procedures [7,8]. (The CIAM control file is CIAM CNTRL).

There are many advantages to using this update technique rather than directly changing the source by EDITing [8], so it should be continued if at all possible. The use of this procedure not only provides a detailed log of all modifications automatically, but allows modifications to be easily exchanged between different installations which run CIAM.

Note the system product editor XEDIT [8] can be used for source maintenance with update functions using the CTL option to force updates. Re-assembly of modules that are updated using the aforementioned techniques would be via the "vmf" command, for example:

```
vmf CIAMDBMS ( CTL CIAM )
```

5.5 SUMMARY OF RESULTS

The Concurrent IDMS Access Method for VM/370 has been completely implemented. Due to the lack of the Central Version of IDMS in CMS, only the communication aspects of CIAM could be completely tested. The concurrency aspects of the backend database virtual machine and its interface to the Central Version could not be, are were not completely tested. It is this author's sincere opinion however, that the design of CIAMDBMS does in fact allow for concurrency of operation.

The major disadvantage of CIAM is the overhead time required to form a message packet to be sent to the backend virtual machine. This overhead is common in message buffer type systems, which CIAM closely resembles. This overhead can be reduced by chaining together multiple DML requests to be serviced by one call to the backend database virtual machine. Release 5.7 of IDMS, according to discussions with Cullinane, does allow multiple record retrieval, thus the chaining together of multiple DML requests should be possible.

Overall, CIAM is a strong system built with ease of maintenance and modification in mind.

REFERENCES

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4. International Business Machines, OS PL/I Optimizing Compiler: CMS User's Guide, Form number: SC33-0037-3

5. International Business Machines, OS PL/I Optimizing Compiler Execution Logic, Form number SC33-0037-3

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7. International Business Machines, VM/370 Planning and System Generation, Form number: C20-1801

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9. International Business Machines, IBM Systems Journal "Virtual Machine Facility/370", Volume Eighteen, Number One, 1979

10. Cullinane Database, Inc., Features Guide, Cullinane Database Wellesley, Mass., December 1978

11. Cullinane Database, Inc., Database Design and Definition Guide, Cullinane Database Wellesley, Mass., September 1979

12. Cullinane Database, Inc., Utilities, Wellesley, Mass., October 1979

13. Cullinane Database, Inc., Programmer's Reference Guide - PL/I, Wellesley, Mass., August 1980

14. Harold, Bryan D., KSU Computing Center IDMS Exec Guide, Academic Computing Center, Kansas State University, May 18, 1981.

15. Young, Robert A., IEAVMCF, Academic Computing Center Kansas State University, 1977

16. International Business Machines, CICS/VS ISAM - DL/I Bridge Form number: GB21-2549

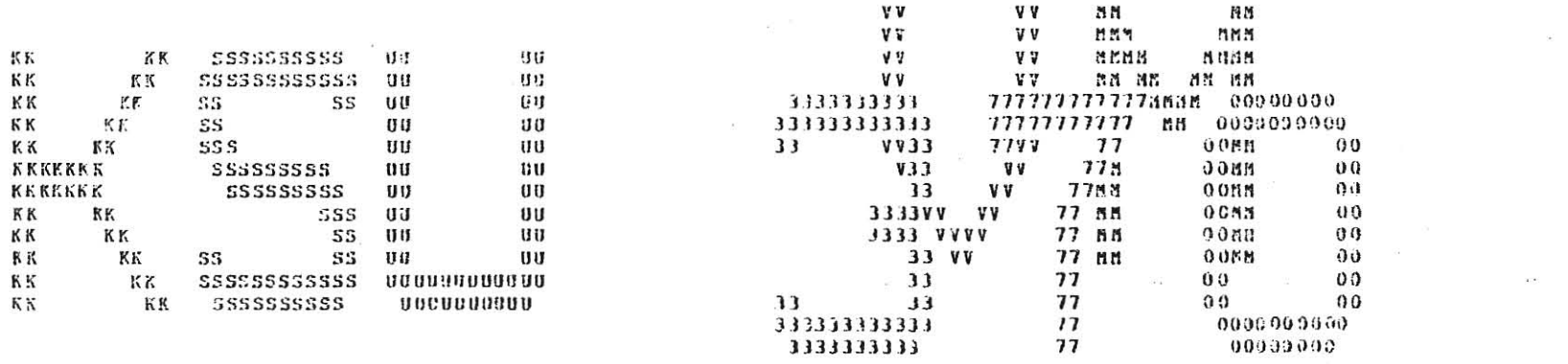
17. International Business Machines, IMS/VS Data Communication Feature Form number: GH20-1260

18. Insac Software Incorporated, SHADOW II Introduction Form number: AS0109

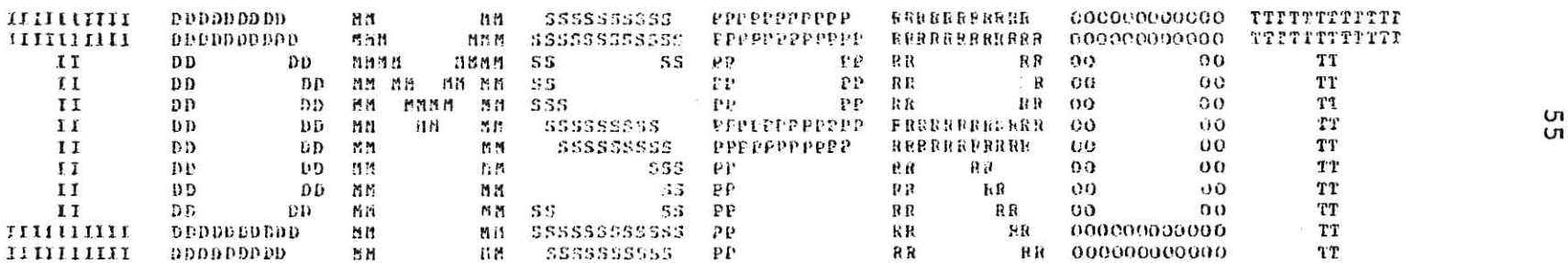
19. Insac Software Incorporated, SHADOW II OS System Programmer's Guide Form number: AS1103

Appendix A

CIAM IDMS PROTOCOLS


KK KK SSSSSSSSS UU UU
KK KK SSSSSSSSSSS UU UU
KK KK SS SS UU UU
KK KK SS UU UU
KK KK SSS UU UU
KKKKKKK SSSSSSSS UU UU
KKKKKKK SSSSSSSS UU UU
KK KK SSS UU UU
KK KK SS UU UU
KK KK SS SS UU UU
KK KK SSSSSSSSSSS UUUUUUUUUUU
KK KK SSSSSSSSS UUUUUUUUU
VV VV MM MM
VV VV MMM MMM
VV VV MMMM MMMM
VV VV MM MM MM MM
3333333333 77777777777MMMM 00000000
3333333333333 77777777777 MM 00000000000
33 VV33 77VV 77 00MM 00
V33 VV 77M 00MM 00
33 VV 77MM 00MM 00
3333VV VV 77 MM 00MM 00
3333 VVVV 77 MM 00MM 00
33 VV 77 MM 00MM 00
33 77 00 00
33 33 77 00 00
333333333333 77 0000000000
3333333333 77 00000000


CCCCCCCCCC IIIIIIIIII AAAAAAAAAA MM MM
CCCCCCCCCCCC IIIIIIIIII AAAAAAAAAAAA MMM MMM
CC CC II AA AA MMMM MMMM
CC II AA AA MM MM MM MM
CC II AA AA MM MMMM MM
CC II AAAAAAAAAAAA MM MM MM
CC II AAAAAAAAAAAA MM MM
CC II AA AA MM MM
CC II AA AA MM MM
CC CC II AA AA MM MM
CCCCCCCCCCCC IIIIIIIIII AA AA MM MM
CCCCCCCCCC IIIIIIIIII AA AA MM MM


IIIIIIIIII DDDDDDDDD MM MM SSSSSSSSSS PPPPPPPPPP RRRRRRRRRRR OOOOOOOOOO TTTTTTTTTTT
IIIIIIIIII DDDDDDDDDD MMM MMM SSSSSSSSSSS PPPPPPPPPPP RRRRRRRRRRRR OOOOOOOOOO TTTTTTTTTTT
II DD DD MMMM MMMM SS SS PP PP RR RR OO OO TT
II DD DD MM MM MM MM SS PP PP RR RR OO OO TT
II DD DD MM MMMM MM SSS PP PP RR RR OO OO TT
II DD DD MM MM MM SSSSSSSSS PPPPPPPPPPP RRRRRRRRRRR OO OO TT
II DD DD MM MM SSSSSSSSS PPPPPPPPPPP RRRRRRRRRRR OO OO TT
II DD DD MM MM SSS PP RR RR OO OO TT
II DD DD MM MM SS PP RR RR OO OO TT
II DD DD MM MM SS SS PP RR RR OO OO TT
IIIIIIIIII DDDDDDDDD MM MM SSSSSSSSSSS PP RR RR OOOOOOOOOO TT
IIIIIIIIII DDDDDDDDD MM MM SSSSSSSSS PP RR RR OOOOOOOOOO TT

```
SET GLOBALS DEFAULT IS ON.
ADD MODULE NAME CIAM VERSION 1 LANGUAGE IS PL/I MODE IS CIAM
MODULE SOURCE
                %SKIP(1);
 DO;
   CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=@DMLSEQ;
   CIAM_CB.SUBSCHEMA_CTRL.RECORD_OCCUR=@OCCUR;
   CIAM_CB.ID.SCHEMA= '@SSNAME';
   CIAM_CB.ID.RECORD= '@REC';
   CIAM_CB.ID.SET    = '@SET';
   CIAM_CB.ID.AREA   = '@AREA';
   CALL CIAMDML (CIAM_CB,IDBMSCOM(@FUNC1)
       ,@SSCTRL
       ,CIAM_CB.ID.SCHEMA /*@SSNAME*/
       ,CIAM_CB.ID.RECORD /*@REC*/
       ,CIAM_CB.ID.SET    /*@SET*/
       ,CIAM_CB.ID.AREA   /*@AREA*/
       ,@DATANAME
       ,@RECBUF
       ,@OCCUR2
       ,IDBMSCOM(@FUNC2)
       ,IDBMSCOM(@KEEP)
   ); END;
    IF CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS='@STATUS'
MSEND.
ADD MODULE NAME CIAM_STATUS VERSION 1 LANGUAGE IS PL/I
MODULE SOURCE
  % SKIP ( 2 );
IDMS_STATUS:  PROC;
  % SKIP ( 1 );
/*************************************************************/
/* THE IDMS_STATUS PROCEDURE IS CALLED BY THE USER AFTER     */
/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN    */
/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.   */
/* IT DETECTS A NON-ZERO ERROR_STATUS AND TERMINATES THE     */
/* PROGRAM ACCORDINGLY.                                      */
/*************************************************************/
  % SKIP ( 1 );
IF   CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS ^= '0000' THEN
        DO;
           DISPLAY('PROGRAM NAME -------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.PROGRAM);
           DISPLAY('USER ID ------------- ' ||
             CIAM_CB.COMMUNCIATIONS_PATH.USER_ID);
           DISPLAY('USER PORT ----------- ' ||
             BINARY(CIAM_CB.COMMUNCIATIONS_PATH.USER_PORT,15));
           DISPLAY('DBMS ID ------------- ' ||
             CIAM_CB.COMMUNCIATIONS_PATH.DBMS_ID);
           DISPLAY('DBMS PORT ----------- ' ||
             BINARY(CIAM_CB.COMMUNCIATIONS_PATH.DBMS_PORT,15));
           DISPLAY('MESSAGE ID ---------- ' ||
             CIAM_CB.COMMUNCIATIONS_PATH.MESSAGE_ID);
           DISPLAY('DBKEY --------------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.DBKEY);
           DISPLAY('ERROR STATUS -------- ' ||
```

```
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS);
          DISPLAY('ERROR RECORD -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_RECORD);
          DISPLAY('ERROR SET ----------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_SET);
          DISPLAY('ERROR AREA ---------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_AREA);
          DISPLAY('LAST GOOD RECORD ---- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.RECORD_NAME);
          DISPLAY('LAST GOOD AREA ------ ' ||
            CIAM_CB.SUBSCHEMA_CTRL.AREA_NAME);
          DISPLAY('DML SEQUENCE -------- ' ||
            BINARY(CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE,15));
          ROLLBACK;
          STOP;
        END /*ERROR_STATUS ¬= 0 */;
END IDMS_STATUS;
  % SKIP ( 2 );
MSEND.
ADD MODULE CIAMERR_ONCOND VERSION 1 LANGUAGE IS PL/I
MODULE SOURCE
  % SKIP ( 2 );
DCL IDMSERR CONDITION EXTERNAL;
ON CONDITION(IDMSERR) SNAP BEGIN;
  % SKIP ( 1 );
/*****************************************************************/
/* THE IDMSERR ON CONDITION IS SIGNALED BY THE USER AFTER        */
/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN        */
/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.       */
/* IT DETECTS A NON-ZERO ERROR_STATUS AND TERMINATES THE         */
/* PROGRAM ACCORDINGLY.                                          */
/*****************************************************************/
  % SKIP ( 1 );
IF   CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS ¬= '0000' THEN
       DO;
          DISPLAY('PROGRAM NAME -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.PROGRAM);
          DISPLAY('USER ID ------------- ' ||
            CIAM_CB.COMMUNCIATIONS_PATH.USER_ID);
          DISPLAY('USER PORT ----------- ' ||
            BINARY(CIAM_CB.COMMUNCIATIONS_PATH.USER_PORT,15));
          DISPLAY('DBMS ID ------------- ' ||
            CIAM_CB.COMMUNCIATIONS_PATH.DBMS_ID);
          DISPLAY('DBMS PORT ----------- ' ||
            BINARY(CIAM_CB.COMMUNCIATIONS_PATH.DBMS_PORT,15));
          DISPLAY('MESSAGE ID ---------- ' ||
            CIAM_CB.COMMUNCIATIONS_PATH.MESSAGE_ID);
          DISPLAY('DBKEY --------------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.DBKEY);
          DISPLAY('ERROR STATUS -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS);
          DISPLAY('ERROR RECORD -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_RECORD);
          DISPLAY('ERROR SET ----------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_SET);
```

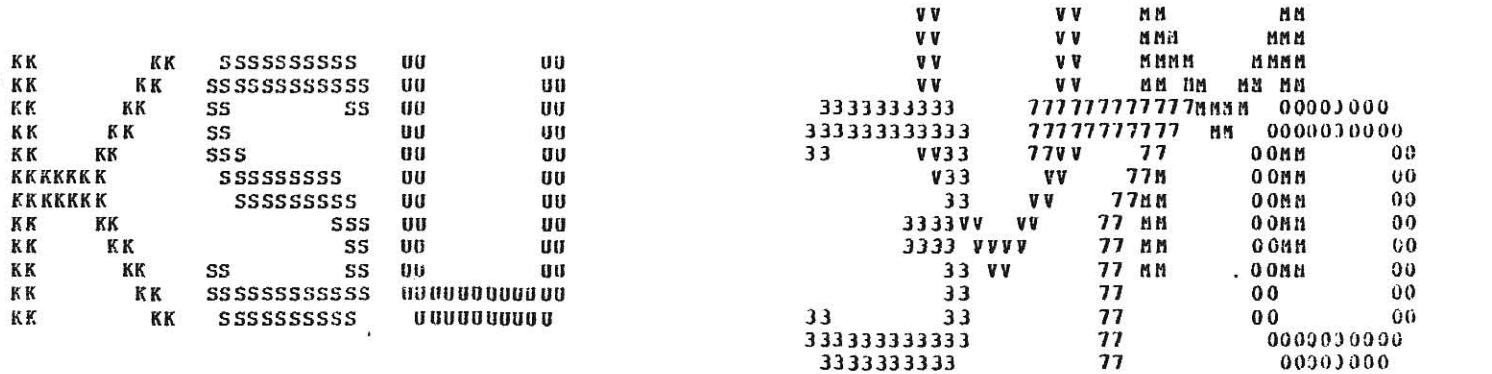
```
            DISPLAY('ERROR AREA ---------- ' ||
              CIAM_CB.SUBSCHEMA_CTRL.ERROR_AREA);
            DISPLAY('LAST GOOD RECORD ---- ' ||
              CIAM_CB.SUBSCHEMA_CTRL.RECORD_NAME);
            DISPLAY('LAST GOOD AREA ------ ' ||
              CIAM_CB.SUBSCHEMA_CTRL.AREA_NAME);
            DISPLAY('DML SEQUENCE -------- ' ||
              BINARY(CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE,15));
            ROLLBACK;
            STOP;
          END /*ERROR_STATUS ¬= 0 */;
      END /*IDMSERR ONCOND*/;
        % SKIP ( 2 );
      MSEND.
      ADD MODULE NAME IDMS_ENTRY VERSION 1 LANGUAGE IS PL/I
          MODE IS CIAM
      MODULE SOURCE
      DCL CIAMDML ENTRY OPTIONS (ASM,INTER);
      MSEND.
      ADD MODULE NAME CIAM_MAIN VERSION 1 LANGUAGE IS PL/I
          MODE IS CIAM
      MODULE SOURCE
        % SKIP ( 2 );
      DCL CIAMPTR POINTER EXTERNAL,
          1 CIAM_CB BASED(CIAMPTR),
              2 CIAM_CTRL,
                 3 CB__LENGTH          FIXED BINARY(31)
                                       INIT(STORAGE(CIAM_CB)),
                 3 DML_TIMEOUT         FIXED BIN(31)
                                       INIT( 60 /*SECONDS*/ ),
              2 ARG_INFORMATION,
                 3 #ARGS               FIXED BINARY(31),
                 3 ARGS                (12) POINTER,
              2 ID,
                 3 SCHEMA              CHAR(8),
                 3 RECORD              CHAR(16),
                 3 SET                 CHAR(16),
                 3 AREA                CHAR(16),
              2  BR_10                 CHAR(2)
                                       INIT ('  '),
              2  COMMUNCIATIONS_PATH,
                 3 USER_ID             CHAR(8),
                 3 USER_PORT           BIT(8),
                 3 DBMS_ID             CHAR(8)
                                       INIT ('VM6L8'),
                 3 DBMS_PORT           BIT(8),
                 3 MESSAGE_ID          FIXED BINARY(15),
              2  DB_STATISTICS,
                 3 DATE_TODAY          CHAR (8),          /* MM/DD/YY */
                 3 TIME_TODAY          CHAR (8),          /* HH:MM:SS */
                 3 PAGES_READ          FIXED BINARY(31),
                 3 PAGES_WRITTEN       FIXED BINARY(31),
                 3 PAGES_REQUESTED     FIXED BINARY(31),
                 3 CALC_TARGET         FIXED BINARY(31),
                 3 CALC_OVERFLOW       FIXED BINARY(31),
```

```
            3 VIA_TARGET          FIXED BINARY(31),
            3 VIA_OVERFLOW        FIXED BINARY(31),
            3 LINES_REQUESTED     FIXED BINARY(31),
            3 RECS_CURRENT        FIXED BINARY(31),
            3 CALLS_TO_IDMS       FIXED BINARY(31),
            3 FRAGMENTS_STORED    FIXED BINARY(31),
            3 RECS_RELOCATED      FIXED BINARY(31),
            3 LOCKS_REQUESTED     FIXED BINARY(31),
            3 SEL_LOCKS_HELD      FIXED BINARY(31),
            3 UPD_LOCKS_HELD      FIXED BINARY(31),
            3 FILLER__DB_STATISTICS CHAR(24),
        2 INCLUDE IDMS (SUBSCHEMA_DESCRIPTION);
  % SKIP ( 2 );
ALLOCATE CIAM_CB;
  % SKIP ( 1 );
MSEND.
ADD MODULE NAME CIAM_CB VERSION 1 LANGUAGE IS PL/I
    MODE IS CIAM
MODULE SOURCE
  % SKIP ( 2 );
DCL CIAMPTR POINTER EXTERNAL,
    1 CIAM_CB BASED(CIAMPTR),
        2 CIAM_CTRL,
            3 CB__LENGTH          FIXED BINARY(31),
            3 DML_TIMEOUT         FIXED BIN(31),
        2 ARG_INFORMATION,
            3 #ARGS               FIXED BINARY(31),
            3 ARGS                (12) POINTER,
        2 ID,
            3 SCHEMA              CHAR(8),
            3 RECORD              CHAR(16),
            3 SET                 CHAR(16),
            3 AREA                CHAR(16),
        2   BR_10                 CHAR(2),
        2   COMMUNCIATIONS_PATH,
            3 USER_ID             CHAR(8),
            3 USER_PORT           BIT(8),
            3 DBMS_ID             CHAR(8),
            3 DBMS_PORT           BIT(8),
            3 MESSAGE_ID          FIXED BINARY(15),
        2   DB_STATISTICS,
            3 DATE_TODAY          CHAR (8),          /* MM/DD/YY */
            3 TIME_TODAY          CHAR (8),          /* HH:MM:SS */
            3 PAGES_READ          FIXED BINARY(31),
            3 PAGES_WRITTEN       FIXED BINARY(31),
            3 PAGES_REQUESTED     FIXED BINARY(31),
            3 CALC_TARGET         FIXED BINARY(31),
            3 CALC_OVERFLOW       FIXED BINARY(31),
            3 VIA_TARGET          FIXED BINARY(31),
            3 VIA_OVERFLOW        FIXED BINARY(31),
            3 LINES_REQUESTED     FIXED BINARY(31),
            3 RECS_CURRENT        FIXED BINARY(31),
            3 CALLS_TO_IDMS       FIXED BINARY(31),
            3 FRAGMENTS_STORED    FIXED BINARY(31),
            3 RECS_RELOCATED      FIXED BINARY(31),
```

```
            3 LOCKS_REQUESTED    FIXED BINARY(31),
            3 SEL_LOCKS_HELD     FIXED BINARY(31),
            3 UPD_LOCKS_HELD     FIXED BINARY(31),
            3 FILLER__DB_STATISTICS CHAR(24),
          2 INCLUDE IDMS (SUBSCHEMA_DESCRIPTION);
  % SKIP ( 2 );
MSEND.
SET GLOBALS DEFAULT IS OFF.
```

Appendix B

CIAMUSER - USER INTERFACE


KK KK SSSSSSSSS UU UU
KK KK SSSSSSSSSSS UU UU
KK KK SS SS UU UU
KK KK SS UU UU
KK KK SSS UU UU
KKKKKKK SSSSSSSSS UU UU
KKKKKKK SSSSSSSSS UU UU
KK KK SSS UU UU
KK KK SS UU UU
KK KK SS SS UU UU
KK KK SSSSSSSSSSS UUUUUUUUUUU
KK KK SSSSSSSSSS UUUUUUUUUU
VV VV MM MM
VV VV MMM MMM
VV VV MMMM MMMM
VV VV MM MM MM MM
3333333333 777777777777MMMM 00000000
333333333333 77777777777 MM 0000000000
33 VV33 77VV 77 00MM 00
V33 VV 77M 00MM 00
33 VV 77MM 00MM 00
3333VV VV 77 MM 00MM 00
3333 VVVV 77 MM 00MM 00
33 VV 77 MM 00MM 00
33 77 00 00
33 33 77 00 00
333333333333 77 0000000000
3333333333 77 00000000
AAAAAAAAAA DDDDDDDDD DDDDDDDDD IIIIIIIIII RRRRRRRRRR
AAAAAAAAAAAA DDDDDDDDDD DDDDDDDDDD IIIIIIIIII RRRRRRRRRRRR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AAAAAAAAAAAA DD DD DD DD II RRRRRRRRRR
AAAAAAAAAAAA DD DD DD DD II RRRRRRRRRR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AA AA DDDDDDDDDD DDDDDDDDDD IIIIIIIIII RR RR
AA AA DDDDDDDDD DDDDDDDDD IIIIIIIIII RR RR
DDDDDDDDD MM MM LL PPPPPPPPPP LL SSSSSSSSS TTTTTTTTTTT
DDDDDDDDDD MMM MMM LL PPPPPPPPPPP LL SSSSSSSSSSS TTTTTTTTTTT
DD DD MMMM MMMM LL PP PP LL SS SS TT
DD DD MM MM MM MM LL PP PP LL SS TT
DD DD MM MMMM MM LL PP PP LL SSS TT
DD DD MM MM MM LL PPPPPPPPPPP LL SSSSSSSSS TT
DD DD MM MM LL PPPPPPPPPPP LL SSSSSSSSS TT
DD DD MM MM LL PP LL SSS TT
DD DD MM MM LL PP LL SS TT
DD DD MM MM LL PP LL SS SS TT
DDDDDDDDDD MM MM LLLLLLLLLLLL PP LLLLLLLLLLLL SSSSSSSSSSS TT
DDDDDDDDD MM MM LLLLLLLLLLLL PP LLLLLLLLLLLL SSSSSSSSSS TT

```
OPTIONS SPECIFIED

NOSTMT ESD LC(60) OP F(I) NNUM MACRO NIS NAME('ADDIR') LIST;


OPTIONS USED

AGGREGATE       NOCOUNT         ATTRIBUTES(FULL)
ESD             NODECK          CHARSET(60,EBCDIC)
LIST            NOFLOW          NOCOMPILE(S)
LMESSAGE        NOGONUMBER      FLAG(I)
MACRO           NOGOSTMT        LINECOUNT(60)
MAP             NOIMPRECISE     MARGINI('|')
NEST            NOINCLUDE       MARGINS(2,72,0)
OBJECT          NOINTERRUPT     NAME('ADDIR')
OFFSET          NOINSOURCE      OPTIMIZE(TIME)
OPTIONS         NOMDECK         SEQUENCE(73,80)
SOURCE          NONUMBER        SIZE(707904)
STMT                            NOSYNTAX(S)
STORAGE                         XREF(FULL)
                                TERMINAL(NOAGGREGATE,
                                         NOATTRIBUTES,
                                         NOESD,
                                         NOINSOURCE,
                                         NOLIST,
                                         NOMAP,
                                         NOOFFSET,
                                         NOOPTIONS,
                                         NOSOURCE,
                                         NOSTORAGE,
                                         NOXREF)

NO PREPROCESSOR DIAGNOSTIC MESSAGES PRODUCED
```

SOURCE LISTING

```
STMT LEV NT                                                                  R

                |/*ADDIR:  ADD THE DIRECTOR RECORD TO XYU DB */                |00000010
                |/*SCHEMA_COMMENTS*/                                           |00000020
                |/*NO_ACTIVITY_LOG*/                                           |00000030
  1       0     |ADDIR:                                                        |00000040
                |  PROC OPTIONS(MAIN) REORDER;                                 |00000050
                |/*DECLARE (CALENDAR SUBSCHEMA, XYUSCHEM SCHEMA, ADDIR PROGRAM) MODE    |00000060
                |(CIAM) DEBUG. */                                              |00000070
                |/*INCLUDE IDMS(IDMS_ENTRY). */                                |00000080
  2   1   0     |  DCL                                                         |00000090
                |     CIAMDML ENTRY OPTIONS (ASM,INTER);                       |00000100
                |/*INCLUDE IDMS(ERROR_CODES). */                               |00000110

                |/*                    IDMS EQUATES                      */    |00000160

                |/*      IDMS_OK             C'0000'                     */    |00000180
                |/*      IDMS_ENDSET         C'0307'                     */    |00000190
                |/*      IDMS_NOREC          C'0326'                     */    |00000200
                |/*      IDMS_TRUE           C'0000'                     */    |00000210
                |/*      IDMS_FALSE          C'1601'                     */    |00000220
                |/*      IDMS_CONNDUPL       C'0705'                     */    |00000230
                |/*      IDMS_MODDUPL        C'0805'                     */    |00000240
                |/*      IDMS_STORDUPL       C'1205'                     */    |00000250

                |/*INCLUDE IDMS(CIAMERR_ONCOND). */                            |00000350

  3   1   0     |  DCL                                                         |00000370
                |     IDMSERR CONDITION EXTERNAL;                              |00000380
  4   1   0     |     ON CONDITION(IDMSERR) SNAP                               |00000390
                |        BEGIN;                                                |00000400

                |/*************************************************************/|00000420
                |/* THE IDMSERR ON CONDITION IS SIGNALED BY THE USER AFTER    */|00000430
                |/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN    */|00000440
                |/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.   */|00000450
                |/* IT DETECTS A NON-ZERO ERROR_STATUS AND TERMINATES THE     */|00000460
                |/* PROGRAM ACCORDINGLY.                                      */|00000470
                |/*************************************************************/|00000480

  5   2   0     |           IF CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS ¬= '0000' THEN|00000500
                |              DO;                                             |00000510
  6   2   1     |                 DISPLAY('PROGRAM NAME -------- ' || CIAM_CB. |00000520
                |                 SUBSCHEMA_CTRL.PROGRAM);                     |00000530
  7   2   1     |                 DISPLAY('USER ID ------------- ' || CIAM_CB. |00000540
                |                 COMMUNCIATIONS_PATH.USER_ID);                |00000550
  8   2   1     |                 DISPLAY('USER PORT ----------- ' ||          |00000560
                |                 BINARY(CIAM_CB.COMMUNCIATIONS_PATH.USER_PORT,15));|00000570
  9   2   1     |                 DISPLAY('DBMS ID ------------- ' || CIAM_CB. |00000580
                |                 COMMUNCIATIONS_PATH.DBMS_ID);                |00000590
 10   2   1     |                 DISPLAY('DBMS PORT ----------- ' ||          |00000600
```

```
STMT LEV NT                                                                    R

                |                  BINARY(CIAM_CB.COMMUNCIATIONS_PATH.DBMS_PORT,15));     |00000610
  11   2   1    |                  DISPLAY('MESSAGE ID ---------- ' || CIAM_CB.           |00000620
                |                  COMMUNCIATIONS_PATH.MESSAGE_ID);                       |00000630
  12   2   1    |                  DISPLAY('DBKEY --------------- ' || CIAM_CB.           |00000640
                |                  SUBSCHEMA_CTRL.DBKEY);                                 |00000650
  13   2   1    |                  DISPLAY('ERROR STATUS -------- ' || CIAM_CB.           |00000660
                |                  SUBSCHEMA_CTRL.ERROR_STATUS);                          |00000670
  14   2   1    |                  DISPLAY('ERROR RECORD -------- ' || CIAM_CB.           |00000680
                |                  SUBSCHEMA_CTRL.ERROR_RECORD);                          |00000690
  15   2   1    |                  DISPLAY('ERROR SET ----------- ' || CIAM_CB.           |00000700
                |                  SUBSCHEMA_CTRL.ERROR_SET);                             |00000710
  16   2   1    |                  DISPLAY('ERROR AREA ---------- ' || CIAM_CB.           |00000720
                |                  SUBSCHEMA_CTRL.ERROR_AREA);                            |00000730
  17   2   1    |                  DISPLAY('LAST GOOD RECORD ---- ' || CIAM_CB.           |00000740
                |                  SUBSCHEMA_CTRL.RECORD_NAME);                           |00000750
  18   2   1    |                  DISPLAY('LAST GOOD AREA ------ ' || CIAM_CB.           |00000760
                |                  SUBSCHEMA_CTRL.AREA_NAME);                             |00000770
  19   2   1    |                  DISPLAY('DML SEQUENCE -------- ' ||                    |00000780
                |                  BINARY(CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE,15));       |00000790
                |/* ROLLBACK. */                                                         |00000800
  20   2   1    |                  DO;                                                    |00000810
  21   2   2    |                     CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0001;           |00000820
  22   2   2    |                     CALL CIAMDML (CIAM_CB,IDBMSCOM(67) );               |00000830
  23   2   2    |                  END;                                                   |00000840

  24   2   1    |                  STOP;                                                  |00000860
  25   2   1    |               END /*ERROR_STATUS ¬= 0 */;                               |00000870
  26   2   0    |         END /*IDMSERR ONCOND*/;                                         |00000880

                |/*INCLUDE IDMS(CIAM_MAIN). */                                          |00000900

  27   1   0    |  DCL                                                                    |00000920
                |     CIAMPTR POINTER EXTERNAL,                                           |00000930
                |     1 CIAM_CB BASED(CIAMPTR),                                           |00000940
                |        2 CIAM_CTRL,                                                     |00000950
                |           3 CB__LENGTH FIXED BINARY(31) INITIAL(STORAGE(CIAM_CB)),      |00000960
                |           3 DML_TIMEOUT FIXED BINARY(31) INITIAL( 60 /*SECONDS*/),     |00000970
                |        2 ARG_INFORMATION,                                               |00000980
                |           3 #ARGS FIXED BINARY(31),                                     |00000990
                |           3 ARGS (12) POINTER,                                          |00001000
                |        2 ID,                                                            |00001010
                |           3 SUB_SCHEMA CHARACTER(8),                                    |00001020
                |           3 RECORD CHARACTER(16),                                       |00001030
                |           3 SET CHARACTER(16),                                          |00001040
                |           3 AREA CHARACTER(16),                                         |00001050
                |        2 BR_10 CHARACTER(2) INITIAL ('  '),                             |00001060
                |        2 COMMUNCIATIONS_PATH,                                           |00001070
                |           3 USER_ID CHARACTER(8),                                       |00001080
                |           3 USER_PORT BIT(8),                                           |00001090
                |           3 DBMS_ID CHARACTER(8) INITIAL ('VM6L8'),                     |00001100
                |           3 DBMS_PORT BIT(8),                                           |00001110
                |           3 MESSAGE_ID FIXED BINARY(15),                                |00001120
```

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                |        2 DB_STATISTICS,                                      |00001130
                |          3 DATE_TODAY CHARACTER(8), /* MM/DD/YY */           |00001140
                |          3 TIME_TODAY CHARACTER(8), /* HH:MM:SS */           |00001150
                |          3 PAGES_READ FIXED BINARY(31),                      |00001160
                |          3 PAGES_WRITTEN FIXED BINARY(31),                   |00001170
                |          3 PAGES_REQUESTED FIXED BINARY(31),                 |00001180
                |          3 CALC_TARGET FIXED BINARY(31),                     |00001190
                |          3 CALC_OVERFLOW FIXED BINARY(31),                   |00001200
                |          3 VIA_TARGET FIXED BINARY(31),                      |00001210
                |          3 VIA_OVERFLOW FIXED BINARY(31),                    |00001220
                |          3 LINES_REQUESTED FIXED BINARY(31),                 |00001230
                |          3 RECS_CURRENT FIXED BINARY(31),                    |00001240
                |          3 CALLS_TO_IDMS FIXED BINARY(31),                   |00001250
                |          3 FRAGMENTS_STORED FIXED BINARY(31),                |00001260
                |          3 RECS_RELOCATED FIXED BINARY(31),                  |00001270
                |          3 LOCKS_REQUESTED FIXED BINARY(31),                 |00001280
                |          3 SEL_LOCKS_HELD FIXED BINARY(31),                  |00001290
                |          3 UPD_LOCKS_HELD FIXED BINARY(31),                  |00001300
                |          3 RUN_UNIT_ID FIXED BINARY(31),                     |00001310
                |          3 TASK_ID FIXED BINARY(31),                         |00001320
                |          3 LOCAL_ID CHARACTER(8),                            |00001330
                |          3 REMOTE_ID CHARACTER(8),                           |00001340
                |/* 2 INCLUDE IDMS (SUBSCHEMA_DESCRIPTION). */                |00001350
                |        2 SUBSCHEMA_CTRL,                                     |00001360
                |          4 PROGRAM CHARACTER (8) INITIAL (' '),              |00001370
                |          4 ERROR_STATUS CHARACTER (4) INITIAL ('1400'),      |00001380
                |          4 DBKEY FIXED BINARY (31),                         |00001390
                |          4 RECORD_NAME CHARACTER (16) INITIAL (' '),         |00001400
                |          4 AREA_NAME CHARACTER (16) INITIAL (' '),           |00001410
                |          4 ERROR_SET CHARACTER (16) INITIAL (' '),           |00001420
                |          4 ERROR_RECORD CHARACTER (16) INITIAL (' '),        |00001430
                |          4 ERROR_AREA CHARACTER (16) INITIAL (' '),          |00001440
                |          4 IDBMSCOM_AREA,                                    |00001450
                |            6 IDBMSCOM (100) CHARACTER (1),                   |00001460
                |          4 DIRECT_DBKEY FIXED BINARY (31),                   |00001470
                |          4 DATABASE_STATUS,                                  |00001480
                |            6 DBSTATMENT_CODE CHARACTER (2),                  |00001490
                |            6 DBSTATUS_CODE CHARACTER (5),                    |00001500
                |          4 FILLER0001 CHARACTER (1),                         |00001510
                |          4 RECORD_OCCUR FIXED BINARY (31),                   |00001520
                |          4 DML_SEQUENCE FIXED BINARY (31),                   |00001530
                |        2 DIRECTOR,                                           |00001540
                |          4 DIRECTORS_NAME CHARACTER (24),                    |00001550
                |        2 EVENT,                                              |00001560
                |          4 EVENT_NAME CHARACTER (26),                        |00001570
                |          4 EVENT_DATE PICTURE '(6)9',                        |00001580
                |          4 EVENT_LOCATION,                                   |00001590
                |            6 FACILITY_NAME CHARACTER (24),                   |00001600
                |            6 FACILITY_TOWN CHARACTER (24);                   |00001610

28   1  0    |    ALLOCATE CIAM_CB;                                           |00001630

29   1  0    | DECLARE                                                        |00001650
```

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STMT LEV NT                                                                  R

                |     (STORAGE,                                                |00001660
                |     BINARY) BUILTIN;                                         |00001670
                |/* ID: HEX COPY D1 UPDATED: 08/30/81 19:50:17          */     |00001000

 30   1   0     |DCL HEX      GENERIC (HEX15  WHEN(FIXED BIN(15)),             |00003000
                |                      HEXPTR WHEN(POINTER),                   |00004000
                |                      HEXPTR WHEN(ENTRY),                     |00005000
                |                      HEXPTR WHEN(LABEL),                     |00006000
                |                      HEX31  WHEN(FIXED BIN(31)) ),           |00007000
                |    HEX15   ENTRY   (FIXED BIN(15)) RETURNS (CHAR(4)),        |00008000
                |    HEXPTR  ENTRY   /* POINTER */   RETURNS (CHAR(8)),        |00009000
                |    HEX31   ENTRY   (FIXED BIN(31)) RETURNS (CHAR(8));        |00010000

 31   1   0     |     DISPLAY(HEX(CIAMPTR) ||' '|| HEX(STORAGE(CIAM_CB)));     |00001690
 32   1   0     |  DCL                                                         |00001700
                |     AUDIT FILE STREAM OUTPUT PRINT;                          |00001710
 33   1   0     |  DCL                                                         |00001720
                |     SYSIN FILE STREAM INPUT;                                 |00001730
 34   1   0     |  DCL                                                         |00001740
                |     SYSPRINT FILE STREAM OUTPUT;                             |00001750
 35   1   0     |     ON ENDFILE(SYSIN)                                        |00001760
                |        BEGIN;                                                |00001770
 36   2   0     |           PUT FILE(AUDIT) SKIP EDIT (                        |00001780
                |           '*** ERROR *** EOF OCCURED ON SYSIN',              |00001790
                |           ' NO DIRECTORS''S NAME WAS FOUND.',                |00001800
                |           ' ABORTING RUN, RERUN WITH DIRECTOR''S ',          |00001810
                |           ' NAME CORRECTLY ENTERED.') (A,A,SKIP(1),A,A);     |00001820
                |/*CLEAN UP THE DATABASE HANDLER*/                             |00001830
                |/* ROLLBACK. */                                              |00001840
 37   2   0     |           DO;                                                |00001850
 38   2   1     |              CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0002;       |00001860
 39   2   1     |              CALL CIAMDML (CIAM_CB,IDBMSCOM(67) );           |00001870
 40   2   1     |           END;                                               |00001880

 41   2   0     |           STOP;                        /*SHUT THINGS DOWN.*/ |00001900
 42   2   0     |        END;                                                  |00001910
                |/*BIND RUN-UNIT TO IDMS*/                                     |00001920
                |/*INCLUDE IDMS(SUBSCHEMA_BINDS). */                           |00001930
 43   1   0     |     SUBSCHEMA_CTRL.PROGRAM = 'ADDIR    ';                    |00001940
                |/*BIND RUN_UNIT. */                                           |00001950
 44   1   0     |     DO;                                                      |00001960
 45   1   1     |        CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0003;             |00001970
 46   1   1     |        CIAM_CB.ID.SUB_SCHEMA= 'CALENDAR';                    |00001980
 47   1   1     |        CALL CIAMDML (                                        |00001990
                |        CIAM_CB,IDBMSCOM(59) ,SUBSCHEMA_CTRL ,                |00002000
                |        CIAM_CB.ID.SUB_SCHEMA /*CALENDAR*/);                  |00002010
 48   1   1     |     END;                                                     |00002020

                |/*BIND RECORD(DIRECTOR). */                                   |00002040
 49   1   0     |     DO;                                                      |00002050
 50   1   1     |        CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0004;             |00002060
 51   1   1     |        CIAM_CB.ID.RECORD= 'DIRECTOR        ';                |00002070
 52   1   1     |        CALL CIAMDML (                                        |00002080
                |        CIAM_CB,IDBMSCOM(48) ,CIAM_CB.ID.RECORD /*DIRECTOR */, |00002090
```

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STMT LEV NT                                                                    R

                |        DIRECTOR );                                           |00002100
 53   1  1      |     END;                                                     |00002110

                |/*BIND RECORD(EVENT). */                                      |00002130
 54   1  0      |     DO;                                                      |00002140
 55   1  1      |        CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0005;             |00002150
 56   1  1      |        CIAM_CB.ID.RECORD= 'EVENT          ';                 |00002160
 57   1  1      |        CALL CIAMDML (                                        |00002170
                |        CIAM_CB,IDBMSCOM(48) ,CIAM_CB.ID.RECORD /*EVENT     */,|00002180
                |        EVENT );                                              |00002190
 58   1  1      |     END;                                                     |00002200

 59   1  0      |     IF ERROR_STATUS ¬= '0000' THEN                           |00002220  1
                |        SIGNAL COND(IDMSERR);                                 |00002230
                |/*HOUSEKEEPING*/                                              |00002240
                |/*READY AREA (MAIN) EXCLUSIVE UPDATE. */                      |00002250
 60   1  0      |     DO;                                                      |00002260
 61   1  1      |        CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0006;             |00002270
 62   1  1      |        CIAM_CB.ID.AREA = 'MAIN            ';                 |00002280
 63   1  1      |        CALL CIAMDML (                                        |00002290
                |        CIAM_CB,IDBMSCOM(41) ,CIAM_CB.ID.AREA /*MAIN        */);|00002300
 64   1  1      |     END;                                                     |00002310

 65   1  0      |     IF ERROR_STATUS ¬= '0000' THEN                           |00002330  1
                |        SIGNAL COND(IDMSERR);                                 |00002340
                |/*READ IN THE DIRECTORS'S NAME*/                              |00002350
 66   1  0      |     GET LIST(DIRECTORS_NAME);                                |00002360
                |/*CREATE THE DIRECTOR, LET IDMS FIGURE WHERE TO PLACE HIM*/   |00002370
 67   1  0      |     DIRECT_DBKEY=-1;                 /*THIS IS HOW YOU TELL IDMS TO|00002380
                |                                      PLACE HIM SOMEWHERE*/   |00002390
                |/*STORE RECORD(DIRECTOR). */                                  |00002400
 68   1  0      |     DO;                                                      |00002410
 69   1  1      |        CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0007;             |00002420
 70   1  1      |        CIAM_CB.ID.RECORD= 'DIRECTOR       ';                 |00002430
 71   1  1      |        CALL CIAMDML (                                        |00002440
                |        CIAM_CB,IDBMSCOM(42) ,CIAM_CB.ID.RECORD /*DIRECTOR  */);|00002450
 72   1  1      |     END;                                                     |00002460

 73   1  0      |     IF ERROR_STATUS ¬= '0000' THEN                           |00002480  1
                |        SIGNAL COND(IDMSERR);                                 |00002490
 74   1  0      |     PUT FILE(AUDIT) PAGE                                     |00002500
                |     EDIT('ADDIR','CREATION OF THE DIRECTOR', 'TIME',TIME_TODAY,'DATE',|00002510
                |     DATE_TODAY,'PAGE  1',                                    |00002520
                |     'DIRECTOR''S NAME ENTERED INTO DATABASE AS:   ',DIRECTORS_NAME,|00002530
                |     'DIRECTOR''S DATABASE KEY RETURNED WAS: ',DBKEY) (       |00002540
                |     A,COL(10),A,COL(75),A,X(1),A,X(2),A,X(1),A,X(2),A, SKIP(2),A,A,|00002550
                |     SKIP(1),A,X(6),F(7));                                    |00002560
                |/* FINISH. */                                                |00002570
 75   1  0      |     DO;                                                      |00002580
 76   1  1      |        CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=0008;             |00002590
 77   1  1      |        CALL CIAMDML (CIAM_CB,IDBMSCOM(02) );                 |00002600
 78   1  1      |     END;                                                     |00002610

 79   1  0      |     IF ERROR_STATUS ¬= '0000' THEN                           |00002630  1
```

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    STMT LEV NT                                                                  R

                 |        SIGNAL COND(IDMSERR);                                  |00002640
      80    1  0 |    END ADDIR;                                                 |00002650
```

ATTRIBUTE AND CROSS-REFERENCE TABLE (FULL)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
27	#ARGS	/* IN ARG_INFORMATION IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
1	ADDIR	EXTERNAL ENTRY RETURNS(DECIMAL /* SINGLE */ FLOAT (6))
27	AREA	/* IN ID IN CIAM_CB */ BASED UNALIGNED CHARACTER (16) 62,63
27	AREA_NAME	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (16) 28 18
27	ARG_INFORMATION	/* IN CIAM_CB */ BASED /* STRUCTURE */
27	ARGS	(12) /* IN ARG_INFORMATION IN CIAM_CB */ BASED ALIGNED POINTER
32	AUDIT	EXTERNAL FILE STREAM PRINT OUTPUT 74 36
29	BINARY	BUILTIN 8,10,19
27	BR_10	/* IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (2) 28
27	CALC_OVERFLOW	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	CALC_TARGET	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	CALLS_TO_IDMS	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	CB__LENGTH	/* IN CIAM_CTRL IN CIAM_CB */ BASED ALIGNED INITIAL BINARY FIXED (31,0) 28
27	CIAM_CB	BASED (CIAMPTR) /* STRUCTURE */ 28,28,31,47,52,57,63,71,77 22,39
27	CIAM_CTRL	/* IN CIAM_CB */ BASED /* STRUCTURE */
2	CIAMDML	EXTERNAL ENTRY RETURNS(DECIMAL /* SINGLE */ FLOAT (6)) 47,52,57,63,71,77 22,39
27	CIAMPTR	STATIC EXTERNAL ALIGNED POINTER 28,28,28,28,28,28,28,28,28,28,28,28,31,31,43,45,46,47,47,47,47,50,51,52, 52,52,52,55,56,57,57,57,57,59,61,62,63,63,63,65,66,67,69,70,71,71,71,73,74, 74,74,74,76,77,77,79

```
DCL NO.   IDENTIFIER                ATTRIBUTES AND REFERENCES

                                    5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,21,22,22,38,39,39
27        COMMUNCIATIONS_PATH       /* IN CIAM_CB */ BASED /* STRUCTURE */
27        DATABASE_STATUS           /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED /* STRUCTURE */
27        DATE_TODAY                /* IN DB_STATISTICS IN CIAM_CB */ BASED UNALIGNED CHARACTER (8)
                                    74
27        DB_STATISTICS             /* IN CIAM_CB */ BASED /* STRUCTURE */
27        DBKEY                     /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
                                    74
                                    12
27        DBMS_ID                   /* IN COMMUNCIATIONS_PATH IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER
                                    (8)
                                    28
                                    9
27        DBMS_PORT                 /* IN COMMUNCIATIONS_PATH IN CIAM_CB */ BASED UNALIGNED BIT (8)
                                    10
27        DBSTATMENT_CODE           /* IN DATABASE_STATUS IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED
                                    CHARACTER (2)
27        DBSTATUS_CODE             /* IN DATABASE_STATUS IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED
                                    CHARACTER (5)
27        DIRECT_DBKEY              /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
                                    67
27        DIRECTOR                  /* IN CIAM_CB */ BASED /* STRUCTURE */
                                    52
27        DIRECTORS_NAME            /* IN DIRECTOR IN CIAM_CB */ BASED UNALIGNED CHARACTER (24)
                                    66,74
27        DML_SEQUENCE              /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
                                    45,50,55,61,69,76
                                    19,21,38
27        DML_TIMEOUT               /* IN CIAM_CTRL IN CIAM_CB */ BASED ALIGNED INITIAL BINARY FIXED (31,0)
                                    28
27        ERROR_AREA                /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (16)
                                    28
                                    16
27        ERROR_RECORD              /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (16)
                                    28
                                    14
27        ERROR_SET                 /* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (16)
```

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		28 15
27	ERROR_STATUS	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (4) 28,59,65,73,79 5,13
27	EVENT	/* IN CIAM_CB */ BASED /* STRUCTURE */ 57
27	EVENT_DATE	/* IN EVENT IN CIAM_CB */ BASED UNALIGNED PICTURE'999999'
27	EVENT_LOCATION	/* IN EVENT IN CIAM_CB */ BASED /* STRUCTURE */
27	EVENT_NAME	/* IN EVENT IN CIAM_CB */ BASED UNALIGNED CHARACTER (26)
27	FACILITY_NAME	/* IN EVENT_LOCATION IN EVENT IN CIAM_CB */ BASED UNALIGNED CHARACTER (24)
27	FACILITY_TOWN	/* IN EVENT_LOCATION IN EVENT IN CIAM_CB */ BASED UNALIGNED CHARACTER (24)
27	FILLER0001	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED CHARACTER (1)
27	FRAGMENTS_STORED	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
30	HEX	GENERIC 31,31
30	HEXPTR	EXTERNAL ENTRY RETURNS(CHARACTER (6)) 31
30	HEX15	EXTERNAL ENTRY(ALIGNED BINARY FIXED (15,0)) RETURNS(CHARACTER (4))
30	HEX31	EXTERNAL ENTRY(ALIGNED BINARY FIXED (31,0)) RETURNS(CHARACTER (8)) 31
27	ID	/* IN CIAM_CB */ BASED /* STRUCTURE */
27	IDBMSCOM	(100) /* IN IDBMSCOM_AREA IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED CHARACTER (1) 47,52,57,63,71,77 22,39
27	IDBMSCOM_AREA	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED /* STRUCTURE */
3	IDMSERR	EXTERNAL CONDITION 4,59,65,73,79
27	LINES_REQUESTED	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	LOCAL_ID	/* IN DB_STATISTICS IN CIAM_CB */ BASED UNALIGNED CHARACTER (8)
27	LOCKS_REQUESTED	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	MESSAGE_ID	/* IN COMMUNCIATIONS_PATH IN CIAM_CB */ BASED ALIGNED BINARY FIXED (15,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
		11
27	PAGES_READ	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	PAGES_REQUESTED	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	PAGES_WRITTEN	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	PROGRAM	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (8) 28,43 6
27	RECORD	/* IN ID IN CIAM_CB */ BASED UNALIGNED CHARACTER (16) 51,52,56,57,70,71
27	RECORD_NAME	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED UNALIGNED INITIAL CHARACTER (16) 28 17
27	RECORD_OCCUR	/* IN SUBSCHEMA_CTRL IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	RECS_CURRENT	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	RECS_RELOCATED	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	REMOTE_ID	/* IN DB_STATISTICS IN CIAM_CB */ BASED UNALIGNED CHARACTER (8)
27	RUN_UNIT_ID	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	SEL_LOCKS_HELD	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	SET	/* IN ID IN CIAM_CB */ BASED UNALIGNED CHARACTER (16)
29	STORAGE	BUILTIN 28,31
27	SUB_SCHEMA	/* IN ID IN CIAM_CB */ BASED UNALIGNED CHARACTER (8) 46,47
27	SUBSCHEMA_CTRL	/* IN CIAM_CB */ BASED /* STRUCTURE */ 47
33	SYSIN	EXTERNAL FILE STREAM INPUT 35,66
34	SYSPRINT	EXTERNAL FILE STREAM OUTPUT
27	TASK_ID	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	TIME_TODAY	/* IN DB_STATISTICS IN CIAM_CB */ BASED UNALIGNED CHARACTER (8) 74
27	UPD_LOCKS_HELD	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)

DCL NO.	IDENTIFIER	ATTRIBUTES AND REFERENCES
27	USER_ID	/* IN COMMUNCIATIONS_PATH IN CIAM_CB */ BASED UNALIGNED CHARACTER (8) 7
27	USER_PORT	/* IN COMMUNCIATIONS_PATH IN CIAM_CB */ BASED UNALIGNED BIT (8) 8
27	VIA_OVERFLOW	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)
27	VIA_TARGET	/* IN DB_STATISTICS IN CIAM_CB */ BASED ALIGNED BINARY FIXED (31,0)

AGGREGATE LENGTH TABLE

DCL NO.	IDENTIFIER	LVL	DIMS	OFFSET	ELEMENT LENGTH.	TOTAL LENGTH.
27	CIAM_CB	1			560	560
	CIAM_CTRL	2			8	8
	CB__LENGTH	3			4	
	DML_TIMEOUT	3		4	4	
	ARG_INFORMATION	2		8	52	52
	#ARGS	3		8	4	
	ARGS	3	1	12	4	48
	ID	2		60	56	56
	SUB_SCHEMA	3		60	8	
	RECORD	3		68	16	
	SET	3		84	16	
	AREA	3		100	16	
	BR_10	2		116	2	
	COMMUNCIATIONS_PATH	2		118	20	20
	USER_ID	3		118	8	
	USER_PORT	3		126	1	
	DBMS_ID	3		127	8	
	DBMS_PORT	3		135	1	
	MESSAGE_ID	3		136	2	
	/*PADDING*/	2		138	2	
	DB_STATISTICS	2		140	100	100
	DATE_TODAY	3		140	8	
	TIME_TODAY	3		148	8	
	PAGES_READ	3		156	4	
	PAGES_WRITTEN	3		160	4	
	PAGES_REQUESTED	3		164	4	
	CALC_TARGET	3		168	4	
	CALC_OVERFLOW	3		172	4	
	VIA_TARGET	3		176	4	
	VIA_OVERFLOW	3		180	4	
	LINES_REQUESTED	3		184	4	
	RECS_CURRENT	3		188	4	
	CALLS_TO_IDMS	3		192	4	
	FRAGMENTS_STORED	3		196	4	
	RECS_RELOCATED	3		200	4	
	LOCKS_REQUESTED	3		204	4	
	SEL_LOCKS_HELD	3		208	4	
	UPD_LOCKS_HELD	3		212	4	
	RUN_UNIT_ID	3		216	4	
	TASK_ID	3		220	4	
	LOCAL_ID	3		224	8	
	REMOTE_ID	3		232	8	
	SUBSCHEMA_CTRL	2		240	216	216
	PROGRAM	3		240	8	
	ERROR_STATUS	3		248	4	
	DBKEY	3		252	4	
	RECORD_NAME	3		256	16	
	AREA_NAME	3		272	16	
	ERROR_SET	3		288	16	
	ERROR_RECORD	3		304	16	
	ERROR_AREA	3		320	16	
	IDBMSCOM_AREA	3		336	100	100

DCL NO.	IDENTIFIER	LVL	DIMS	OFFSET	ELEMENT LENGTH.	TOTAL LENGTH.
	IDBMSCOM	4	1	336	1	100
	DIRECT_DBKEY	3		436	4	
	DATABASE_STATUS	3		440	7	7
	DBSTATMENT_CODE	4		440	2	
	DBSTATUS_CODE	4		442	5	
	FILLER0001	3		447	1	
	RECORD_OCCUR	3		448	4	
	DML_SEQUENCE	3		452	4	
	DIRECTOR	2		456	24	24
	DIRECTORS_NAME	3		456	24	
	EVENT	2		480	80	80
	EVENT_NAME	3		480	26	
	EVENT_DATE	3		506	6	
	EVENT_LOCATION	3		512	48	48
	FACILITY_NAME	4		512	24	
	FACILITY_TOWN	4		536	24	
				SUM OF CONSTANT LENGTHS		560

STORAGE REQUIREMENTS

BLOCK, SECTION OR STATEMENT	TYPE	LENGTH	(HEX)	DSA SIZE	(HEX)
**ADDIR1	PROGRAM CSECT	3112	C28		
**ADDIR2	STATIC CSECT	1248	4E0		
ADDIR	PROCEDURE BLOCK	1544	608	408	198
4	ON UNIT	1246	4DE	288	120
35	ON UNIT	320	140	272	110

EXTERNAL SYMBOL DICTIONARY

SYMBOL	TYPE	ID	ADDR	LENGTH
PLISTART	SD	0001	000000	000050
**ADDIR1	SD	0002	000000	000C28
**ADDIR2	SD	0003	000000	0004E0
PLITABS	WX	0004	000000	
PLIXOPT	WX	0005	000000	
IBMBPOPT	WX	0006	000000	
PLIXHD	WX	0007	000000	
IBMBEATA	WX	0008	000000	
PLIFLOW	WX	0009	000000	
PLICOUNT	WX	000A	000000	
IBMBPIRA	ER	000B	000000	
IBMBPIRB	ER	000C	000000	
IBMBPIRC	ER	000D	000000	
PLICALLA	LD		000006	
PLICALLB	LD		00000A	
PLIMAIN	SD	000E	000000	000008
CIAMDML	ER	000F	000000	
HEX31	ER	0010	000000	
HEXPTR	ER	0011	000000	
HEX15	ER	0012	000000	
IELCGOA	SD	0013	000000	000072
IELCGOB	SD	0014	000000	000070
IELCGOC	SD	0015	000000	00007C
IBMBCPBD	ER	0016	000000	
IBMBSIOA	ER	0017	000000	
IBMBCACA	ER	0018	000000	
IBMBCCBA	ER	0019	000000	
IBMBCCSA	ER	001A	000000	
IBMBCHFD	ER	001B	000000	
IBMBCHXH	WX	001C	000000	
IBMBCPBX	WX	001D	000000	
IBMBCTHD	ER	001E	000000	
IBMBCUID	ER	001F	000000	
IBMBCVDY	ER	0020	000000	
IBMBCWDH	ER	0021	000000	
IBMBJDSA	ER	0022	000000	
IBMBOCLA	ER	0023	000000	
IBMBOCLC	WX	0024	000000	
IBMBSEOA	ER	0025	000000	
IBMBSIIA	ER	0026	000000	
IBMBSIOB	WX	0027	000000	
IBMBSIOE	WX	0028	000000	
IBMBSIOT	WX	0029	000000	
IBMBSLIA	ER	002A	000000	
IBMBSPLA	ER	002B	000000	
IBMBSPLC	WX	002C	000000	
IBMBSXCA	ER	002D	000000	
IBMBSXCB	WX	002E	000000	
IBMBSXCD	WX	002F	000000	
IBMBCKDD	ER	0030	000000	
IBMBSIST	WX	0031	000000	
CIAMPTR	CM	0032	000000	000004

ADDIR	LD		000008	
IDMSERR	SD	0033	000000	000008
AUDIT	SD	0034	000000	00001C
AUDIT	PR	0035	000000	000004
SYSIN	SD	0036	000000	00001C
SYSIN	PR	0037	000000	000004
SYSPINT	SD	0038	000000	000020

STATIC INTERNAL STORAGE MAP

```
000000  C00004DC          PROGRAM ADCON
000004  00000008          PROGRAM ADCON
000008  000000A6          PROGRAM ADCON
00000C  00000608          PROGRAM ADCON
000010  0000065A          PROGRAM ADCON
000014  00000AE8          PROGRAM ADCON
000018  00000B3A          PROGRAM ADCON
00001C  00000B3A          PROGRAM ADCON
000020  00000B3A          PROGRAM ADCON
000024  00000B3A          PROGRAM ADCON
000028  00000B3A          PROGRAM ADCON
00002C  00000B3A          PROGRAM ADCON
000030  00000B3A          PROGRAM ADCON
000034  00000000          A..IELCGOA
000038  00000000          A..IELCGOB
00003C  00000000          A..IELCGOC
000040  00000000          A..IBMBCACA
000044  00000000          A..IBMBCCBA
000048  00000000          A..IBMBCCSA
00004C  00000000          A..IBMBCHFD
000050  00000000          A..IBMBCHXH
000054  00000000          A..IBMBCPBX
000058  00000000          A..IBMBCTHD
00005C  00000000          A..IBMBCUID
000060  00000000          A..IBMBCVDY
000064  00000000          A..IBMBCWDH
000068  00000000          A..IBMBJDSA
00006C  00000000          A..IBMBOCLA
000070  00000000          A..IBMBOCLC
000074  00000000          A..IBMBSEOA
000078  00000000          A..IBMBSIIA
00007C  00000000          A..IBMBSIOB
000080  00000000          A..IBMBSIOE
000084  00000000          A..IBMBSIOT
000088  00000000          A..IBMBSLIA
00008C  00000000          A..IBMBSPLA
000090  00000000          A..IBMBSPLC
000094  00000000          A..IBMBSXCA
000098  00000000          A..IBMBSXCB
00009C  00000000          A..IBMBSXCD
0000A0  00000000          A..IBMBCKDD
0000A4  00000000          A..STATIC
0000A8  2000              DED..DIRECTORS_NAME
0000AA  58000005          FED
0000AE  0000000A          FED
0000B2  58000018          FED
0000B6  0000004B          FED
0000BA  58000004          FED
0000BE  60000001          FED
0000C2  58000008          FED
0000C6  60000002          FED
0000CA  58000007          FED
0000CE  00000002          FED
0000D2  5800002C          FED
0000D6  00000001          FED
0000DA  58000026          FED
0000DE  60000006          FED
0000E2  00021F80          DED..DBKEY
0000E6  500000070080      FED
0000EC  2401              DED..USER_PORT
0000EE  00000F80          DED
0000F2  58000022          FED
0000F6  5800001F          FED
0000FA  58000025          FED
0000FE  4040402020202020  CONSTANT
        2020202021 20
00010C
000110  0000000000060000  LOCATOR
000118  0000000000080000  LOCATOR
000120  00000000000F0000  LOCATOR
000128  0000000000180000  LOCATOR..DIRECTORS_NAME
000130  00000000001E0000  LOCATOR
000138  00000000001F0000  LOCATOR
000140  0000000000240000  LOCATOR
000148  00000000001A0000  LOCATOR
000150  0000000000260000  LOCATOR
000158  91E091E0          CONSTANT
00015C  00000230          CONSTANT
000160  0000003C          CONSTANT
000164  00000003          CONSTANT
000168  00000004          CONSTANT
00016C  00000005          CONSTANT
000170  00000006          CONSTANT
000174  FFFFFFFF          CONSTANT
000178  00000007          CONSTANT
00017C  00000008          CONSTANT
000180  00000001          CONSTANT
000184  00000002          CONSTANT
000188  00000000          A..CIAMPTR
00018C  00000000          A..DCLCB
000190  00000000          A..DCLCB
000194  00000000          A..DCLCB
000198  00000000          A..CONDITION CSECT
00019C  00000000          A..CIAMPTR
0001A0  80000000          A..TEMP
0001A4  00000000          A..ENTRY HEXPTR
0001A8  00000000          A..TEMP
0001AC  80000000          A..TEMP
0001B0  00000000          A..ENTRY HEX31
0001B4  80000000          A..TEMP
0001B8  00000000          A..TEMP
0001BC  00000000          A..TEMP
0001C0  00000000          A..TEMP
0001C4  80000000          A..TEMP
0001C8  00000000          A..ENTRY CIAMDML
0001CC  00000000          A..TEMP
0001D0  00000000          A..TEMP
0001D4  00000000          A..TEMP
0001D8  80000000          A..TEMP
0001DC  0F000000          CONSTANT
0001E0  00000000          A..CONDITION CSECT
0001E4  00000000          A..TEMP
```

```
0001E8  00000000            A..TEMP
0001EC  80000000            A..TEMP
0001F0  00000000            A..DCLCB
0001F4  80000000            A..TEMP
0001F8  00000000            A..DCLCB
0001FC  80000000            A..TEMP
000200  00000000            A..TEMP
000204  80000000            A..TEMP
000208  80000000            A..TEMP
00020C  0D800000            CONSTANT
000210  00000000            A..DCLCB
000214  00000000            A..TEMP
000218  80000180            A..CONSTANT
00021C  07FA                CONSTANT
00021E  E5D4F6D3F8404040    CONSTANT
000226  4040404040404040    CONSTANT
00022E  F1F4F0F0            CONSTANT
000232  4040404040404040    CONSTANT
        4040404040404040
000242  C1C4C4C9D9404040    CONSTANT
00024A  C3C1D3C5D5C4C1D9    CONSTANT
000252  C4C9D9C5C3E3D6D9    CONSTANT
        4040404040404040
000262  C5E5C5D5E3404040    CONSTANT
        4040404040404040
000272  F0F0F0F0            CONSTANT
000276  D4C1C9D540404040    CONSTANT
        4040404040404040
000286  C3D9C5C1E3C9D6D5    CONSTANT
        40D6C640E3C8C540
        C4C9D9C5C3E3D6D9
00029E  E3C9D4C5            CONSTANT
0002A2  C4C1E3C5            CONSTANT
0002A6  D7C1C7C54040F1      CONSTANT
0002AD  C4C9D9C5C3E3D6D9    CONSTANT
        7DE240D5C1D4C540
        C5D5E3C5D9C5C440
        C9D5E3D640C4C1E3
        C1C2C1E2C540C1E2
        7A404040
0002D9  C4C9D9C5C3E3D6D9    CONSTANT
        7DE240C4C1E3C1C2
        C1E2C540D2C5E840
        D9C5E3E4D9D5C5C4
        40E6C1E27A40
0002FF  D7D9D6C7D9C1D440    CONSTANT
        D5C1D4C540606060
        60606060606040
000315  E4E2C5D940C9C440    CONSTANT
        6060606060606060
        6060606060606040
00032B  4040202020202021    CONSTANT
        20
000334  E4E2C5D940D7D6D9    CONSTANT
        E340606060606060
        6060606060606040
00034A  C4C2D4E240C9C440    CONSTANT
        6060606060606060
        6060606060606040
000360  C4C2D4E240D7D6D9    CONSTANT
        E340606060606060
        6060606060606040
00037E  D4C5E2E2C1C7C540    CONSTANT
        C9C4406060606060
        6060606060606040
00038C  C4C2D2C5E8406060    CONSTANT
        6060606060606060
        6060606060606040
0003A2  C5D9D9D6D940E2E3    CONSTANT
        C1E3E4E240606060
        6060606060606040
0003B8  C5D9D9D6D940D9C5    CONSTANT
        C3D6D9C440606060
        6060606060606040
0003CE  C5D9D9D6D940E2C5    CONSTANT
        E340606060606060
        6060606060606040
0003E4  C5D9D9D6D940C1D9    CONSTANT
        C5C1406060606060
        6060606060606040
0003FA  D3C1E2E340C7D6D6    CONSTANT
        C440D9C5C3D6D9C4
        4060606060606040
000410  D3C1E2E340C7D6D6    CONSTANT
        C440C1D9C5C14060
        6060606060606040
000426  C4D4D340E2C5D8E4    CONSTANT
        C5D5C3C540606060
        6060606060606040
00043C  5C5C5C40C5D9D9D6    CONSTANT
        D9405C5C5C40C5D6
        C640D6C3C3E4D9C5
        C440D6D540E2E8E2
        C9D5
00045E  40D5D640C4C9D9C5    CONSTANT
        C3E3D6D9E27DE240
        D5C1D4C540E6C1E2
        40C6D6E4D5C44B
00047D  40C1C2D6D9E3C9D5    CONSTANT
        C740D9E4D56B40D9
        C5D9E4D540E6C9E3
        C840C4C9D9C5C3E3
        D6D97DE240
0004A2  40D5C1D4C540C3D6    CONSTANT
        D9D9C5C3E3D3E840
        C5D5E3C5D9C5C44B
0004BA
0004C0  00000352000000A6    COMPILER LABEL CL.11
```

STATIC EXTERNAL CSECTS

```
000000  07C9C4D4E2C5D9D9        CONDITION CSECT IDMSERR

000000  FFFFFFFC41200000        DCLCB
        02D70F0000000000
        F1F2001400008E2E8
        E2D7D9C9D5E340D9

000000  0000000001100000        DCLCB
        02E71F0000000000
        4040001400005E2E8
        E2C9D540

000000  0000000001201000        DCLCB
        02D70F0000000000
        4040001400005C1E4
        C4C9E3F0
```

TABLES OF OFFSETS AND STATEMENT NUMBERS

WITHIN PROCEDURE ADDIR

OFFSET (HEX)	0	9E	AA	106	19C	1A8	1B6	1B6	1BE	1C8	1F4	1F4	1F4	204	20E
STATEMENT NO.	1	4	28	31	35	43	44	45	46	47	48	49	50	51	52
OFFSET (HEX)	23A	23A	23A	24A	254	280	280	29C	29C	2AC	2B6	2DA	2DA	2F6	34A
STATEMENT NO.	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67
OFFSET (HEX)	35A	35A	366	370	394	394	3B0	5A4	5A4	5B4	5D4	5D4	5F0		
STATEMENT NO.	68	69	70	71	72	73	74	75	76	77	78	79	80		

WITHIN ON UNIT

OFFSET (HEX)	0	52	64	94	CC	15C	194	224	284	2E4	31C	354	38C	3C4	3FC
STATEMENT NO.	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
OFFSET (HEX)	434	494	494	4A4	4C4	4C4	4CE	4CE							
STATEMENT NO.	19	20	21	22	23	24	25	26							

WITHIN ON UNIT

OFFSET (HEX)	0	52	F6	F6	106	126	126	130
STATEMENT NO.	35	36	37	38	39	40	41	42

OBJECT LISTING

```
* COMPILER GENERATED SUBROUTINE IELCGOA
000000  50 E0 1 00C              ST    14,12(0,1)
000004  58 F0 1 014              L     15,20(0,1)
000008  91 10 1 011              TM    17(1),X'10'
00000C  47 10 7 014              BO    *+8
000010  96 04 C 002              OI    2(12),X'04'
000014  D2 03 1 008 F 04C        MVC   8(4,1),76(15)
00001A  48 F0 F 050              LH    15,80(0,15)
00001E  4B F0 E 002              SH    15,2(0,14)
000022  07 B6                   BCR   11,6
000024  96 40 1 010              OI    16(1),X'40'
000028  58 F0 D 04C              L     15,76(0,13)
00002C  50 F0 1 008              ST    15,8(0,1)
000030  4A F0 E 002              AH    15,2(0,14)
000034  4A F0 7 070              AH    15,112(0,7)
000038  54 F0 7 06C              N     15,108(0,7)
00003C  55 F0 C 00C              CL    15,12(0,12)
000040  47 20 7 04A              BH    *+10
000044  50 F0 D 04C              ST    15,76(0,13)
000048  07 F6                   BR    6
00004A  50 00 1 01C              ST    0,28(0,1)
00004E  18 71                   LR    7,1
000050  18 0F                   LR    0,15
000052  58 10 D 04C              L     1,76(0,13)
000056  58 F0 C 048              L     15,72(0,12)
00005A  05 EF                   BALR  14,15
00005C  50 00 D 04C              ST    0,76(0,13)
000060  50 10 7 008              ST    1,8(0,7)
000064  18 17                   LR    1,7
000066  58 00 1 01C              L     0,28(0,1)
00006A  07 F6                   BR    6
00006C  FFFFFFF8                 DC    X'FFFFFFF8'
000070                           DC    AL2(7)

* END OF COMPILER GENERATED SUBROUTINE

* COMPILER GENERATED SUBROUTINE IELCGOB
000000  94 FB C 002              NI    2(12),X'FB'
000004  91 40 1 010              TM    16(1),X'40'
000008  47 10 7 054              BO    *+76
00000C  58 F0 1 014              L     15,20(0,1)
000010  50 70 1 01C              ST    7,28(0,1)
000014  58 70 1 00C              L     7,12(0,1)
000018  48 E0 F 050              LH    14,80(0,15)
00001C  4B E0 7 002              SH    14,2(0,7)
000020  40 E0 F 050              STH   14,80(0,15)
000024  58 E0 F 04C              L     14,76(0,15)
000028  4A E0 7 002              AH    14,2(0,7)
00002C  50 E0 F 04C              ST    14,76(0,15)
000030  48 E0 1 020              LH    14,32(0,1)
000034  41 E0 E 001              LA    14,1(0,14)
000038  40 E0 1 020              STH   14,32(0,1)
00003C  40 E0 F 052              STH   14,82(0,15)
000040  91 10 1 010              TM    16(1),X'10'
000044  07 86                   BCR   8,6
000046  58 70 1 01C              L     7,28(0,1)
00004A  58 F0 7 068              L     15,104(0,7)
00004E  18 E6                   LR    14,6
000050  07 FF                   BR    15
000052  07 F6                   BR    6
000054  58 F0 7 06C              L     15,108(0,7)
000058  05 EF                   BALR  14,15
00005A  58 E0 1 008              L     14,8(0,1)
00005E  50 E0 D 04C              ST    14,76(0,13)
000062  94 BF 1 010              NI    16(1),X'BF'
000066  07 F6                   BR    6
000068                           DC    AL4(0)
00006C                           DC    AL4(0)

* END OF COMPILER GENERATED SUBROUTINE

* COMPILER GENERATED SUBROUTINE IELCGOC
000000  95 00 E 002              CLI   2(14),X'00'
000004  47 70 7 066              BNE   *+98
000008  95 00 E 003              CLI   3(14),X'00'
00000C  07 86                   BCR   8,6
00000E  58 F0 1 014              L     15,20(0,1)
000012  50 20 1 01C              ST    2,28(0,1)
000016  48 20 E 002              LH    2,2(0,14)
00001A  49 20 F 050              CH    2,80(0,15)
00001E  47 20 7 062              BH    *+68
000022  48 E0 F 050              LH    14,80(0,15)
000026  1B E2                   SR    14,2
000028  40 E0 F 050              STH   14,80(0,15)
00002C  58 E0 F 04C              L     14,76(0,15)
000030  1A E2                   AR    14,2
000032  50 E0 F 04C              ST    14,76(0,15)
000036  1B E2                   SR    14,2
000038  06 20                   BCTR  2,0
00003A  12 F2                   LTR   15,2
00003C  58 20 1 01C              L     2,28(0,1)
000040  92 40 E 000              MVI   0(14),X'40'
000044  47 80 7 04E              BZ    *+10
000048  06 F0                   BCTR  15,0
00004A  44 F0 7 05C              EX    15,*+18
00004E  91 10 1 010              TM    16(1),X'10'
000052  07 86                   BCR   8,6
000054  58 F0 7 078              L     15,120(0,7)
000058  18 E6                   LR    14,6
00005A  07 FF                   BR    15
00005C  D2 00 E 001 E 000        MVC   1(1,14),0(14)
000062  58 20 1 01C              L     2,28(0,1)
000066  50 E0 1 00C              ST    14,12(0,1)
00006A  58 F0 7 074              L     15,116(0,7)
00006E  18 E6                   LR    14,6
000070  07 FF                   BR    15
000072  07 00                   NOPR  0
000074                           DC    AL4(0)
000078                           DC    AL4(0)

* END OF COMPILER GENERATED SUBROUTINE
```

```
* STATEMENT NUMBER  1
000000                          DC     C'  ADDIR'
000007                          DC     AL1(5)

* PROCEDURE                             ADDIR

* REAL ENTRY
000008  90 EC D 00C             STM    14,12,12(13)
00000C  47 F0 F 010             B      *+12
000010  00000198                DC     F'408'
000014  00000000                DC     A(STATIC CSECT)
000018  58 30 F 00C             L      3,12(0,15)
00001C  58 10 D 04C             L      1,76(0,13)
000020  58 00 F 008             L      0,8(0,15)
000024  1E 01                   ALR    0,1
000026  55 00 C 00C             CL     0,12(0,12)
00002A  47 D0 F 02C             BNH    *+10
00002E  58 F0 C 074             L      15,116(0,12)
000032  05 EF                   BALR   14,15
000034  58 E0 D 048             L      14,72(0,13)
000038  18 F0                   LR     15,0
00003A  90 E0 1 048             STM    14,0,72(1)
00003E  50 D0 1 004             ST     13,4(0,1)
000042  41 D1 0 000             LA     13,0(1,0)
000046  50 50 D 058             ST     5,88(0,13)
00004A  92 A0 D 000             MVI    0(13),X'A0'
00004E  92 20 D 001             MVI    1(13),X'20'
000052  1B 88                   SR     8,8
000054  50 80 D 0D0             ST     8,208(0,13)
000058  41 80 D 0D0             LA     8,208(0,13)
00005C  41 90 0 001             LA     9,1(0,0)
000060  05 F0                   BALR   15,0
000062  50 80 8 010             ST     8,16(0,8)
000066  41 80 8 010             LA     8,16(0,8)
00006A  06 9F                   BCTR   9,15
00006C  50 80 D 060             ST     8,96(0,13)
000070  D2 03 D 054 3 158       MVC    84(4,13),344(3)
000076  58 40 3 198             L      4,408(0,3)
00007A  50 40 D 0D4             ST     4,212(0,13)
00007E  92 06 D 0D9             MVI    217(13),X'06'
000082  92 0F D 0D8             MVI    216(13),X'0F'
000086  D7 01 D 0DA D 0DA       XC     218(2,13),218(13)
00008C  58 90 3 190             L      9,400(0,3)
000090  50 90 D 0E4             ST     9,228(0,13)
000094  92 06 D 0E9             MVI    233(13),X'06'
000098  92 13 D 0E8             MVI    232(13),X'13'
00009C  D7 01 D 0EA D 0EA       XC     234(2,13),234(13)
0000A2  18 89                   LR     8,9
0000A4  05 20                   BALR   2,0

* PROCEDURE BASE

* STATEMENT NUMBER  4
0000A6  92 17 D 0D9             MVI    217(13),X'17'

0000AA  58 70 3 00C                    L      7,12(0,3)
0000AE  50 70 D 0DC                    ST     7,220(0,13)

* STATEMENT NUMBER  28
0000B2  58 00 3 15C                    L      0,348(0,3)
0000B6  58 F0 C 06C                    L      15,108(0,12)
0000BA  05 EF                          BALR   14,15
0000BC  58 F0 3 188                    L      15,392(0,3)
0000C0  50 10 F 000                    ST     1,CIAMPTR

* INITIALIZATION CODE FOR DML_TIMEOUT
0000C4  58 E0 3 160                    L      14,352(0,3)
0000C8  50 E0 1 004                    ST     14,CIAM_CB.CIAM_CT
                                               RL.DML_TIMEOUT

* INITIALIZATION CODE FOR BR_10
0000CC  58 70 F 000                    L      7,CIAMPTR
0000D0  D2 01 7 074 3 21C              MVC    CIAM_CB.BR_10(2),5
                                               40(3)

* INITIALIZATION CODE FOR DBMS_ID
0000D6  D2 07 7 07F 3 21E              MVC    CIAM_CB.COMMUNCIAT
                                               IONS_PATH.DBMS_ID(
                                               8),542(3)

* INITIALIZATION CODE FOR PROGRAM
0000DC  D2 07 7 0F0 3 226              MVC    CIAM_CB.SUBSCHEMA_
                                               CTRL.PROGRAM(8),55
                                               0(3)

* INITIALIZATION CODE FOR ERROR_STATUS
0000E2  D2 03 7 0F8 3 22E              MVC    CIAM_CB.SUBSCHEMA_
                                               CTRL.ERROR_STATUS(
                                               4),558(3)

* INITIALIZATION CODE FOR RECORD_NAME
0000E8  D2 0F 7 100 3 232              MVC    CIAM_CB.SUBSCHEMA_
                                               CTRL.RECORD_NAME(1
                                               6),562(3)

* INITIALIZATION CODE FOR AREA_NAME
0000EE  D2 0F 7 110 3 232              MVC    CIAM_CB.SUBSCHEMA_
                                               CTRL.AREA_NAME(16)
                                               ,562(3)

* INITIALIZATION CODE FOR ERROR_SET
0000F4  D2 0F 7 120 3 232              MVC    CIAM_CB.SUBSCHEMA_
                                               CTRL.ERROR_SET(16)
                                               ,562(3)

* INITIALIZATION CODE FOR ERROR_RECORD
0000FA  D2 0F 7 130 3 232              MVC    CIAM_CB.SUBSCHEMA_
                                               CTRL.ERROR_RECORD(
                                               16),562(3)

* INITIALIZATION CODE FOR ERROR_AREA
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000100  D2 0F 7 140 3 232        MVC   CIAM_CB.SUBSCHEMA_
                                       CTRL.ERROR_AREA(16
                                       ),562(3)
* INITIALIZATION CODE FOR CB__LENGTH
000106  58 60 3 15C              L     6,348(0,3)
00010A  50 60 7 000              ST    6,CIAM_CB.CIAM_CTR
                                       L.CB__LENGTH
* END OF INITIALIZATION CODE FOR CB__LENGTH

* STATEMENT NUMBER  31
00010E  D2 07 D 160 3 110        MVC   352(8,13),272(3)
000114  18 81                   LR    8,1
000116  41 10 D 15A              LA    1,346(0,13)
00011A  50 10 D 160              ST    1,352(0,13)
00011E  41 10 D 160              LA    1,352(0,13)
000122  50 10 3 1A0              ST    1,416(0,3)
000126  96 80 3 1A0              OI    416(3),X'80'
00012A  1B 55                    SR    5,5
00012C  41 10 3 19C              LA    1,412(0,3)
000130  58 F0 3 1A4              L     15,420(0,3)
000134  05 EF                    BALR  14,15
000136  D2 05 D 168 D 15A        MVC   360(6,13),346(13)
00013C  92 40 D 16E              MVI   366(13),X'40'
000140  58 F0 3 188              L     15,392(0,3)
000144  58 E0 F 000              L     14,CIAMPTR
000148  50 60 D 190              ST    6,400(0,13)
00014C  41 10 D 190              LA    1,400(0,13)
000150  50 10 3 1A8              ST    1,424(0,3)
000154  D2 07 D 180 3 118        MVC   384(8,13),280(3)
00015A  41 60 D 178              LA    6,376(0,13)
00015E  50 60 D 180              ST    6,384(0,13)
000162  41 60 D 180              LA    6,384(0,13)
000166  50 60 3 1AC              ST    6,428(0,3)
00016A  96 80 3 1AC              OI    428(3),X'80'
00016E  1B 55                    SR    5,5
000170  41 10 3 1A8              LA    1,424(0,3)
000174  58 F0 3 1B0              L     15,432(0,3)
000178  05 EF                    BALR  14,15
00017A  D2 07 D 16F D 178        MVC   367(8,13),376(13)
000180  D2 07 D 178 3 120        MVC   376(8,13),288(3)
000186  41 E0 D 168              LA    14,360(0,13)
00018A  50 E0 D 178              ST    14,376(0,13)
00018E  41 60 D 178              LA    6,376(0,13)
000192  50 60 3 1B4              ST    6,436(0,3)
000196  96 80 3 1B4              OI    436(3),X'80'
00019A  41 10 3 1B4              LA    1,436(0,3)
00019E  58 F0 3 068              L     15,A..IBMBJDSA
0001A2  05 EF                    BALR  14,15

* STATEMENT NUMBER  35
0001A4  92 16 D 0E9              MVI   233(13),X'16'
0001A8  58 60 3 014              L     6,20(0,3)
0001AC  50 60 D 0EC              ST    6,236(0,13)

* STATEMENT NUMBER  43
0001B0  58 F0 3 188              L     15,392(0,3)
0001B4  58 60 F 000              L     6,CIAMPTR
0001B8  D2 07 6 0F0 3 242        MVC   CIAM_CB.SUBSCHEMA_
                                       CTRL.PROGRAM(8),57
                                       8(3)

* STATEMENT NUMBER  44

* STATEMENT NUMBER  45
0001BE  58 E0 3 164              L     14,356(0,3)
0001C2  50 E0 6 1C4              ST    14,CIAM_CB.SUBSCHE
                                       MA_CTRL.DML_SEQUEN
                                       CE

* STATEMENT NUMBER  46
0001C6  58 10 F 000              L     1,CIAMPTR
0001CA  D2 07 1 03C 3 24A        MVC   CIAM_CB.ID.SUB_SCH
                                       EMA(8),586(3)

* STATEMENT NUMBER  47
0001D0  50 10 3 1B8              ST    1,440(0,3)
0001D4  41 E0 1 18A              LA    14,VO..CIAM_CB.SUB
                                       SCHEMA_CTRL.IDBMSC
                                       OM_AREA.IDBMSCOM+5
                                       9
0001D8  50 E0 3 1BC              ST    14,444(0,3)
0001DC  41 E0 1 0F0              LA    14,CIAM_CB.SUBSCHE
                                       MA_CTRL
0001E0  50 E0 3 1C0              ST    14,448(0,3)
0001E4  41 E0 1 03C              LA    14,CIAM_CB.ID.SUB_
                                       SCHEMA
0001E8  50 E0 3 1C4              ST    14,452(0,3)
0001EC  96 80 3 1C4              OI    452(3),X'80'
0001F0  1B 55                    SR    5,5
0001F2  41 10 3 1B8              LA    1,440(0,3)
0001F6  58 F0 3 1C8              L     15,456(0,3)
0001FA  05 EF                    BALR  14,15

* STATEMENT NUMBER  48

* STATEMENT NUMBER  49

* STATEMENT NUMBER  50
0001FC  58 F0 3 188              L     15,392(0,3)
000200  58 E0 F 000              L     14,CIAMPTR
000204  58 10 3 168              L     1,360(0,3)
000208  50 10 E 1C4              ST    1,CIAM_CB.SUBSCHEM
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                                        A_CTRL.DML_SEQUENC
                                        E

* STATEMENT NUMBER  51
00020C  58 B0 F 000          L      11,CIAMPTR
000210  D2 0F B 044 3 252    MVC    CIAM_CB.ID.RECORD(
                                    16),594(3)

* STATEMENT NUMBER  52
000216  50 B0 3 1B8          ST     11,440(0,3)
00021A  41 A0 B 17F          LA     10,VO..CIAM_CB.SUB
                                    SCHEMA_CTRL.IDBMSC
                                    OM_AREA.IDBMSCOM+4
                                    8
00021E  50 A0 3 1BC          ST     10,444(0,3)
000222  41 A0 B 044          LA     10,CIAM_CB.ID.RECO
                                    RD
000226  50 A0 3 1C0          ST     10,448(0,3)
00022A  41 A0 B 1C8          LA     10,CIAM_CB.DIRECTO
                                    R
00022E  50 A0 3 1C4          ST     10,452(0,3)
000232  96 80 3 1C4          OI     452(3),X'80'
000236  1B 55                SR     5,5
000238  41 10 3 1B8          LA     1,440(0,3)
00023C  58 F0 3 1C8          L      15,456(0,3)
000240  05 EF                BALR   14,15

* STATEMENT NUMBER  53

* STATEMENT NUMBER  54

* STATEMENT NUMBER  55
000242  58 F0 3 188          L      15,392(0,3)
000246  58 E0 F 000          L      14,CIAMPTR
00024A  58 10 3 16C          L      1,364(0,3)
00024E  50 10 E 1C4          ST     1,CIAM_CB.SUBSCHEM
                                    A_CTRL.DML_SEQUENC
                                    E

* STATEMENT NUMBER  56
000252  58 A0 F 000          L      10,CIAMPTR
000256  D2 0F A 044 3 262    MVC    CIAM_CB.ID.RECORD(
                                    16),610(3)

* STATEMENT NUMBER  57
00025C  50 A0 3 1CC          ST     10,460(0,3)
000260  41 10 A 17F          LA     1,VO..CIAM_CB.SUBS
                                    CHEMA_CTRL.IDBMSCO
                                    M_AREA.IDBMSCOM+48
000264  50 10 3 1D0          ST     1,464(0,3)
000268  41 10 A 044          LA     1,CIAM_CB.ID.RECOR
                                    D
00026C  50 10 3 1D4          ST     1,468(0,3)
000270  41 10 A 1E0          LA     1,CIAM_CB.EVENT
000274  50 10 3 1D8          ST     1,472(0,3)
000278  96 80 3 1D8          OI     472(3),X'80'
00027C  1B 55                SR     5,5
00027E  41 10 3 1CC          LA     1,460(0,3)
000282  58 F0 3 1C8          L      15,456(0,3)
000286  05 EF                BALR   14,15

* STATEMENT NUMBER  58
* STATEMENT NUMBER  59
000288  58 F0 3 188          L      15,392(0,3)
00028C  58 E0 F 000          L      14,CIAMPTR
000290  D5 03 E 0F8 3 272    CLC    CIAM_CB.SUBSCHEMA_
                                    CTRL.ERROR_STATUS(
                                    4),626(3)
000296  47 80 2 1FE          BE     CL.4
00029A  41 10 3 1DC          LA     1,476(0,3)
00029E  58 F0 C 078          L      15,120(0,12)
0002A2  05 EF                BALR   14,15

* STATEMENT NUMBER  60
0002A4                       CL.4   EQU    *

* STATEMENT NUMBER  61
0002A4  58 F0 3 188          L      15,392(0,3)
0002A8  58 40 F 000          L      4,CIAMPTR
0002AC  58 E0 3 170          L      14,368(0,3)
0002B0  50 E0 4 1C4          ST     14,CIAM_CB.SUBSCHE
                                    MA_CTRL.DML_SEQUEN
                                    CE

* STATEMENT NUMBER  62
0002B4  58 90 F 000          L      9,CIAMPTR
0002B8  D2 0F 9 064 3 276    MVC    CIAM_CB.ID.AREA(16
                                    ),630(3)

* STATEMENT NUMBER  63
0002BE  50 90 3 1E4          ST     9,484(0,3)
0002C2  41 B0 9 178          LA     11,VO..CIAM_CB.SUB
                                    SCHEMA_CTRL.IDBMSC
                                    OM_AREA.IDBMSCOM+4
                                    1
0002C6  50 B0 3 1E8          ST     11,488(0,3)
0002CA  41 B0 9 064          LA     11,CIAM_CB.ID.AREA
0002CE  50 B0 3 1EC          ST     11,492(0,3)
0002D2  96 80 3 1EC          OI     492(3),X'80'
0002D6  1B 55                SR     5,5
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0002D8  41 10 3 1E4              LA     1,484(0,3)
0002DC  58 F0 3 1C8              L      15,456(0,3)
0002E0  05 EF                    BALR   14,15

* STATEMENT NUMBER  64

* STATEMENT NUMBER  65
0002E2  58 F0 3 188              L      15,392(0,3)
0002E6  58 80 F 000              L      8,CIAMPTR
0002EA  D5 03 8 0F8 3 272        CLC    CIAM_CB.SUBSCHEMA_
                                        CTRL.ERROR_STATUS(
                                        4),626(3)
0002F0  47 80 2 258              BE     CL.5
0002F4  41 10 3 1DC              LA     1,476(0,3)
0002F8  58 F0 C 078              L      15,120(0,12)
0002FC  05 EF                    BALR   14,15

* STATEMENT NUMBER  66
0002FE                   CL.5    EQU    *
0002FE  41 F0 D 130              LA     15,304(0,13)
000302  50 F0 3 1F4              ST     15,500(0,3)
000306  96 80 3 1F4              OI     500(3),X'80'
00030A  50 F0 D 100              ST     15,256(0,13)
00030E  18 1F                    LR     1,15
000310  92 44 D 141              MVI    321(13),X'44'
000314  41 E0 3 4C0              LA     14,1216(0,3)
000318  50 E0 D 148              ST     14,328(0,13)
00031C  41 10 3 1F0              LA     1,496(0,3)
000320  58 F0 3 078              L      15,A..IBMBSIIA
000324  05 EF                    BALR   14,15
000326  58 F0 3 188              L      15,392(0,3)
00032A  58 40 F 000              L      4,CIAMPTR
00032E  D2 07 D 158 3 128        MVC    344(8,13),296(3)
000334  41 90 4 1C8              LA     9,CIAM_CB.DIRECTOR
                                        .DIRECTORS_NAME
000338  50 90 D 158              ST     9,344(0,13)
00033C  41 E0 D 158              LA     14,344(0,13)
000340  41 F0 3 0A8              LA     15,DED..CIAM_CB.DI
                                        RECTOR.DIRECTORS_N
                                        AME
000344  58 10 D 100              L      1,256(0,13)
000348  90 EF 1 008              STM    14,15,8(1)
00034C  58 F0 3 088              L      15,A..IBMBSLIA
000350  05 EF                    BALR   14,15
000352                   CL.11   EQU    *

* STATEMENT NUMBER  67
000352  58 F0 3 188              L      15,392(0,3)
000356  58 40 F 000              L      4,CIAMPTR
00035A  58 80 3 174              L      8,372(0,3)
00035E  50 80 4 1B4              ST     8,CIAM_CB.SUBSCHEM
                                        A_CTRL.DIRECT_DBKE
                                        Y

* STATEMENT NUMBER  68

* STATEMENT NUMBER  69
000362  58 90 F 000              L      9,CIAMPTR
000366  58 E0 3 178              L      14,376(0,3)
00036A  50 E0 9 1C4              ST     14,CIAM_CB.SUBSCHE
                                        MA_CTRL.DML_SEQUEN
                                        CE
* STATEMENT NUMBER  70
00036E  58 70 F 000              L      7,CIAMPTR
000372  D2 0F 7 044 3 252        MVC    CIAM_CB.ID.RECORD(
                                        16),594(3)

* STATEMENT NUMBER  71
000378  50 70 3 1E4              ST     7,484(0,3)
00037C  41 60 7 179              LA     6,VO..CIAM_CB.SUBS
                                        CHEMA_CTRL.IDBMSCO
                                        M_AREA.IDBMSCOM+42
000380  50 60 3 1E8              ST     6,488(0,3)
000384  41 60 7 044              LA     6,CIAM_CB.ID.RECOR
                                        D
000388  50 60 3 1EC              ST     6,492(0,3)
00038C  96 80 3 1EC              OI     492(3),X'80'
000390  1B 55                    SR     5,5
000392  41 10 3 1E4              LA     1,484(0,3)
000396  58 F0 3 1C8              L      15,456(0,3)
00039A  05 EF                    BALR   14,15

* STATEMENT NUMBER  72

* STATEMENT NUMBER  73
00039C  58 F0 3 188              L      15,392(0,3)
0003A0  58 60 F 000              L      6,CIAMPTR
0003A4  D5 03 6 0F8 3 272        CLC    CIAM_CB.SUBSCHEMA_
                                        CTRL.ERROR_STATUS(
                                        4),626(3)
0003AA  47 80 2 312              BE     CL.6
0003AE  41 10 3 1DC              LA     1,476(0,3)
0003B2  58 F0 C 078              L      15,120(0,12)
0003B6  05 EF                    BALR   14,15

* STATEMENT NUMBER  74
0003B8                   CL.6    EQU    *
0003B8  41 F0 D 130              LA     15,304(0,13)
0003BC  50 F0 3 1FC              ST     15,508(0,3)
0003C0  96 80 3 1FC              OI     508(3),X'80'
0003C4  50 F0 D 100              ST     15,256(0,13)
0003C8  18 1F                    LR     1,15
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0003CA  92 20 D 141          MVI   321(13),X'20'
0003CE  41 10 3 1F8          LA    1,504(0,3)
0003D2  58 F0 3 07C          L     15,A..IBMBSIOB
0003D6  05 EF                BALR  14,15
0003D8  41 E0 3 0AA          LA    14,170(0,3)
0003DC  58 10 D 100          L     1,256(0,13)
0003E0  58 70 3 034          L     7,A..IELCGOA
0003E4  05 67                BALR  6,7
0003E6  58 40 D 138          L     4,312(0,13)
0003EA  D2 04 4 000 3 242    MVC   0(5,4),578(3)
0003F0  58 70 3 038          L     7,A..IELCGOB
0003F4  05 67                BALR  6,7
0003F6  41 E0 3 0AE          LA    14,174(0,3)
0003FA  50 E0 1 00C          ST    14,12(0,1)
0003FE  58 F0 3 09C          L     15,A..IBMBSXCD
000402  05 EF                BALR  14,15
000404  41 E0 3 0B2          LA    14,178(0,3)
000408  58 10 D 100          L     1,256(0,13)
00040C  58 70 3 034          L     7,A..IELCGOA
000410  05 67                BALR  6,7
000412  58 E0 D 138          L     14,312(0,13)
000416  D2 17 E 000 3 286    MVC   0(24,14),646(3)
00041C  58 70 3 038          L     7,A..IELCGOB
000420  05 67                BALR  6,7
000422  41 E0 3 0B6          LA    14,182(0,3)
000426  50 E0 1 00C          ST    14,12(0,1)
00042A  58 F0 3 09C          L     15,A..IBMBSXCD
00042E  05 EF                BALR  14,15
000430  41 E0 3 0BA          LA    14,186(0,3)
000434  58 10 D 100          L     1,256(0,13)
000438  58 70 3 034          L     7,A..IELCGOA
00043C  05 67                BALR  6,7
00043E  58 40 D 138          L     4,312(0,13)
000442  D2 03 4 000 3 29E    MVC   0(4,4),670(3)
000448  58 70 3 038          L     7,A..IELCGOB
00044C  05 67                BALR  6,7
00044E  58 F0 3 188          L     15,392(0,3)
000452  58 40 F 000          L     4,CIAMPTR
000456  41 E0 3 0BE          LA    14,190(0,3)
00045A  58 70 3 03C          L     7,A..IELCGOC
00045E  05 67                BALR  6,7
000460  41 E0 3 0C2          LA    14,194(0,3)
000464  58 70 3 034          L     7,A..IELCGOA
000468  05 67                BALR  6,7
00046A  58 E0 D 138          L     14,312(0,13)
00046E  D2 07 E 000 4 094    MVC   0(8,14),CIAM_CB.DB
                                   _STATISTICS.TIME_T
                                   ODAY
000474  58 70 3 038          L     7,A..IELCGOB
000478  05 67                BALR  6,7
00047A  41 E0 3 0C6          LA    14,198(0,3)
00047E  58 70 3 03C          L     7,A..IELCGOC
000482  05 67                BALR  6,7
000484  41 E0 3 0BA          LA    14,186(0,3)
000488  58 70 3 034          L     7,A..IELCGOA
00048C  05 67                BALR  6,7
00048E  58 90 D 138          L     9,312(0,13)
000492  D2 03 9 000 3 2A2    MVC   0(4,9),674(3)
000498  58 70 3 038          L     7,A..IELCGOB
00049C  05 67                BALR  6,7
00049E  58 F0 3 188          L     15,392(0,3)
0004A2  58 90 F 000          L     9,CIAMPTR
0004A6  41 E0 3 0BE          LA    14,190(0,3)
0004AA  58 70 3 03C          L     7,A..IELCGOC
0004AE  05 67                BALR  6,7
0004B0  41 E0 3 0C2          LA    14,194(0,3)
0004B4  58 70 3 034          L     7,A..IELCGOA
0004B8  05 67                BALR  6,7
0004BA  58 E0 D 138          L     14,312(0,13)
0004BE  D2 07 E 000 9 08C    MVC   0(8,14),CIAM_CB.DB
                                   _STATISTICS.DATE_T
                                   ODAY
0004C4  58 70 3 038          L     7,A..IELCGOB
0004C8  05 67                BALR  6,7
0004CA  41 E0 3 0C6          LA    14,198(0,3)
0004CE  58 70 3 03C          L     7,A..IELCGOC
0004D2  05 67                BALR  6,7
0004D4  41 E0 3 0CA          LA    14,202(0,3)
0004D8  58 70 3 034          L     7,A..IELCGOA
0004DC  05 67                BALR  6,7
0004DE  58 70 D 138          L     7,312(0,13)
0004E2  D2 06 7 000 3 2A6    MVC   0(7,7),678(3)
0004E8  58 70 3 038          L     7,A..IELCGOB
0004EC  05 67                BALR  6,7
0004EE  41 E0 3 0CE          LA    14,206(0,3)
0004F2  50 E0 1 00C          ST    14,12(0,1)
0004F6  58 F0 3 090          L     15,A..IBMBSPLC
0004FA  05 EF                BALR  14,15
0004FC  41 E0 3 0D2          LA    14,210(0,3)
000500  58 10 D 100          L     1,256(0,13)
000504  58 70 3 034          L     7,A..IELCGOA
000508  05 67                BALR  6,7
00050A  58 E0 D 138          L     14,312(0,13)
00050E  D2 2B E 000 3 2AD    MVC   0(44,14),685(3)
000514  58 70 3 038          L     7,A..IELCGOB
000518  05 67                BALR  6,7
00051A  58 F0 3 188          L     15,392(0,3)
00051E  58 70 F 000          L     7,CIAMPTR
000522  41 E0 3 0B2          LA    14,178(0,3)
000526  18 57                LR    5,7
000528  58 70 3 034          L     7,A..IELCGOA
00052C  05 67                BALR  6,7
00052E  58 70 D 138          L     7,312(0,13)
000532  D2 17 7 000 5 1C8    MVC   0(24,7),CIAM_CB.DI
                                   RECTOR.DIRECTORS_N
                                   AME
000538  58 70 3 038          L     7,A..IELCGOB
00053C  05 67                BALR  6,7
00053E  41 E0 3 0D6          LA    14,214(0,3)
000542  50 E0 1 00C          ST    14,12(0,1)
000546  58 F0 3 090          L     15,A..IBMBSPLC
00054A  05 EF                BALR  14,15
00054C  41 E0 3 0DA          LA    14,218(0,3)
000550  58 10 D 100          L     1,256(0,13)
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000554  58 70 3 034          L     7,A..IELCGOA
000558  05 67                BALR  6,7
00055A  58 E0 D 138          L     14,312(0,13)
00055E  D2 25 E 000 3 2D9    MVC   0(38,14),729(3)
000564  58 70 3 038          L     7,A..IELCGOB
000568  05 67                BALR  6,7
00056A  58 F0 3 188          L     15,392(0,3)
00056E  58 70 F 000          L     7,CIAMPTR
000572  41 E0 3 0DE          LA    14,222(0,3)
000576  18 07                LR    0,7
000578  58 70 3 03C          L     7,A..IELCGOC
00057C  05 67                BALR  6,7
00057E  18 70                LR    7,0
000580  41 E0 7 0FC          LA    14,CIAM_CB.SUBSCHE
                                   MA_CTRL.DBKEY
000584  41 F0 3 0E2          LA    15,DED..CIAM_CB.SU
                                   BSCHEMA_CTRL.DBKEY
000588  90 EF 1 000          STM   14,15,0(1)
00058C  41 E0 3 0E6          LA    14,230(0,3)
000590  58 70 3 034          L     7,A..IELCGOA
000594  05 67                BALR  6,7
000596  58 F0 3 050          L     15,A..IBMBCHXH
00059A  05 EF                BALR  14,15
00059C  58 70 3 038          L     7,A..IELCGOB
0005A0  05 67                BALR  6,7
0005A2  58 10 D 100          L     1,256(0,13)
0005A6  58 F0 3 084          L     15,A..IBMBSIOF
0005AA  05 EF                BALR  14,15

* STATEMENT NUMBER  75

* STATEMENT NUMBER  76
0005AC  58 F0 3 188          L     15,392(0,3)
0005B0  58 40 F 000          L     4,CIAMPTR
0005B4  58 80 3 17C          L     8,380(0,3)
0005B8  50 80 4 1C4          ST    8,CIAM_CB.SUBSCHEM
                                   A_CTRL.DML_SEQUENC
                                   E

* STATEMENT NUMBER  77
0005BC  58 90 F 000          L     9,CIAMPTR
0005C0  50 90 3 200          ST    9,512(0,3)
0005C4  41 70 9 151          LA    7,VO..CIAM_CB.SUBS
                                   CHEMA_CTRL.IDBMSCO
                                   M_AREA.IDBMSCOM+2
0005C8  50 70 3 204          ST    7,516(0,3)
0005CC  96 80 3 204          OI    516(3),X'80'
0005D0  1B 55                SR    5,5
0005D2  41 10 3 200          LA    1,512(0,3)
0005D6  58 F0 3 1C8          L     15,456(0,3)
0005DA  05 EF                BALR  14,15

* STATEMENT NUMBER  78
* STATEMENT NUMBER  79
0005DC  58 F0 3 188          L     15,392(0,3)
0005E0  58 70 F 000          L     7,CIAMPTR
0005E4  D5 03 7 0F8 3 272    CLC   CIAM_CB.SUBSCHEMA_
                                   CTRL.ERROR_STATUS(
                                   4),626(3)
0005EA  47 80 2 552          BE    CL.7
0005EE  41 10 3 1DC          LA    1,476(0,3)
0005F2  58 F0 C 078          L     15,120(0,12)
0005F6  05 EF                BALR  14,15

* STATEMENT NUMBER  80
0005F8                 CL.7  EQU   *
0005F8  18 0D                LR    0,13
0005FA  58 D0 D 004          L     13,4(0,13)
0005FE  58 E0 D 00C          L     14,12(0,13)
000602  98 2C D 01C          LM    2,12,28(13)
000606  05 1E                BALR  1,14
* END PROCEDURE

* STATEMENT NUMBER  4
* ON UNIT BLOCK
000608  90 EC D 00C          STM   14,12,12(13)
00060C  47 F0 F 010          B     16(0,15)
000610  00000120            DC    F'288'
000614  00000000            DC    A(STATIC CSECT)
000618  58 30 F 00C          L     3,12(0,15)
00061C  58 10 D 04C          L     1,76(0,13)
000620  58 00 F 008          L     0,8(0,15)
000624  1E 01                ALR   0,1
000626  55 00 C 00C          CL    0,12(0,12)
00062A  47 D0 F 02C          BNH   44(0,15)
00062E  58 F0 C 074          L     15,116(0,12)
000632  05 EF                BALR  14,15
000634  58 E0 D 048          L     14,72(0,13)
000638  18 F0                LR    15,0
00063A  90 E0 1 048          STM   14,0,72(1)
00063E  50 D0 1 004          ST    13,4(0,1)
000642  41 D1 0 000          LA    13,0(1,0)
000646  50 50 D 058          ST    5,88(0,13)
00064A  92 8C D 000          MVI   0(13),X'8C'
00064E  92 20 D 001          MVI   1(13),X'20'
000652  D2 03 D 054 3 158    MVC   84(4,13),344(3)
000658  05 20                BALR  2,0

* PROCEDURE BASE

* STATEMENT NUMBER  5
00065A  58 F0 3 188          L     15,392(0,3)
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00065E  58 40 F 000          L     4,CIAMPTR
000662  D5 03 4 0F8 3 272    CLC   CIAM_CB.SUBSCHEMA_
                                   CTRL.ERROR_STATUS(
                                   4),626(3)
000668  47 80 2 47C          BE    CL.8

* STATEMENT NUMBER  6
00066C  D2 15 D 0D2 3 2FF    MVC   210(22,13),767(3)
000672  D2 07 D 0E8 4 0F0    MVC   232(8,13),CIAM_CB.
                                   SUBSCHEMA_CTRL.PRO
                                   GRAM
000678  D2 07 D 0F0 3 130    MVC   240(8,13),304(3)
00067E  41 E0 D 0D2          LA    14,210(0,13)
000682  50 E0 D 0F0          ST    14,240(0,13)
000686  41 90 D 0F0          LA    9,240(0,13)
00068A  50 90 3 208          ST    9,520(0,3)
00068E  96 80 3 208          OI    520(3),X'80'
000692  41 10 3 208          LA    1,520(0,3)
000696  58 F0 3 068          L     15,A..IBMBJDSA
00069A  05 EF                BALR  14,15

* STATEMENT NUMBER  7
00069C  58 F0 3 188          L     15,392(0,3)
0006A0  58 90 F 000          L     9,CIAMPTR
0006A4  D2 15 D 0D2 3 315    MVC   210(22,13),789(3)
0006AA  D2 07 D 0E8 9 076    MVC   232(8,13),CIAM_CB.
                                   COMMUNCIATIONS_PAT
                                   H.USER_ID
0006B0  D2 07 D 0F0 3 130    MVC   240(8,13),304(3)
0006B6  41 E0 D 0D2          LA    14,210(0,13)
0006BA  50 E0 D 0F0          ST    14,240(0,13)
0006BE  41 80 D 0F0          LA    8,240(0,13)
0006C2  50 80 3 208          ST    8,520(0,3)
0006C6  96 80 3 208          OI    520(3),X'80'
0006CA  41 10 3 208          LA    1,520(0,3)
0006CE  58 F0 3 068          L     15,A..IBMBJDSA
0006D2  05 EF                BALR  14,15

* STATEMENT NUMBER  8
0006D4  58 F0 3 188          L     15,392(0,3)
0006D8  58 80 F 000          L     8,CIAMPTR
0006DC  D2 07 D 0E0 3 118    MVC   224(8,13),280(3)
0006E2  41 E0 8 07E          LA    14,CIAM_CB.COMMUNC
                                   IATIONS_PATH.USER_
                                   PORT
0006E6  50 E0 D 0E0          ST    14,224(0,13)
0006EA  41 E0 D 0E0          LA    14,224(0,13)
0006EE  41 00 D 118          LA    0,280(0,13)
0006F2  41 F0 3 0EC          LA    15,236(0,3)
0006F6  41 10 3 0EE          LA    1,238(0,3)
0006FA  90 E1 D 0D0          STM   14,1,208(13)
0006FE  96 80 D 0DC          OI    220(13),X'80'
000702  41 10 D 0D0          LA    1,208(0,13)
000706  58 F0 3 054          L     15,A..IBMBCPBX
00070A  05 EF                BALR  14,15
00070C  48 60 D 118          LH    6,280(0,13)
000710  4E 60 D 090          CVD   6,WKSP.2+24
000714  D2 03 D 088 D 094    MVC   WKSP.2+16(4),WKSP.
                                   2+28
00071A  41 10 D 0D8          LA    1,216(0,13)
00071E  D2 08 D 0D0 3 32B    MVC   208(9,13),811(3)
000724  DF 07 D 0D1 D 088    EDMK  209(8,13),WKSP.2+1
                                   6
00072A  47 B0 2 0DA          BNM   CL.16
00072E  06 10                BCTR  1,0
000730  92 60 1 000          MVI   0(1),X'60'
000734                       CL.16 EQU   *
000734  D2 15 D 0E8 3 334    MVC   232(22,13),820(3)
00073A  D2 08 D 0FE D 0D0    MVC   254(9,13),208(13)
000740  D2 07 D 0D0 3 138    MVC   208(8,13),312(3)
000746  41 E0 D 0E8          LA    14,232(0,13)
00074A  50 E0 D 0D0          ST    14,208(0,13)
00074E  41 70 D 0D0          LA    7,208(0,13)
000752  50 70 3 208          ST    7,520(0,3)
000756  96 80 3 208          OI    520(3),X'80'
00075A  41 10 3 208          LA    1,520(0,3)
00075E  58 F0 3 0C8          L     15,A..IBMBJDSA
000762  05 EF                BALR  14,15

* STATEMENT NUMBER  9
000764  58 F0 3 188          L     15,392(0,3)
000768  58 70 F 000          L     7,CIAMPTR
00076C  D2 15 D 0D2 3 34A    MVC   210(22,13),842(3)
000772  D2 07 D 0E8 7 07F    MVC   232(8,13),CIAM_CB.
                                   COMMUNCIATIONS_PAT
                                   H.DBMS_ID
000778  D2 07 D 0F0 3 130    MVC   240(8,13),304(3)
00077E  41 E0 D 0D2          LA    14,210(0,13)
000782  50 E0 D 0F0          ST    14,240(0,13)
000786  41 60 D 0F0          LA    6,240(0,13)
00078A  50 60 3 208          ST    6,520(0,3)
00078E  96 80 3 208          OI    520(3),X'80'
000792  41 10 3 208          LA    1,520(0,3)
000796  58 F0 3 068          L     15,A..IBMBJDSA
00079A  05 EF                BALR  14,15

* STATEMENT NUMBER  10
00079C  58 F0 3 188          L     15,392(0,3)
0007A0  58 60 F 000          L     6,CIAMPTR
0007A4  D2 07 D 0E0 3 118    MVC   224(8,13),280(3)
0007AA  41 E0 6 087          LA    14,CIAM_CB.COMMUNC
                                   IATIONS_PATH.DBMS_
                                   PORT
0007AE  50 E0 D 0E0          ST    14,224(0,13)
0007B2  41 E0 D 0E0          LA    14,224(0,13)
0007B6  41 00 D 118          LA    0,280(0,13)
0007BA  41 F0 3 0EC          LA    15,236(0,3)
0007BE  41 10 3 0EE          LA    1,238(0,3)
0007C2  90 E1 D 0D0          STM   14,1,208(13)
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0007C6  96 80 D 0DC              OI    220(13),X'80'
0007CA  41 10 D 0D0              LA    1,208(0,13)
0007CE  58 F0 3 054              L     15,A..IBMBCPBX
0007D2  05 EF                    BALR  14,15
0007D4  48 F0 D 118              LH    15,280(0,13)
0007D8  4E F0 D 090              CVD   15,WKSP.2+24
0007DC  D2 03 D 088 D 094        MVC   WKSP.2+16(4),WKSP.
                                       2+28
0007E2  41 10 D 0D8              LA    1,216(0,13)
0007E6  D2 08 D 0D0 3 32B        MVC   208(9,13),811(3)
0007EC  DF 07 D 0D1 D 088        EDMK  209(8,13),WKSP.2+1
                                       6
0007F2  47 B0 2 1A2              BNM   CL.17
0007F6  06 10                    BCTR  1,0
0007F8  92 60 1 000              MVI   0(1),X'60'
0007FC                     CL.17 EQU   *
0007FC  D2 15 D 0E8 3 360        MVC   232(22,13),864(3)
000802  D2 08 D 0FE D 0D0        MVC   254(9,13),208(13)
000808  D2 07 D 0D0 3 138        MVC   208(8,13),312(3)
00080E  41 E0 D 0E8              LA    14,232(0,13)
000812  50 E0 D 0D0              ST    14,208(0,13)
000816  41 F0 D 0D0              LA    15,208(0,13)
00081A  50 F0 3 208              ST    15,520(0,3)
00081E  96 80 3 208              OI    520(3),X'80'
000822  41 10 3 208              LA    1,520(0,3)
000826  58 F0 3 068              L     15,A..IBMBJDSA
00082A  05 EF                    BALR  14,15

* STATEMENT NUMBER  11
00082C  58 F0 3 188              L     15,392(0,3)
000830  58 E0 F 000              L     14,CIAMPTR
000834  48 10 E 088              LH    1,CIAM_CB.COMMUNCI
                                       ATIONS_PATH.MESSAG
                                       E_ID
000838  4E 10 D 090              CVD   1,WKSP.2+24
00083C  D2 03 D 088 D 094        MVC   WKSP.2+16(4),WKSP.
                                       2+28
000842  41 10 D 0D8              LA    1,216(0,13)
000846  D2 08 D 0D0 3 32B        MVC   208(9,13),811(3)
00084C  DF 07 D 0D1 D 088        EDMK  209(8,13),WKSP.2+1
                                       6
000852  47 B0 2 202              BNM   CL.18
000856  06 10                    BCTR  1,0
000858  92 60 1 000              MVI   0(1),X'60'
00085C                     CL.18 EQU   *
00085C  D2 15 D 0D9 3 376        MVC   217(22,13),886(3)
000862  D2 08 D 0EF D 0D0        MVC   239(9,13),208(13)
000868  D2 07 D 0F8 3 138        MVC   248(8,13),312(3)
00086E  41 10 D 0D9              LA    1,217(0,13)
000872  50 10 D 0F8              ST    1,248(0,13)
000876  41 10 D 0F8              LA    1,248(0,13)
00087A  50 10 3 208              ST    1,520(0,3)
00087E  96 80 3 208              OI    520(3),X'80'
000882  41 10 3 208              LA    1,520(0,3)
000886  58 F0 3 068              L     15,A..IBMBJDSA
00088A  05 EF                    BALR  14,15

* STATEMENT NUMBER  12
00088C  58 F0 3 188              L     15,392(0,3)
000890  58 E0 F 000              L     14,CIAMPTR
000894  58 10 E 0FC              L     1,CIAM_CB.SJBSCHEM
                                       A_CTRL.DBKEY
000898  4E 10 D 090              CVD   1,WKSP.2+24
00089C  D2 05 D 088 D 092        MVC   WKSP.2+16(6),WKSP.
                                       2+26
0008A2  41 10 D 0DF              LA    1,223(0,13)
0008A6  D2 0D D 0D2 3 0FE        MVC   210(14,13),254(3)
0008AC  DF 0B D 0D4 D 088        EDMK  212(12,13),WKSP.2+
                                       16
0008B2  47 B0 2 262              BNM   CL.19
0008B6  06 10                    BCTR  1,0
0008B8  92 60 1 000              MVI   0(1),X'60'
0008BC                     CL.19 EQU   *
0008BC  D2 15 D 0E0 3 38C        MVC   224(22,13),908(3)
0008C2  D2 0D D 0F6 D 0D2        MVC   246(14,13),210(13)
0008C8  D2 07 D 104 3 140        MVC   260(8,13),320(3)
0008CE  41 10 D 0E0              LA    1,224(0,13)
0008D2  50 10 D 104              ST    1,260(0,13)
0008D6  41 10 D 104              LA    1,260(0,13)
0008DA  50 10 3 208              ST    1,520(0,3)
0008DE  96 80 3 208              OI    520(3),X'80'
0008E2  41 10 3 208              LA    1,520(0,3)
0008E6  58 F0 3 068              L     15,A..IBMBJDSA
0008EA  05 EF                    BALR  14,15

* STATEMENT NUMBER  13
0008EC  58 F0 3 188              L     15,392(0,3)
0008F0  58 E0 F 000              L     14,CIAMPTR
0008F4  D2 15 D 0D2 3 3A2        MVC   210(22,13),930(3)
0008FA  D2 03 D 0E8 E 0F8        MVC   232(4,13),CIAM_CB.
                                       SUBSCHEMA_CTRL.ERR
                                       OR_STATUS
000900  D2 07 D 0EC 3 148        MVC   236(8,13),328(3)
000906  41 10 D 0D2              LA    1,210(0,13)
00090A  50 10 D 0EC              ST    1,236(0,13)
00090E  41 10 D 0EC              LA    1,236(0,13)
000912  50 10 3 208              ST    1,520(0,3)
000916  96 80 3 208              OI    520(3),X'80'
00091A  41 10 3 208              LA    1,520(0,3)
00091E  58 F0 3 068              L     15,A..IBMBJDSA
000922  05 EF                    BALR  14,15

* STATEMENT NUMBER  14
000924  58 F0 3 188              L     15,392(0,3)
000928  58 E0 F 000              L     14,CIAMPTR
00092C  D2 15 D 0D2 3 3B8        MVC   210(22,13),952(3)
000932  D2 0F D 0E8 E 130        MVC   232(16,13),CIAM_CB
                                       .SUBSCHEMA_CTRL.ER
                                       ROR_RECORD
000938  D2 07 D 0F8 3 150        MVC   248(8,13),336(3)
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00093E  41 10 D 0D2          LA     1,210(0,13)
000942  50 10 D 0F8          ST     1,248(0,13)
000946  41 10 D 0F8          LA     1,248(0,13)
00094A  50 10 3 208          ST     1,520(0,3)
00094E  96 80 3 208          OI     520(3),X'80'
000952  41 10 3 208          LA     1,520(0,3)
000956  58 F0 3 068          L      15,A..IBMBJDSA
00095A  05 EF                BALR   14,15

* STATEMENT NUMBER  15
00095C  58 F0 3 188          L      15,392(0,3)
000960  58 E0 F 000          L      14,CIAMPTR
000964  D2 15 D 0D2 3 3CE    MVC    210(22,13),974(3)
00096A  D2 0F D 0E8 E 120    MVC    232(16,13),CIAM_CB
                                    .SUBSCHEMA_CTRL.ER
                                    ROR_SET
000970  D2 07 D 0F8 3 150    MVC    248(8,13),336(3)
000976  41 10 D 0D2          LA     1,210(0,13)
00097A  50 10 D 0F8          ST     1,248(0,13)
00097E  41 10 D 0F8          LA     1,248(0,13)
000982  50 10 3 208          ST     1,520(0,3)
000986  96 80 3 208          OI     520(3),X'80'
00098A  41 10 3 208          LA     1,520(0,3)
00098E  58 F0 3 068          L      15,A..IBMBJDSA
000992  05 EF                BALR   14,15

* STATEMENT NUMBER  16
000994  58 F0 3 188          L      15,392(0,3)
000998  58 E0 F 000          L      14,CIAMPTR
00099C  D2 15 D 0D2 3 3E4    MVC    210(22,13),996(3)
0009A2  D2 0F D 0E8 E 140    MVC    232(16,13),CIAM_CB
                                    .SUBSCHEMA_CTRL.ER
                                    ROR_AREA
0009A8  D2 07 D 0F8 3 150    MVC    248(8,13),336(3)
0009AE  41 10 D 0D2          LA     1,210(0,13)
0009B2  50 10 D 0F8          ST     1,248(0,13)
0009B6  41 10 D 0F8          LA     1,248(0,13)
0009BA  50 10 3 208          ST     1,520(0,3)
0009BE  96 80 3 208          OI     520(3),X'80'
0009C2  41 10 3 208          LA     1,520(0,3)
0009C6  58 F0 3 068          L      15,A..IBMBJDSA
0009CA  05 EF                BALR   14,15

* STATEMENT NUMBER  17
0009CC  58 F0 3 188          L      15,392(0,3)
0009D0  58 E0 F 000          L      14,CIAMPTR
0009D4  D2 15 D 0D2 3 3FA    MVC    210(22,13),1018(3)
0009DA  D2 0F D 0E8 E 100    MVC    232(16,13),CIAM_CB
                                    .SUBSCHEMA_CTRL.RE
                                    CORD_NAME
0009E0  D2 07 D 0F8 3 150    MVC    248(8,13),336(3)
0009E6  41 10 D 0D2          LA     1,210(0,13)
0009EA  50 10 D 0F8          ST     1,248(0,13)
0009EE  41 10 D 0F8          LA     1,248(0,13)
0009F2  50 10 3 208          ST     1,520(0,3)
0009F6  96 80 3 208          OI     520(3),X'80'
0009FA  41 10 3 208          LA     1,520(0,3)
0009FE  58 F0 3 068          L      15,A..IBMBJDSA
000A02  05 EF                BALR   14,15

* STATEMENT NUMBER  18
000A04  58 F0 3 188          L      15,392(0,3)
000A08  58 E0 F 000          L      14,CIAMPTR
000A0C  D2 15 D 0D2 3 410    MVC    210(22,13),1040(3)
000A12  D2 0F D 0E8 E 110    MVC    232(16,13),CIAM_CB
                                    .SUBSCHEMA_CTRL.AR
                                    EA_NAME
000A18  D2 07 D 0F8 3 150    MVC    248(8,13),336(3)
000A1E  41 10 D 0D2          LA     1,210(0,13)
000A22  50 10 D 0F8          ST     1,248(0,13)
000A26  41 10 D 0F8          LA     1,248(0,13)
000A2A  50 10 3 208          ST     1,520(0,3)
000A2E  96 80 3 208          OI     520(3),X'80'
000A32  41 10 3 208          LA     1,520(0,3)
000A36  58 F0 3 068          L      15,A..IBMBJDSA
000A3A  05 EF                BALR   14,15

* STATEMENT NUMBER  19
000A3C  58 F0 3 188          L      15,392(0,3)
000A40  58 E0 F 000          L      14,CIAMPTR
000A44  58 10 E 1C4          L      1,CIAM_CB.SUBSCHEM
                                    A_CTRL.DML_SEQUENC
                                    E
000A48  4E 10 D 090          CVD    1,WKSP.2+24
000A4C  D2 03 D 088 D 094    MVC    WKSP.2+16(4),WKSP.
                                    2+28
000A52  41 10 D 0D8          LA     1,216(0,13)
000A56  D2 08 D 0D0 3 32B    MVC    208(9,13),811(3)
000A5C  DF 07 D 0D1 D 088    EDMK   209(8,13),WKSP.2+1
                                    6
000A62  47 B0 2 412          BNM    CL.20
000A66  06 10                BCTR   1,0
000A68  92 60 1 000          MVI    0(1),X'60'
000A6C                 CL.20 EQU    *
000A6C  D2 15 D 0D9 3 426    MVC    217(22,13),1062(3)
000A72  D2 08 D 0EF D 0D0    MVC    239(9,13),208(13)
000A78  D2 07 D 0F8 3 138    MVC    248(8,13),312(3)
000A7E  41 10 D 0D9          LA     1,217(0,13)
000A82  50 10 D 0F8          ST     1,248(0,13)
000A86  41 10 D 0F8          LA     1,248(0,13)
000A8A  50 10 3 208          ST     1,520(0,3)
000A8E  96 80 3 208          OI     520(3),X'80'
000A92  41 10 3 208          LA     1,520(0,3)
000A96  58 F0 3 068          L      15,A..IBMBJDSA
000A9A  05 EF                BALR   14,15

* STATEMENT NUMBER  20
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                                                                    * STATEMENT NUMBER  21
000A9C  58 F0 3 188             L       15,392(0,3)
000AA0  58 E0 F 000             L       14,CIAMPTR
000AA4  58 10 3 180             L       1,384(0,3)
000AA8  50 10 E 1C4             ST      1,CIAM_CB.SUBSCHEM
                                        A_CTRL.DML_SEQUENC
                                        E

                                                                    * STATEMENT NUMBER  22
000AAC  58 B0 F 000             L       11,CIAMPTR
000AB0  50 B0 3 200             ST      11,512(0,3)
000AB4  41 A0 B 192             LA      10,VO..CIAM_CB.SUB
                                        SCHEMA_CTRL.IDBMSC
                                        OM_AREA.IDBMSCOM+6
                                        7
000AB8  50 A0 3 204             ST      10,516(0,3)
000ABC  96 80 3 204             OI      516(3),X'80'
000AC0  1B 55                   SR      5,5
000AC2  41 10 3 200             LA      1,512(0,3)
000AC6  58 F0 3 1C8             L       15,456(0,3)
000ACA  05 EF                   BALR    14,15

                                                                    * STATEMENT NUMBER  23

                                                                    * STATEMENT NUMBER  24
000ACC  41 10 3 20C             LA      1,524(0,3)
000AD0  58 F0 C 078             L       15,120(0,12)
000AD4  05 EF                   BALR    14,15

                                                                    * STATEMENT NUMBER  25

                                                                    * STATEMENT NUMBER  26
000AD6                  CL.8    EQU     *
000AD6  18 0D                   LR      0,13
000AD8  58 D0 D 004             L       13,4(0,13)
000ADC  58 E0 D 00C             L       14,12(0,13)
000AE0  98 2C D 01C             LM      2,12,28(13)
000AE4  05 1E                   BALR    1,14

                                                                    * ON UNIT BLOCK END
000AE6  07 07                   NOPR    7

                                                                    * STATEMENT NUMBER  35

                                                                    * ON UNIT BLOCK
000AE8  90 EC D 00C             STM     14,12,12(13)
000AEC  47 F0 F 010             B       16(0,15)
000AF0  00000110                DC      F'272'
000AF4  00000000                DC      A(STATIC CSECT)
000AF8  58 30 F 00C             L       3,12(0,15)
000AFC  58 10 D 04C             L       1,76(0,13)
000B00  58 00 F 008             L       0,8(0,15)
000B04  1E 01                   ALR     0,1
000B06  55 00 C 00C             CL      0,12(0,12)
000B0A  47 D0 F 02C             BNH     44(0,15)
000B0E  58 F0 C 074             L       15,116(0,12)
000B12  05 EF                   BALR    14,15
000B14  58 E0 D 048             L       14,72(0,13)
000B18  18 F0                   LR      15,0
000B1A  90 E0 1 048             STM     14,0,72(1)
000B1E  50 D0 1 004             ST      13,4(0,1)
000B22  41 D1 0 000             LA      13,0(1,0)
000B26  50 50 D 058             ST      5,88(0,13)
000B2A  92 8C D 000             MVI     0(13),X'8C'
000B2E  92 20 D 001             MVI     1(13),X'20'
000B32  D2 03 D 054 3 158       MVC     84(4,13),344(3)
000B38  05 20                   BALR    2,0

                                * PROCEDURE BASE

                                * STATEMENT NUMBER  36
000B3A  41 40 D 0E8             LA      4,232(0,13)
000B3E  50 40 3 214             ST      4,532(0,3)
000B42  50 40 D 0D0             ST      4,208(0,13)
000B46  18 14                   LR      1,4
000B48  92 20 D 0F9             MVI     249(13),X'20'
000B4C  41 10 3 210             LA      1,528(0,3)
000B50  58 F0 3 080             L       15,A..IBMBSIOE
000B54  05 EF                   BALR    14,15
000B56  41 E0 3 0F2             LA      14,242(0,3)
000B5A  58 10 D 0D0             L       1,208(0,13)
000B5E  58 70 3 034             L       7,A..IELCGOA
000B62  05 67                   BALR    6,7
000B64  58 80 D 0F0             L       8,240(0,13)
000B68  D2 21 8 000 3 43C       MVC     0(34,8),1084(3)
000B6E  58 70 3 038             L       7,A..IELCGOB
000B72  05 67                   BALR    6,7
000B74  41 E0 3 0F6             LA      14,246(0,3)
000B78  58 70 3 034             L       7,A..IELCGOA
000B7C  05 67                   BALR    6,7
000B7E  58 E0 D 0F0             L       14,240(0,13)
000B82  D2 1E E 000 3 45E       MVC     0(31,14),1118(3)
000B88  58 70 3 038             L       7,A..IELCGOB
000B8C  05 67                   BALR    6,7
000B8E  41 E0 3 0D6             LA      14,214(0,3)
000B92  50 E0 1 00C             ST      14,12(0,1)
000B96  58 F0 3 090             L       15,A..IBMBSPLC
000B9A  05 EF                   BALR    14,15
000B9C  41 E0 3 0FA             LA      14,250(0,3)
000BA0  58 10 D 0D0             L       1,208(0,13)
000BA4  58 70 3 034             L       7,A..IELCGOA
000BA8  05 67                   BALR    6,7
000BAA  58 80 D 0F0             L       8,240(0,13)
000BAE  D2 24 8 000 3 47D       MVC     0(37,8),1149(3)
000BB4  58 70 3 038             L       7,A..IELCGOB
```

```
000BB8  05 67                    BALR  6,7                 * END PROGRAM
000BBA  41 E0 3 0B2              LA    14,178(0,3)
000BBE  58 70 3 034              L     7,A..IELCGOA
000BC2  05 67                    BALR  6,7
000BC4  58 E0 D 0F0              L     14,240(0,13)
000BC8  D2 17 E 000 3 4A2        MVC   0(24,14),1186(3)
000BCE  58 70 3 038              L     7,A..IELCGOB
000BD2  05 67                    BALR  6,7
000BD4  58 10 D 0D0              L     1,208(0,13)
000BD8  58 F0 3 084              L     15,A..IBMBSIOT
000BDC  05 EF                    BALR  14,15

* STATEMENT NUMBER  37

* STATEMENT NUMBER  38
000BDE  58 F0 3 188              L     15,392(0,3)
000BE2  58 40 F 000              L     4,CIAMPTR
000BE6  58 80 3 184              L     8,388(0,3)
000BEA  50 80 4 1C4              ST    8,CIAM_CB.SUBSCHEM
                                       A_CTRL.DML_SEQUENC
                                       E

* STATEMENT NUMBER  39
000BEE  58 90 F 000              L     9,CIAMPTR
000BF2  50 90 3 200              ST    9,512(0,3)
000BF6  41 70 9 192              LA    7,VO..CIAM_CB.SUBS
                                       CHEMA_CTRL.IDBMSCO
                                       M_AREA.IDBMSCOM+67
000BFA  50 70 3 204              ST    7,516(0,3)
000BFE  96 80 3 204              OI    516(3),X'80'
000C02  1B 55                    SR    5,5
000C04  41 10 3 200              LA    1,512(0,3)
000C08  58 F0 3 1C8              L     15,456(0,3)
000C0C  05 EF                    BALR  14,15

* STATEMENT NUMBER  40

* STATEMENT NUMBER  41
000C0E  41 10 3 20C              LA    1,524(0,3)
000C12  58 F0 C 078              L     15,120(0,12)
000C16  05 EF                    BALR  14,15

* STATEMENT NUMBER  42
000C18  18 0D                    LR    0,13
000C1A  58 D0 D 004              L     13,4(0,13)
000C1E  58 E0 D 00C              L     14,12(0,13)
000C22  98 2C D 01C              LM    2,12,28(13)
000C26  05 1E                    BALR  1,14

* ON UNIT BLOCK END
```

```
COMPILER DIAGNOSTIC MESSAGES

ERROR ID L   STMT    MESSAGE DESCRIPTION


COMPILER INFORMATORY MESSAGES

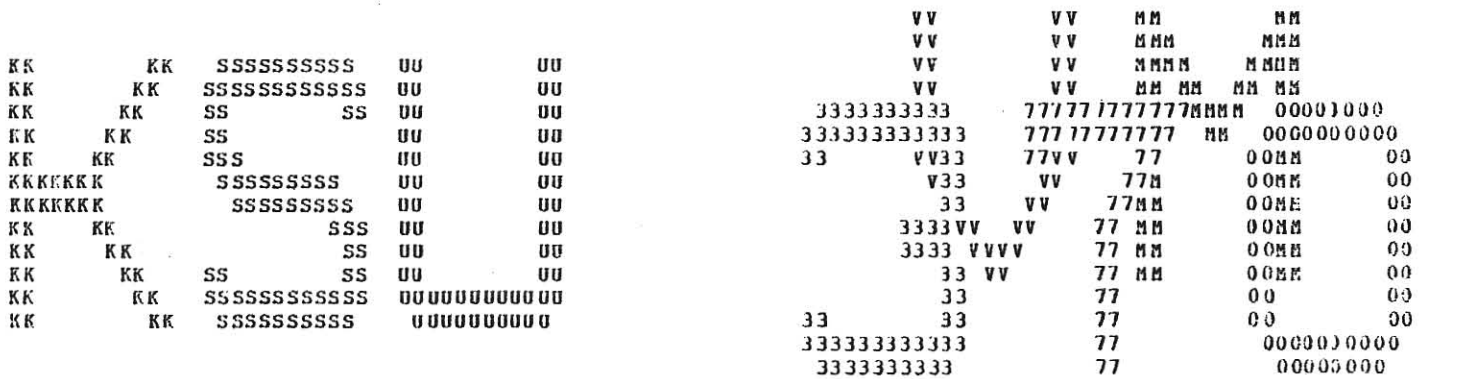
IEL0906I I   8, 10    DATA CONVERSION WILL BE DONE BY SUBROUTINE CALL.

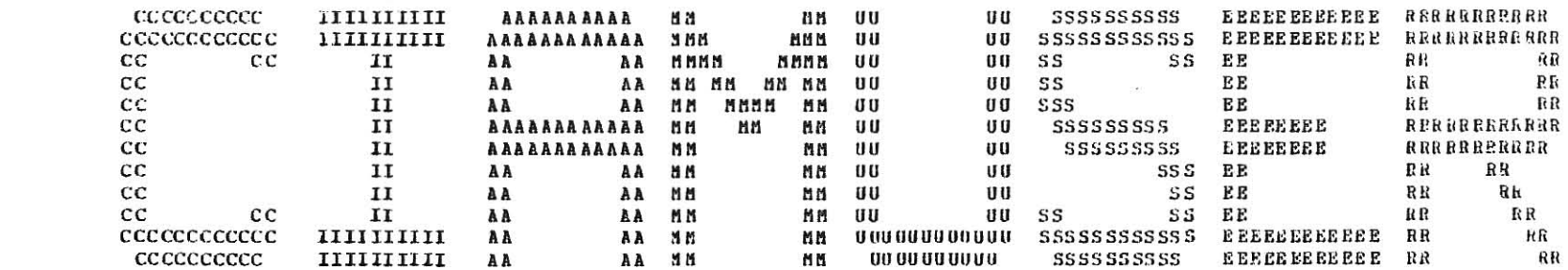
END OF COMPILER DIAGNOSTIC MESSAGES

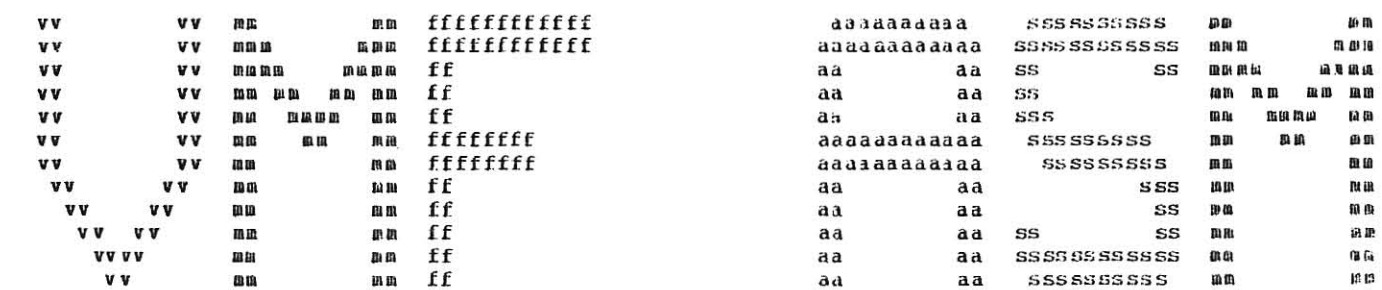
COMPILE TIME    0.14 MINS        SPILL FILE:     0 RECORDS, SIZE  3491
```

Appendix C

IEAVMCF - COMMUNICATIONS HANDLER USER MACHINE


KK KK SSSSSSSSSS UU UU
KK KK SSSSSSSSSSS UU UU
KK KK SS SS UU UU
KK KK SS UU UU
KK KK SSS UU UU
KKKKKKK SSSSSSSSS UU UU
KKKKKKK SSSSSSSSS UU UU
KK KK SSS UU UU
KK KK SS UU UU
KK KK SS SS UU UU
KK KK SSSSSSSSSSS UUUUUUUUUUU
KK KK SSSSSSSSSS UUUUUUUUUU
VV VV MM MM
VV VV MMM MMM
VV VV MMMM MMMM
VV VV MM MM MM MM
3333333333 77777777777MMMM 00000000
333333333333 777 77777777 MM 00000000000
33 VV33 77VV 77 00MM 00
V33 VV 77M 00MM 00
33 VV 77MM 00ME 00
3333VV VV 77 MM 00MM 00
3333 VVVV 77 MM 00MM 00
33 VV 77 MM 00MM 00
33 77 00 00
33 33 77 00 00
333333333333 77 00000000
3333333333 77 00000000


CCCCCCCCCC IIIIIIIIII AAAAAAAAAA MM MM UU UU SSSSSSSSSS EEEEEEEEEEEE RRRRRRRRRR
CCCCCCCCCCCC IIIIIIIIII AAAAAAAAAAAA MMM MMM UU UU SSSSSSSSSSSS EEEEEEEEEEEE RRRRRRRRRRRR
CC CC II AA AA MMMM MMMM UU UU SS SS EE RR RR
CC II AA AA MM MM MM MM UU UU SS EE RR RR
CC II AA AA MM MMMM MM UU UU SSS EE RR RR
CC II AAAAAAAAAAAA MM MM MM UU UU SSSSSSSSS EEEEEEEE RRRRRRRRRRR
CC II AAAAAAAAAAAA MM MM UU UU SSSSSSSSS EEEEEEEE RRRRRRRRRRR
CC II AA AA MM MM UU UU SSS EE RR RR
CC II AA AA MM MM UU UU SS EE RR RR
CC CC II AA AA MM MM UU UU SS SS EE RR RR
CCCCCCCCCCCC IIIIIIIIII AA AA MM MM UUUUUUUUUUUU SSSSSSSSSSSS EEEEEEEEEEEE RR RR
CCCCCCCCCC IIIIIIIIII AA AA MM MM UUUUUUUUUU SSSSSSSSSS EEEEEEEEEEEE RR RR


VV VV MM MM ffffffffffff
VV VV MMM MMM ffffffffffff
VV VV MMMM MMMM ff
VV VV MM MM MM MM ff
VV VV MM MMMM MM ff
VV VV MM MM MM ffffffff
VV VV MM MM ffffffff
VV VV MM MM ff
VV VV MM MM ff
VV VV MM MM ff
VVVV MM MM ff
VV MM MM ff
aaaaaaaaaa SSSSSSSSSS MM MM
aaaaaaaaaaaa SSSSSSSSSSSS MMM MMM
aa aa SS SS MMMM MMMM
aa aa SS MM MM MM MM
aa aa SSS MM MMM MM
aaaaaaaaaaaa SSSSSSSSS MM MM MM
aaaaaaaaaaaa SSSSSSSSS MM MM
aa aa SSS MM MM
aa aa SS MM MM
aa aa SS SS MM MM
aa aa SSSSSSSSSSS MM MM
aa aa SSSSSSSSS MM MM

```
TEXT MACS USLIB1 DMSSP CMSLIB OSMACRO CIAM
TEXT AUXCIAM
```

```
*
*         USLIB1    MACLIB   Z2 CMS29D 10/17/81  10:00
*         DMSSP     MACLIB   S2 VMSP90 04/21/81  00:30
*         CMSLIB    MACLIB   S2 VMSP90 04/21/81  01:23
*         OSMACRO   MACLIB   S2 VMSP90 12/09/78  05:02
*         CIAM      MACLIB   D1 6N9192 90/17/81  10:05
*         CIAMUSER  ASSEMBLE D1 6N9192 90/21/81  16:06
```

ASM 0201 20.32 10/25/81

SYMBOL	TYPE	ID	ADDR	LENGTH	LDID
CIAMUSER	SD	0001	020000	000F2C	
CIAHDML	LD		020000		0001
VMCPINIT	ER	0002			
CIAMTERM	LD		020244		0001
VMCFTERM	ER	0003			
CIAMTOUT	LD		0203E8		0001
CIAM$DA	LD		0204F8		0001
CIAM$DAE	LD		020650		0001
IEAVMCF	ER	0004			
CIAMUEND	LD		020F1E		0001

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81
020000                              2 CIAMUSER START X'20000'                                                  00003000


                                    4 *.                                                                       00005000
                                    5 * REG USAGE:                                                             00006000
                                    6 *                                                                        00007000
                                    7 * R0   ** LINKAGE **              R8   ** SCRATCH **                     00008000
                                    8 * R1   ** LINKAGE **              R9   *RESERVED* BASE REG.              00009000
                                    9 * R2   BASE ADDR OF CIAM_CB       R10  *RESERVED* BASE REG.              00010000
                                   10 * R3   ** SCRATCH **              R11  *RESERVED* BASE REG.              00011000
                                   11 * R4   ** SCRATCH **              R12  PROGRAM BASE REG                  00012000
                                   12 * R5   ** SCRATCH **              R13  SAVE AREA CHAINING                00013000
                                   13 * R6   OFFSET FR CIAM_CB FOR ARGS R14  ** LINKAGE **                     00014000
                                   14 * R7   COUNT OF ARGUEMENTS        R15  ** LINKAGE **                     00015000


                                   16 *                                                                        00017000
                                   17 * OS/VMCF CONVENTIONS:                                                   00018000
                                   18 *                                                                        00019000
                                   19 * SVC CODE = 211                                                         00020000
                                   20 *                                                                        00021000
                                   21 * IMMEDIATE REQUESTS:              NON-IMMEDIATE REQUESTS:            00022000
                                   22 *                                                                        00023000
                                   23 * AUTH,UNAUTH,RECEIVE,CANCEL,      SEND,SEND/RECV,SENDX               00024000
                                   24 * REPLY,IDENTIFY,REJECT,                                                 00025000
                                   25 * UNSTACK                         INVALID REQUESTS:                  00026000
                                   26 *                                                                        00027000
                                   27 *                                 QUIESCE,RESUME                     00028000
                                   28 *                                                                        00029000
                                   29 * IMMEDIATE REQUESTS ARE HANDLED DIRECTLY IN CODE VIA SVC211, THE       00030000
                                   30 * NON-IMMEDIATE REQUESTS ARE HANDLED VIA SUBROUTINE SENDRECV (THE       00031000
                                   31 * ONLY NON-IMMEDIATE OS/VMCF FUNCTION CIAMUSER USES).                  00032000
                                   32 *                                                                        00033000
                                   33 *.                                                                       00034000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

                                     36 *.                                                                    00038000
                                     37 * UPON ENTRY: R1     :: ADDRESS OF PARM LIST,                         00039000
                                     38 * PARM LIST,  0(R1)  :: -> CIAM_CB                                    00040000
                                     39 *             4(R1)  :: -> IDBMSCOM ( NN ) /* NN IS THE FUNCTION CODE */ 00041000
                                     40 *             8(R1)  :: -> ARGUEMENT NUMBER 3                         00042000
                                     41 *                    ::                                               00043000
                                     42 *.      (NN*4)-4(R1) :: -> ARGUEMENT NUMBER NN                        00044000

                                     44 CIAMDML  PROLOGUE OPT=ENTRY,AD=CIAMUSER,SA=SAVEAREA                   00046000
                                     45+         ENTRY CIAMDML              NOTE PROLOGUE ENTRY OPTION        00034000

020000                               47+CIAMDML  DS    0H                   DEFINE LABEL,MAKE SURE ALIGNED    00051000
                          20000      48+         USING *,15                 FOR TEMPORARY ADDRESSIBILITY      00052000
020000 47F0 F01C    0001C            49+         B     28(,15)              BRANCH AROUND ...                 00018000
020004 09C3C9C1D4C4D4D3              50+         DC    AL1(9),CL9'CIAMDML'        ID                     00020000
02000E F1F061F2F561F8F1              51+         DC    CL14'10/25/81 20.32'       DATE & TIME STAMP      00021000
02001C 90EC D00C    0000C            52+         STM   14,12,12(13)         SAVE STANDARD REGISTER SET        00071000
020020 50D0 F2F8    202F8            53+         ST    13,SAVEAREA+4        SAVE OLD POINTER IN NEW AREA      00119000 330
020024 18CD                          54+         LR    12,13                MOVE OLD POINTER OVER             00124000
020026 41D0 F2F4    202F4            55+         LA    13,SAVEAREA          ADDRESS OF NEW SAVE AREA          00125000 330
02002A 50DC 0008    00008            56+         ST    13,8(12)             SAVE NEW POINTER IN OLD AREA      00126000
02002E 0700                          57+         CNOP  0,4                                                    00019000
020030 47F0 F038    20038            58+         B     *+8                  SKIP AROUND ADDRESS CONSTANT      00020000
020034 00020000                      59+         DC    A(CIAMUSER)          ADDRESS CONSTANT FOR AD=PARAMETER 00021000 2
020038 58C0 F034    20034            60+         L     12,*-4               LOAD ADCON INTO RIGHT REGISTER    00022000
                                     61+         DROP  15                   CLEAN UP USING SITUATION          00029000
                          20000      62+         USING CIAMUSER,12                                            00030000 2


02003C 5820 1000    00000            65          L     R2,0(,R1)            ADDRESS OF CONTROL BLOCK.         00048000
                          00000      66          USING CIAMCB,R2            ADDRESSABILITY TO CONTROL BLOCK.  00049000 1051
020040 5020 C4F8    204F8            67          ST    R2,SAVECB@           SAVE CIAM_CB ADDR.                00050000 464

020044 4140 00F0    000F0            69          LA    R4,#SSCOFF           SUBSCHEMA_CTRL OFFSET.            00052000 1107
020048 4160 000C    0000C            70          LA    R6,#ARGSOFF          OFFSET FROM CIAM_CB FOR ARGLIST(1). 00053000 1064
02004C 4170 0001    00001            71          LA    R7,1                 1ST ARG.                          00054000
020050 5046 2000    00000            72          ST    R4,0(R6,R2)          STORE FIRST ARG.                  00055000

020054 945F C5FA    205FA            74          NI    CIAMFLG1,X'FF'-ONLY2-EOLIST  INITIALIZE MY FLAGS.      00057000 543 544 546
020058 9180 1004    00004            75          TM    4(R1),BIT0           WAS THERE ONLY 2 ARGS THIS DML??  00058000 535
02005C 47E0 C064    20064            76          BNO   JOIN1               -> NOPE ... SKIP.                 00059000 80

020060 9680 C5FA    205FA            78          OI    CIAMFLG1,ONLY2       NOTE ONLY 2 ARGS.                 00061000 543 544

020064                               80 JOIN1    DS    0H                                                     00063000
020064 5840 1004    00004            81          L     R4,4(,R1)            ADDRESS OF IDBMSCOM (NN).         00064000

020068 1884                          83          LR    R8,R4                COPY THE ADDR OF IDBMSCOM(NN).    00066000
02006A 4150 2150    00150            84          LA    R5,CCBICOMA          ADDR OF CIAM_CB.IBDMSCOM (1).     00067000 1120
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

02006E 1B85                         85          SR    R8,R5          R8 :: DML FUNCTION CODE - 1.          00068000
020070 4180 8001     00001          86          LA    R8,1(,R8)      DML CODE VALUE.                       00069000
020074 5080 C5E8     205E8          87          ST    R8,CIAM$DML    CURRENT DML CODE.                     00070000 528

020078 1B42                         89          SR    R4,R2          CONVERT ADDR TO OFFSET.               00072000
02007A 4160 6004     00004          90          LA    R6,4(,R6)      INCREMENT ARGLIST INDEX.              00073000
02007E 4170 7001     00001          91          LA    R7,1(,R7)      INCREMENT ARG COUNT.                  00074000
020082 5046 2000     00000          92          ST    R4,0(R6,R2)    STORE 2ND ARG.                        00075000


02008E 9180 C5FA     205FA          94          TM    CIAMFLG1,ONLY2 ONLY 2 ARGS THIS DML??                00077000 543 544
02008A 4710 C0C4     200C4          95          BO    JOIN3          -> YES.                               00078000 116

02008E 4110 1008     00008          97          LA    R1,8(,R1)      3RD ARG ... 8 OFF OF PLIST.           00080000

020092 9180 1000     00000          99 LOOP1    TM    0(R1),BIT0     HIGH ORDER BIT ON??                   00082000 535
02009E 47E0 C0A2     200A2         100          BNO   JOIN2          -> NO SKIP SETTING FLAG.              00083000 104
02009A 947F 1000     00000         101          NI    0(R1),X'FF'-BIT0 CLEAR COMPILER GENERATED FLAG,     00084000 535
02009E 9620 C5FA     205FA         102          OI    CIAMFLG1,EOLIST SET MY FLAG FOR END-OF-LIST.         00085000 543 546

0200A2 5840 1000     00000         104 JOIN2   L     R4,0(,R1)      ADDR OF ARG(NN).                      00087000

0200A6 1B42                        106          SR    R4,R2          CONVERT ADDR(ARG(NN)) TO OFFSET.      00089000
0200A8 4160 6004     00004         107          LA    R6,4(,R6)      PLACE TO STORE ARGS.                  00090000
0200AC 5046 2000     00000         108          ST    R4,0(R6,R2)    AND STORE IT.                         00091000
0200B0 4170 7001     00001         109          LA    R7,1(,R7)      INCR ARG COUNT FOR ARG(N).            00092000


0200B4 9120 C5FA     205FA         111          TM    CIAMFLG1,EOLIST HAVE I HIT END OF LIST YET??         00094000 543 546
0200B8 4710 C0C4     200C4         112          BO    JOIN3          -> YES                                00095000 116
0200BC 4110 1004     00004         113          LA    R1,4(,R1)      POINT TO NEXT ARG.                    00096000
0200C0 47F0 C092     20092         114          B     LOOP1          -> GO MAP NEXT ARG.                   00097000 99


0200C4 5070 2008     00008         116 JOIN3   ST    R7,CCB#ARGS    STORE FINAL ARG COUNT.                00099000 1003

0200C8 4110 C510     20510         118          LA    R1,CIAMVMCP    ADDRESS OF PARMLIST.                  00101000 473
                           00000   119          USING VMCPARM,R1     ADDRESSABILITY TO PARMLIST.           00102000 1134

0200CC D503 C5E8 C5EC 205E8 205EC  121          CLC   CIAM$DML,BINDRU BIND RUN-UNIT DML?                   00104000 528 529
0200D2 4780 C13A     2013A         122          BE    CIAMINIT       -> YES, INITILIZE MACHINE.            00105000 158

0200D6 9104 C5FA     205FA         124          TM    CIAMFLG1,ABEND HAS AN ABEND BEEN ISSUED??            00107000 543 549
0200DA 4710 CBEC     20BEC         125          BO    ERR015         -> YES, DON'T DO DML, LOG MSG.        00108000 824


0200DE 9140 C5FA     205FA         127 DODML   TM    CIAMFLG1,CIAMAUTH HAS MACHINE BEEN AUTH'ED??         00110000 543 545
0200E2 47E0 C6BA     206BA         128          BNO   ERR002         -> NO, DON'T ALLOW THAT.              00111000 584

0200E6 D203 1020 C5E8 00020 205E8  130          MVC   VMCPUSE(4),CIAM$DML COPY CURRENT DML CODE.           00113000 1165 528

                                   132 * INCREMENT MESSAGE ID NUMBER.                                       00115000

0200EC 4840 1004     00004         134          LH    R4,VMCPUMID    GET CURRENT MESSAGE NUMBER.           00117000 1157
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

0200F0 4A40 CF20       20F20          135          AH    R4,=H'1'          INCREMENT BY 1.                  00118000
0200F4 4940 CF22       20F22          136          CH    R4,=X'8FFF'       IS MESSAGE NUMBER GETTING TO BIG??  00119000
0200F8 4740 C100       20100          137          BL    *+8               -> NO, DON'T RESET.              00120000
0200FC 4140 0004       00004          138          LA    R4,4              YES, RESET TO 4.                 00121000
020100 4040 1004       00004          139          STH   R4,VMCPUMID       STORE NEW MESSAGE NUMBER.        00122000 1157
020104 4040 2088       00088          140          STH   R4,CCBMSGID       ...                              00123000 1082

020108 45E0 C33C       2033C          142          BAL   R14,SENDRECV      DO A OS/VMCF SEND/RECV TO THE DBMS.  00125000 333
02010C 4780 C122       20122          143          BZ    TESTFIN           VMCF DIDN'T DETECT AN ERROR.     00126000 150

020110 4EF0 C600       20600          145          CVD   R15,DB            VMCF ERROR, COMPLAIN.            00128000 553
020114 F337 20F8 C600  00F8 20600     146          UNPK  CCBEDML(4),DB     PUT IN ERROR_STATUS LOC.         00129000 1112 553
02011A 96F0 20FB       00FB           147          OI    CCBEDML+3,X'F0'   TAKE AWAY SIGN.                 00130000 1112
02011E 92E5 20F8       00F8           148          MVI   CCBEDML,C'V'      FLAG AS VMCF ERROR.              00131000 1112

020122 D503 C5E8 C5F0  205E8 205F0    150 TESTFIN  CLC   CIAM$DML,FINISH   FINISH DML??                     00133000 528 530
020128 4780 C284       20284          151          BE    INTRNXIT          -> YES, SIGNOFF.                 00134000 281

02012C D503 C5E8 C5F4  205E8 205F4    153          CLC   CIAM$DML,RBACKDML  ROLLBACK DML??                  00136000 528 531
020132 4780 C4D0       204D0          154          BE    ROLLBACK          -> YES, ROLLBACK.                00137000 449

020136 47F0 C2E2       202E2          156          B     RETURN            -> GO BACK TO USER.              00139000 324
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

02013A                              158 CIAMINIT DS    0H                                                    00142000

02013A 9200 C5FA      205FA         160          MVI   CIAMFLG1,X'00'     CLEAR FLAGS.                       00144000 543

                                    162 * INITILIZE THE DB_STATISTICS PART OF CIAM_CB.                       00146000

02013E 4140 C608      20608         164          LA    R4,DATETIME        PUT TIME AND DATE AT THE RIGHT PLACE 00148000 554
                                    165          DIAG  R4,R15,X'0C'       GET TOD & DATE.                    00149000
020142 834F000C                     166+         DC    0H'0',X'83',AL.4(R4,R15),Y(X'0C')                     00005000
020146 D20F 208C C608 0008C 20608   167          MVC   CCBDATE(16),DATETIME MOVE INTO CIAM_CB.                 00150000 1087 554

                                    169 * INITILIZE THE OTHER FIELDS IN DB_STATISTICS TO ZERO.               00152000

02014C D753 209C 209C 0009C 0009C   171          XC    CCBDBSZ,CCBDBSZ    ZERO THE FIELDS.                   00154000 1089 1089

                                    173 * INITILIZE ABEND ADDRESS, AFTER SAVING FM ABEND ADDRESS.            00156000

                            00000   175          USING NUCON,R0           ADDRESSABILITY TO LOW STORAGE.     00158000 1227
020152 5860 0E0C      00E0C         176          L     R6,FMABNADD        GET FM ABEND ADDRESS.              00159000 1852
020156 5060 C500      20500         177          ST    R6,CIAM$FM         SAVE FM ABEND ADDRESS.             00160000 466
02015A 4160 C244      20244         178          LA    R6,CIAMTERM        GET CIAMTERM ADDRESS.              00161000 263
                                    179          DMSKEY NUCLEUS           ALLOW WRITE TO NUCLEUS AREA.       00162000
02015E 0ACB                         180+         SVC   203                                                   00016000
020160 0108                         181+         DC    H'264'                 'DMSKEY' CODE                  00017000
020162 9610 05E5      005E5         182          OI    KSUFLAGS,FMRUN     MAKE DMSABN THINK THIS IS FM.      00163000 1599 1603
020166 5060 0E0C      00E0C         183          ST    R6,FMABNADD        STORE CIAMTERM ADDRESS.            00164000 1852
                                    184          DMSKEY RESET             DISALLOW WRITE TO NUCLEUS AREA.    00165000
02016A 0ACB                         185+         SVC   203                                                   00016000
02016C 0208                         186+         DC    H'520'                 'DMSKEY' CODE                  00017000

                                    188 * FILL IN THE USER_ID (IE, THE USER MACHINE VIRTUAL ID).             00167000

02016E 5850 0468      00468         190          L     R5,AKSUSECT        ADDRESS OF MUCH KSU-INFO.          00169000 1443
                            00000   191          USING KSUSECT,R5         ADDRESSABILITY TO KSU INFO.        00170000 1197
020172 D207 2076 5010 00076 00010   192          MVC   CCBUVMID,KSUUSER   MOVE USERID INTO CIAM_CB.USER_ID.  00171000 1078 1200
                                    193          DROP  R0,R5              BYE ADDRESSABILITY.                00172000

                                    195 * INITIALIZE OS/VMCF                                                00174000

020178 B206 C648      20648         197          SCKC  FOREVER            WAIT ALMOST FOREVER.               00176000 559
02017C B600 C638      20638         198          STCTL C0,C0,SAVECR0      GET CONTROL REG. ZERO              00177000 557
020180 D207 C640 C638 20640 20638   199          MVC   RESTCR0,SAVECR0    SAVE COPY OF CR0.                  00178000 558 557
020186 9608 C63A      2063A         200          OI    SAVECR0+2,X'08'    ALLOW CLOCK INTERUPTS.             00179000 557
02018A B700 C638      20638         201          LCTL  C0,C0,SAVECR0      UPDATE CONTROL REG. ZERO           00180000 557
                                    202          CALL  VMCFINIT           ENTRY IN OS/VMCF TO INITILIZE VMCF. 00181000
02018E 0700                         203+         CNOP  0,4                                                   00300000
020190 47F0 C198      20198         204+         B     *+8                      BRANCH AROUND VCON             00320000
020194 00000000                     205+IHB0010B DC     V(VMCFINIT)              ENTRY POINT ADDRESS          00340000 -
020198 58F0 C194      20194         206+         L     15,IHB0010B              LOAD 15 WITH ENTRY ADR       00440000 205
02019C 05EF                         207+         BALR  14,15                    BRANCH TO ENTRY POINT        00460000
02019E 94EF C5FA      205FA         208          NI    CIAMFLG1,X'FF'-XITED  MAKE CIAMTERM BE CALLED.       00182000 543 547

                                    210 * CREATE COMMUNICATION PATH TO DBMS MACHINE FROM USER MACHINE.       00184000

0201A2 9140 C5FA      205FA         212          TM    CIAMFLG1,CIAMAUTH  HAS MACHINE ALREADY BEEN AUTH'ED??  00186000 543 545
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

0201A6 4710 C650       20650          213          BO     ERR001              -> YES, DON'T ALLOW AUTH TWICE.      00187000 566


0201AA D207 C540 207F 20540 0007F    215          MVC    AUTHVMID,CCBDVMID   FILL IN DBMS VMID.                   00189000 482 1080
0201B0 D207 C568 207F 20568 0007F    216          MVC    PREQVMID,CCBDVMID    ...                                 00190000 498 1080

0201B6 4110 C538       20538          218          LA     R1,AUTHPARM         AUTHORIZE SPECIFIC PLIST.            00192000 475
0201BA 0AD3                           219          SVC    211                 ISSUE VMCF SVC.                      00193000
0201BC 123F                           220          LTR    R3,R15              TEST RETURN CODE FROM SVC.           00194000
0201BE 4770 C738       20738          221          BNZ    ERR003              -> ON BAD RC.                        00195000 605

0201C2 D203 C5E0 2000 205E0 00000    223          MVC    PORTRCB(4),CCBLEN   COPY LEN OF CONTROL BLOCK.            00197000 524 1058
0201C8 4110 C560       20560          224          LA     R1,PORTREQ          REQUEST PORT (SIGNON REQUEST).       00198000 491
0201CC 45E0 C33C       2033C          225          BAL    R14,SENDRECV        SEND/RECV THE SIGNON MSG.            00199000 333
0201D0 4770 C77A       2077A          226          BNZ    ERR004              BAD STATUS FROM SEND/RECEIVE.        00200000 620


0201D4 BF4F C5E4       205E4          228          ICM    R4,B'1111',PORTRCB+4  GET RETURNED PORT.                  00202000 524
0201D8 4740 C77A       2077A          229          BM     ERR004                -> ON BAD PORT ID.                   00203000 620

0201DC BE41 2087       00087          231          STCM   R4,B'0001',CCBDPORT STORE PORTID IN CIAM_CB.             00205000 1081
0201E0 D700 207E 207E 0007E 0007E    232          XC     CCBUPORT,CCBUPORT   USER PORTID ALWAYS 0.                00206000 1079 1079

0201E6 4110 C538       20538          234          LA     R1,AUTHPARM         UN-AUTH TO PORT-AUTHORITY.           00208000 475
0201EA 9201 1000       00000          235          MVI    0(R1),VMCPUAUT       ...                                 00209000 1144
0201EE 0AD3                           236          SVC    211                 ISSUE VMCF SVC.                      00210000
0201F0 123F                           237          LTR    R3,R15              GOOD RC FROM UNAUTH?                 00211000
0201F2 4770 C7F0       207F0          238          BNZ    ERR005              -> HEAVENS, BAD RC FROM UNAUTH.      00212000 640

0201F6 9280 1000       00000          240          MVI    0(R1),VMCPAUTS      AUTH SPECIFIC TO DBMS.PORT( NN ).    00214000 1139
0201FA BE41 1007       00007          241          STCM   R4,B'0001',7(R1)                                        00215000
0201FE 0AD3                           242          SVC    211                 ISSUE VMCF SVC.                      00216000
020200 123F                           243          LTR    R3,R15              ALL WELL??                           00217000
020202 4770 C840       20840          244          BNZ    ERR006              -> NO, EXPLAIN.                      00218000 655

020206 9640 C5FA       205FA          246          OI     CIAMFLG1,CIAMAUTH   SHOW AUTH'ED STATUS.                  00220000 543 545
02020A D727 C510 C510 20510 20510    247          XC     CIAMVMCP,CIAMVMCP   CLEAR VMCPARM.                       00221000 473 473
020210 4110 C510       20510          248          LA     R1,CIAMVMCP         ADDRESS IT.                          00222000 473
020214 D201 1002 CF24 00002 20F24    249          MVC    VMCPFUNC,=AL2(VMCPSENR) SEND/RECV PROTOCOL.              00223000 1142 1146
02021A D200 1006 207E 00006 0007E    250          MVC    VMCPSRCT,CCBUPORT   USER'S PORT.                         00224000 1158 1079
020220 D200 1007 2087 00007 00087    251          MVC    VMCPSNKT,CCBDPORT   DATABASE PORT.                       00225000 1159 1081
020226 D207 1008 207F 00008 0007F    252          MVC    VMCPUSER,CCBDVMID   DATABASE VIRTUAL MACHINE ID.          00226000 1160 1080
02022C 5020 1010       00010          253          ST     R2,VMCPVADA         CIAM_CB ADDR. (MESSAGE TO DATABASE)  00227000 1161
020230 5020 1018       00018          254          ST     R2,VMCPVADB         CIAM_CB ADDR. (REPLY FROM DATABASE)  00228000 1163
020234 D203 1014 2000 00014 00000    255          MVC    VMCPLENA,CCBLEN     LENGTH OF THE CIAM_CB                00229000 1162 1058
02023A D203 101C 2000 0001C 00000    256          MVC    VMCPLENB,CCBLEN     LENGTH OF THE CIAM_CB                00230000 1164 1058


020240 47F0 C0DE       200DE          258          B      DODML               -> BACK TO DML EXECTION.             00232000 127
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

                                  260 CIAMTERM PROLOGUE OPT=ENTRY,AD=CIAMUSER,SA=SAVEAREA                    00235000
                                  261+         ENTRY CIAMTERM            NOTE PROLOGUE ENTRY OPTION          00034000

020244                            263+CIAMTERM DS    0H                  DEFINE LABEL,MAKE SURE ALIGNED      00051000
                            20244 264+         USING *,15               FOR TEMPORARY ADDRESSIBILITY        00052000
020244 47F0 F01C      0001C       265+         B     28(,15)            BRANCH AROUND ...                   00018000
020248 09C3C9C1D4E3C5D9           266+         DC    AL1(9),CL9'CIAMTERM'        ID                      00020000
020252 F1F061F2F561F8F1           267+         DC    CL14'10/25/81 20.32'        DATE & TIME STAMP       00021000
020260 90EC D00C      0000C       268+         STM   14,12,12(13)       SAVE STANDARD REGISTER SET          00071000
020264 50D0 F0B4      202F8       269+         ST    13,SAVEAREA+4      SAVE OLD POINTER IN NEW AREA        00119000 330
020268 18CD                       270+         LR    12,13              MOVE OLD POINTER OVER               00124000
02026A 41D0 F0B0      202F4       271+         LA    13,SAVEAREA        ADDRESS OF NEW SAVE AREA            00125000 330
02026E 50DC 0008      00008       272+         ST    13,8(12)           SAVE NEW POINTER IN OLD AREA        00126000
020272 0700                       273+         CNOP  0,4                                                    00019000
020274 47F0 F038      2027C       274+         B     *+8                SKIP AROUND ADDRESS CONSTANT        00020000
020278 00020000                   275+         DC    A(CIAMUSER)        ADDRESS CONSTANT FOR AD=PARAMETER   00021000 2
02027C 58C0 F034      20278       276+         L     12,*-4             LOAD ADCON INTO RIGHT REGISTER      00022000
                                  277+         DROP  15                 CLEAN UP USING SITUATION            00029000
                            20000 278+         USING CIAMUSER,12                                            00030000 2

020280 45E0 C9B2      209B2       280          BAL   R14,MSG010         -> WRITE ENTRY MESSAGE.             00236000 724
020284                            281 INTRNXIT DS    0H                 INTERNAL CIAMTERM ENTRANCE.         00237000
020284 5820 C4F8      204F8       282          L     R2,SAVECB@         MAKE SURE ADDRESSABILITY TO CIAM_CB 00238000 464
                            00000 283          USING CIAMCB,R2          ...                               00239000 1051
020288 9110 C5FA      205FA       284          TM    CIAMFLG1,XITED     HAS CIAMTERM ALREADY BEEN CALLED??  00240000 543 547
02028C 4710 C2D2      202D2       285          BO    RETXIT             -> YES, SKIP SHUTDOWN CODE.         00241000 318

                                  287 * RESTORE FM ABEND ADDRESS IN NUCON.                                   00243000

                            00000 289          USING NUCON,R0                                               00245000 1227
020290 5860 C500      20500       290          L     R6,CIAM$FM         GET SAVE FM ABEND ADDRESS.          00246000 466
                                  291          DMSKEY NUCLEUS           ALLOW WRITE TO NUCLEUS AREA.      00247000
020294 0ACB                       292+         SVC   203                                                    00016000
020296 0108                       293+         DC    H'264'                 'DMSKEY' CODE                 00017000
020298 94EF 05E5      005E5       294          NI    KSUFLAGS,X'FF'-FMRUN  MAKE DMSABN NO LONGER THINK THIS  00248000 1599 1603
                                  295 *                                    IS FM.                          00249000
02029C 5060 0E0C      00E0C       296          ST    R6,FMABNADD        RESTORE FM ABEND ADDRESS.           00250000 1852
                                  297          DMSKEY RESET             DISALLOW WRITE ACCESS.            00251000
0202A0 0ACB                       298+         SVC   203                                                    00016000
0202A2 0208                       299+         DC    H'520'                 'DMSKEY' CODE                 00017000
                                  300          DROP  R0                                                     00252000

0202A4 9140 C5FA      205FA       302          TM    CIAMFLG1,CIAMAUTH  IS MACHINE AUTH'ED??                00254000 543 545
0202A8 47E0 C2B8      202B8       303          BNO   TERM               -> NO, JUST TERMINATE.              00255000 311

0202AC 4110 C510      20510       305          LA    R1,CIAMVMCP        GET ADDRESSABILITY TO CIAMVMCP.     00257000 473
                            00000 306          USING VMCPARM,R1         ADDRESS IT IN ASSEMBLER.            00258000 1134
0202B0 9201 1002      00002       307          MVI   VMCPFUNC,VMCPUAUT  UNAUTH FUNCTION CODE.               00259000 1142 1144
0202B4 0AD3                       308          SVC   211                ISSUE VMCF SVC.                     00260000
                                  309 TERM     CALL  VMCFTERM           ENTRY IN OS/VMCF TO TERMINATE VMCF. 00261000
0202B6 0700                       310+         CNOP  0,4                                                    00300000
0202B8 47F0 C2C0      202C0       311+TERM     B     *+8                          BRANCH AROUND VCON      00320000
0202BC 00000000                   312+IHB0019B DC    V(VMCFTERM)                  ENTRY POINT ADDRESS     00340000 -
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

0202C0 58F0 C2BC      202BC         313+          L     15,IHB0019B                    LOAD 15 WITH ENTRY ADR 00440000 312
0202C4 05EF                         314+          BALR  14,15                          BRANCH TO ENTRY POINT  00460000
0202C6 B700 C640      20640         315           LCTL  C0,C0,RESTCR0      RESTORE CONTROL REG. ZERO           00262000 558
0202CA 94BF C5FA      205FA         316           NI    CIAMFLG1,X'FF'-CIAMAUTH  SHOW UNAUTH STATUS.        00263000 543 545
0202CE 9610 C5FA      205FA         317           OI    CIAMFLG1,XITED     SHOW THAT WE HAVE CLEANED UP.    00264000 543 547
0202D2 9108 C5FA      205FA         318 RETXIT    TM    CIAMFLG1,TIMEOUT   DID I COME HERE FROM CIAMTOUT??   00265000 543 548
0202D6 4710 C45C      2045C         319           BO    TOUTRET            -> YES, GO BACK THERE.           00266000 427
0202DA 9104 C5FA      205FA         320           TM    CIAMFLG1,ABEND     DID I COME HERE FROM ROLLBACK??  00267000 543 549
0202DE 4710 C4F0      204F0         321           BO    ABNRET             -> YES, GO BACK TO ABEN CODE.    00268000 458
                                    322 RETURN    EPILOGUE SA=SAVEAREA                                      00269000

0202E2                              324+RETURN    DS    0H                 DEFINE LABEL                     00023000
0202E2 58DD 0004      00004         325+          L     13,4(13)           RESTORE PREVIOUS SAVE AREA POINT 00054000
0202E6 58ED 000C      0000C         326+          L     14,12(13)          RELOAD REG 14                    00045000
0202EA 980C D014      00014         327+          LM    0,12,20(13)        RELOAD REST OF REGS              00048000
0202EE 92FF D00C      0000C         328+          MVI   12(13),X'FF'       SHOW WE HAVE RETURNED            00069000
0202F2 07FE                         329+          BR    14                 RETURN NORMALLY TO CALLER        00073000
0202F4 0000000000000000             330+SAVEAREA  DC    18F'0'             SAVE AREA,NAMED BY MACRO         00080000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81
02033C                             333 SENDRECV DS    0H                                                    00272000
02033C B206 C648       20648       334          SCKC  FOREVER          MAKE CLOCK WAIT FOREVER.              00273000 559
020340 94F7 C5FA       205FA       335          NI    CIAMFLG1,X'FF'-TIMEOUT  SHOW THAT WE HAVE NOT TIMED OUT. 00274000 543 548
020344 B205 C630       20630       336          STCK  TMPTOD           GET CURRENT TIME OF DAY.              00275000 556
020348 D207 C628 C630  20628 20630 337          MVC   SAVETOD,TMPTOD   SAVE OLD TIME OF DAY.                00276000 555 556
02034E 58F0 C630       20630       338          L     R15,TMPTOD       ...                                   00277000 556
020352 5AF0 2004       00004       339          A     R15,CCBTOL       ADD IN TIME LIMIT PER DML.            00278000 1059
020356 50F0 C630       20630       340          ST    R15,TMPTOD       STORE TIMEOUT TIME.                   00279000 556
02035A B206 C630       20630       341          SCKC  TMPTOD           AND SET NEW TIME OF DAY.              00280000 556
02035E D227 C588 1000  20588 00000 342          MVC   UNSTKCB,0(R1)    COPY SEND/RECV REQUEST CONTROL BLOCK  00281000 506
020364 D703 C4FC C4FC  204FC 204FC 343          XC    CIAM$ECB,CIAM$ECB MAKE SURE ECB IS CLEARED.            00282000 465 465
02036A 0AD3                        344          SVC   211              ISSUE VMCF SVC.                       00283000
02036C 12FF                        345          LTR   R15,R15          BAD RC FROM SVC?                      00284000
02036E 4770 C3E2       203E2       346          BNZ   NOWAIT          -> SKIP WAIT ON BAD RC.               00285000 388
020372 8000 C5F8       205F8       347          SSM   DISABLE          DON'T DISTURB.                        00286000 532
020376 9140 C4FC       204FC       348          TM    CIAM$ECB,BIT1    IS POST BIT ON??                      00287000 465 536
02037A 4710 C390       20390       349          BO    POSTED           -> YES, DON'T WAIT.                   00288000 357
02037E 8000 C5F9       205F9       350          SSM   ENABLE           OK, GO WAIT.                          00289000 533
                                   351          WAIT  1,ECB=CIAM$ECB   WAIT FOR OS/VMCF COMPLETION.          00290000
020382 4110 C4FC       204FC       352+         LA    1,CIAM$ECB                  LOAD PARAMETER REG 1      00100000 465
020386 4100 0001       00001       353+         LA    0,1(0,0)                    LOAD PARAMETER REG 0      00280000
02038A 0A01                        354+         SVC   1                           LINK TO WAIT ROUTINE      00280000

02038C 47F0 C394       20394       356          B     *+8              INTERUPTS ALLREADY ENABLED.           00292000
020390                             357 POSTED   DS    0H                                                    00293000
020390 8000 C5F9       205F9       358          SSM   ENABLE           ENABLE INTERUPTS.                     00294000 533
020394 9200 C4FC       204FC       359          MVI   CIAM$ECB,X'00'   CLEAR WAIT/POST BITS.                 00295000 465
020398 BFFF C4FC       204FC       360          ICM   R15,B'1111',CIAM$ECB GET RC OUT OF ECB.                  00296000 465
02039C 4770 C3E2       203E2       361          BNZ   NOWAIT           -> BACK TO CALLER.                    00297000 388

0203A0 4110 C588       20588       363          LA    R1,UNSTKCB       GET ADDRESS OF UNSTACK CONTROL BLOCK  00299000 506
0203A4 D201 1002 CF26  00002 20F26 364          MVC   VMCPFUNC,=AL2(VMCPUNST)  UNSTACK FUNCTION CODE.       00300000 1142 1155
0203AA D207 1010 C5D8  00010 205D8 365          MVC   VMCPVADA(8),HDRINFO     COPY HEADER ADDR AND LEN.   00301000 1161 522
0203B0 0AD3                        366          SVC   211              ISSUE VMCF SVC.                       00302000

0203B2 123F                        368          LTR   R3,R15           BEST BE ZERO RC FROM UNSTACK          00304000
0203B4 4770 C8A2       208A2       369          BNZ   ERR007          -> DIE                                00305000 672

0203B8 4140 C5B0       205B0       371          LA    R4,CIAMHDR       GET ADDR OF EXTERNAL INTERUPT INFO.   00307000 521
                                   372          USING VMCMHDR,R4       ADDRESS OF NEW PARM INFO.             00308000 1169
0203BC D501 1004 4004  00004 00004 373          CLC   VMCPUMID,VMCMUMID BEST BE THE SAME.                    00309000 1157 1184
0203C2 4770 C8E6       208E6       374          BNE   ERR008           -> DIE ALSO.                          00310000 688

0203C6 9540 4000       00000       376          CLI   VMCMSTAT,VMCMRJCT DID DBMS REJECT MY SEND??            00312000 1173 1175
0203CA 4780 C96E       2096E       377          BE    ERR009           -> YES, INFORM USER.                  00313000 709

0203CE 9580 4000       00000       379          CLI   VMCMSTAT,VMCMRESP WAS THIS A FINAL RESPONCE INTERUPT??  00315000 1173 1174
0203D2 4770 CB6E       20B6E       380          BNE   ERR013           -> NO, THATS NOT GOOD!!               00316000 795

                                   382          DROP  R1,R4                                                  00318000

0203D6 9500 C4FC       204FC       384          CLI   CIAM$ECB,X'00'   IS ECB CLEARED??                      00320000 465
0203DA 4770 CBB6       20BB6       385          BNE   ERR014           -> SHOULD BE, DIE.                    00321000 810

0203DE BFFF C4FC       204FC       387          ICM   R15,B'1111',CIAM$ECB GET RC FROM ECB.                  00323000 465
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

0203E2                              388 NOWAIT   DS    0H                                                  00324000
0203E2 B206 C648          20648     389          SCKC  FOREVER          EFFECTIVELY TURN OFF CLOCK.       00325000 559
0203E6 07FE                         390          BR    R14              -> TO CALLER.                     00326000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

                                   392 CIAMTOUT PROLOGUE OPT=ENTRY,AD=CIAMUSER,SA=SAVE2                          00329000
                                   393+         ENTRY CIAMTOUT            NOTE PROLOGUE ENTRY OPTION             00034000


0203E8                             395+CIAMTOUT DS    0H                  DEFINE LABEL,MAKE SURE ALIGNED         00051000
                          203E8    396+         USING *,15               FOR TEMPORARY ADDRESSIBILITY           00052000
0203E8 47F0 F01C      0001C        397+         B     28(,15)            BRANCH AROUND ...                      00018000
0203EC 09C3C9C1D4E3D6E4            398+         DC    AL1(9),CL9'CIAMTOUT'        ID                         00020000
0203F6 F1F061F2F561F8F1            399+         DC    CL14'10/25/81 20.32'        DATE & TIME STAMP          00021000
020404 90EC D00C      0000C        400+         STM   14,12,12(13)       SAVE STANDARD REGISTER SET             00071000
020408 50D0 F0A4      2048C        401+         ST    13,SAVE2+4         SAVE OLD POINTER IN NEW AREA           00119000 446
02040C 18CD                        402+         LR    12,13              MOVE OLD POINTER OVER                  00124000
02040E 41D0 F0A0      20488        403+         LA    13,SAVE2           ADDRESS OF NEW SAVE AREA               00125000 446
020412 50DC 0008      00008        404+         ST    13,8(12)           SAVE NEW POINTER IN OLD AREA           00126000
020416 0700                        405+         CNOP  0,4                                                       00019000
020418 47F0 F038      20420        406+         B     *+8                SKIP AROUND ADDRESS CONSTANT           00020000
02041C 00020000                    407+         DC    A(CIAMUSER)        ADDRESS CONSTANT FOR AD=PARAMETER      00021000 2
020420 58C0 F034      2041C        408+         L     12,*-4             LOAD ADCON INTO RIGHT REGISTER         00022000
                                   409+         DROP  15                 CLEAN UP USING SITUATION               00029000
                          20000    410+         USING CIAMUSER,12                                               00030000 2

020424 D501 1062 CF28 00062 20F28  412          CLC   98(2,R1),=X'00D1'  DUMP CIAM CONTROL STORAGE??            00330000
02042A 4770 C436      20436        413          BNE   *+12               -> NO, CHECK FOR TIMEOUT.              00331000
02042E 9602 C5FA      205FA        414          OI    CIAMFLG1,DUMPSTOR  SET FLAG                               00332000 543 550
020432 47F0 CCA8      20CA8        415          B     DUMPIT             -> GO DUMP.                            00333000 861

020436 D501 1062 CF2A 00062 20F2A  417          CLC   98(2,R1),=X'1004'  CLOCK COMPARATOR EXT. ITRPT?           00335000
02043C 4770 C472      20472        418          BNE   TOUTEXIT          -> NO, IGNORE.                         00336000 437
020440 5820 C4F8      204F8        419          L     R2,SAVECB@         MAKE SURE ADDRESSABILTY TO CIAM_CB     00337000 464
                          00000    420          USING CIAMCB,R2          ...                                    00338000 1051
020444 B206 C648      20648        421          SCKC  FOREVER            DON'T TIMEOUT ON ME.                   00339000 559
020448 B600 C638      20638        422          STCTL C0,C0,SAVECR0      GET CONTROL REG 0.                     00340000 557
02044C 94F7 C63A      2063A        423          NI    SAVECR0+2,X'FF'-X'08' TURN OFF CLOCK.                   00341000 557
020450 B700 C638      20638        424          LCTL  C0,C0,SAVECR0      RELOAD CONTROL REG 0.                  00342000 557
020454 9608 C5FA      205FA        425          OI    CIAMFLG1,TIMEOUT   TELL WORLD THAT WE ARE IN TIMEOUT.     00343000 543 548
020458 47F0 C284      20284        426          B     INTRNXIT           -> SHUT THINGS DOWN.                   00344000 281
02045C                             427 TOUTRET  DS    0H                 BACK FROM CIAMTERM.                    00345000
02045C 45E0 C9E4      209E4        428          BAL   R14,ERR011         -> WRITE ERROR MESSAGE.                00346000 737

                                   430          POST  CIAM$ECB,X'1004'   POST W/CC OF X'1004', IE TIMEOUT.      00348000
020460 4110 C4FC      204FC        431+         LA    1,CIAM$ECB                 LOAD PARAMETER REG 1          00100000 465
020464                             432+         CNOP  0,4                                                       00260000
020464 47F0 C46C      2046C        433+         B     *+8                        BRANCH AROUND CODE            00280000
020468 00001004                    434+         DC    AL4(X'1004')          CODE VALUE                MO16  00300016
02046C 5800 C468      20468        435+         L     0,*-4                      LOAD CODE VALUE               00320000
020470 0A02                        436+         SVC   2                          ISSUE POST SVC                00340000
020472                             437 TOUTEXIT DS    0H                                                      00349000
020472 94FD C5FA      205FA        438          NI    CIAMFLG1,X'FF'-DUMPSTOR MAKE SURE FLAG IS CLEARED.        00350000 543 550
                                   439          EPILOGUE SA=SAVE2                                               00351000

020476 58DD 0004      00004        441+         L     13,4(13)           RESTORE PREVIOUS SAVE AREA POINT       00054000
02047A 58ED 000C      0000C        442+         L     14,12(13)          RELOAD REG 14                          00045000
02047E 980C D014      00014        443+         LM    0,12,20(13)        RELOAD REST OF REGS                    00048000
020482 92FF D00C      0000C        444+         MVI   12(13),X'FF'       SHOW WE HAVE RETURNED                  00069000
020486 07FE                        445+         BR    14                 RETURN NORMALLY TO CALLER              00073000
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LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

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020488 0000000000000000            446+SAVE2    DC    18F'0'      SAVE AREA,NAMED BY MACRO          00080000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

0204D0                            449 ROLLBACK DS    0H                                                    00354000
0204D0 B206 C648      20648       450          SCKC  FOREVER             DON'T TIMEOUT ON ME.             00355000 559
0204D4 B600 C638      20638       451          STCTL C0,C0,SAVECR0       GET CONTROL REG 0.               00356000 557
0204D8 94F7 C63A      2063A       452          NI    SAVECR0+2,X'FF'-X'08' TURN OFF CLOCK.                00357000 557
0204DC B700 C638      20638       453          LCTL  C0,C0,SAVECR0       RELOAD CONTROL REG 0.            00358000 557
0204E0 9104 C5FA      205FA       454          TM    CIAMFLG1,ABEND      HAVE I BEEN HERE BEFORE??        00359000 543 549
0204E4 4710 C2E2      202E2       455          BO    RETURN              -> YEP, GO HOME.                 00360000 324
0204E8 9604 C5FA      205FA       456          OI    CIAMFLG1,ABEND      TELL WORLD THAT WE ARE IN ABEND. 00361000 543 549
0204EC 47F0 C284      20284       457          B     INTRNXIT            -> SHUT THINGS DOWN.             00362000 281
0204F0                            458 ABNRET   DS    0H                  BACK FROM CIAMTERM.              00363000
0204F0 45E0 CA98      20A98       459          BAL   R14,ERR012          -> WRITE ROLLBACK INFO. MSG.     00364000 761
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
                                461          ENTRY CIAM$DA,CIAM$DAE   FOR EASY LOCATION.                        00367000
0204F8                          462 CIAM$DA  DS    0D                                                          00368000
                         204F8  463 CIAM$DAB EQU   *                DATA AREA BEGIN.                          00369000
0204F8 00000000                 464 SAVECB@  DC    AL4(0)           ADDRESS OF CIAM_CB                       00370000
0204FC 00000000                 465 CIAM$ECB DC    AL4(0)           OS/VMCF EVENT CONTROL BLOCK.             00371000
020500 00000000                 466 CIAM$FM  DC    AL4(0)           FM ABEND ADDRESS.                        00372000
                                467          EXTRN IEAVMCF                                                  00373000
020504 00000000                 468 AIEAVMCF DC    A(IEAVMCF)       ADDRESS OF IEAVMCF.                      00374000 467
020508 00000A44                 469 AIEASTRT DC    A(IEAVMCF+X'A44')  ADDRESS OF IEAVMCF DATA AREA START.    00375000 467
02050C 00000CB7                 470 AIEAEND  DC    A(IEAVMCF+X'CB7')  ADDRESS OF IEAVMCF DATA AREA END.     00376000 467
                         00028  471 LENVMCP  EQU   X'28'               LENGTH OF A OS/VMCF CONTROL BLOCK.   00377000

020510 0000000000000000         473 CIAMVMCP DC    XL(LENVMCP)'00'  VMCF PARAMETER LIST.                    00379000 471

020538                          475 AUTHPARM DS    0XL(LENVMCP)     AUTHORIZE MACHINE TO OS/VMCF.            00381000 471
020538 80                       476          DC    AL1(VMCPAUTS)    FLAGS -- AUTH SPECIFIC.                  00382000 1139
020539 00                       477          DC    X'00'            RESERVED.                                00383000
02053A 0000                     478          DC    AL2(VMCPAUTH)    AUTHORIZE REQUEST.                       00384000 1143
02053C 0001                     479          DC    H'0001'          MESSAGE ID.                              00385000
02053E 00                       480          DC    X'00'            USER PORT 0.                             00386000
02053F FF                       481          DC    X'FF'            DBMS PORT 255 :: THE PORT AUTHORITY.     00387000
020540 4040404040404040         482 AUTHVMID DC    CL8' '           DBMS VMID.                               00388000
020548 000204FC                 483          DC    A(CIAM$ECB)      ADDR OF MY EVENT CONTROL BLOCK.          00389000 465
02054C 00000004                 484          DC    A(L'CIAM$ECB)    AND ITS LENGTH.                          00390000 465
020550 000203E8                 485          DC    A(CIAMTOUT)      ADDR OF MY TIME OUT ROUTINE.             00391000 395
020554 00000000                 486          DC    A(0)                                                      00392000
020558 C5E7E3C5D9D5C1D3         487          DC    CL8'EXTERNAL'    TELL IEAVMCF THAT WE WANT                00393000
                                488 *                               NON- X'4001' EXTERNAL INTERUPTS.         00394000
                         00028  489 AUTHLEN  EQU   *-AUTHPARM        LENGTH OF AUTHPARM.                      00395000 ?

020560                          491 PORTREQ  DS    0XL(LENVMCP)     CIAM/VMCF PORT REQUEST CB.               00397000 471
020560 00                       492          DC    X'00'                                                     00398000
020561 00                       493          DC    X'00'            RESERVED.                                00399000
020562 0003                     494          DC    AL2(VMCPSENR)    SEND/RECV REQUEST.                       00400000 1146
020564 0002                     495          DC    H'0002'          MESSAGE ID.                              00401000
020566 00                       496          DC    X'00'            USER PORT 0.                             00402000
020567 FF                       497          DC    X'FF'            DBMS PORT 255 :: THE PORT AUTHORITY.     00403000
020568 4040404040404040         498 PREQVMID DC    CL8' '           DBMS VMID.                               00404000
020570 000205E0                 499          DC    A(PORTRCB)       ADDR OF PORT REQUEST BLOCK.              00405000 524
020574 00000008                 500          DC    A(L'PORTRCB)     AND ITS LENGTH.                          00406000 524
020578 000205E0                 501          DC    A(PORTRCB)       ADDR OF PORT REQUEST BLOCK.              00407000 524
02057C 00000008                 502          DC    A(L'PORTRCB)     AND ITS LENGTH.                          00408000 524
020580 0000000000000000         503          DC    XL8'00'          USER DOUBLE WORD.                        00409000
                         00028  504 PORTRLEN EQU   *-PORTREQ        LENGTH OF PORTREQ CONTROL BLOCK.         00410000 ?

020588                          506 UNSTKCB  DS    0XL(LENVMCP)     CIAM/VMCF UNSTACK EXTERNAL INTERUPT      00412000 471
020588 00                       507          DC    X'00'                                                     00413000
020589 00                       508          DC    X'00'            RESERVED.                                00414000
02058A 001F                     509          DC    AL2(VMCPUNST)    SEND/RECV REQUEST.                       00415000 1155
02058C 0000                     510          DC    H'0000'          MESSAGE ID.                              00416000
02058E 00                       511          DC    X'00'            USER PORT 0.                             00417000
02058F 00                       512          DC    X'00'            DBMS PORT ??                             00418000
020590 4040404040404040         513          DC    CL8' '           DBMS VMID.                               00419000
020598 000205B0                 514          DC    A(CIAMHDR)       ADDR OF EXT. INTRUPT INFO                00420000 521
02059C 00000028                 515          DC    A(L'CIAMHDR)     AND ITS LENGTH.                          00421000 521
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

0205A0 00000000                     516           DC    A(0)                                                    00422000
0205A4 00000000                     517           DC    A(0)                                                    00423000
0205A8 0000000000000000             518           DC    XL8'00'          USER DOUBLE WORD.                      00424000
                            00028   519 UNSTKLEN  EQU   *-UNSTKCB        LENGTH OF UN-STACK CONTROL BLOCK.      00425000 ?

0205B0 0000000000000000             521 CIAMHDR   DC    XL(LENVMCP)'00'  EXTERNAL INT. INFO BLOCK                00427000 471
0205D8 000205B000000028             522 HDRINFO   DC    A(CIAMHDR,L'CIAMHDR)  CIAMHDR ADDR & LEN FOR UNSTACK.    00428000 521 521

0205E0                              524 PORTRCB   DS    0XL8             PORT REQUEST CONTROL BLOCK.            00430000
0205E0 FFFFFFFF                     525           DC    AL4(-1)          SIZE OF CIAM_CB.                       00431000
0205E4 FFFFFFFB                     526           DC    AL4(-5)          RETURNED PORT ID.                      00432000

0205E8 00000000                     528 CIAM$DML  DC    F'00'            CURRENT DML FUNCTION CODE.             00434000
0205EC 0000003B                     529 BINDRU    DC    F'59'            BIND RUN-UNIT FUNCTION CODE.           00435000
0205F0 00000002                     530 FINISH    DC    F'02'            FINISH FUNCTION CODE.                  00436000
0205F4 00000043                     531 RBACKDML  DC    F'67'            ROLLBACK FUNCTION CODE.                00437000
0205F8 00                           532 DISABLE   DC    X'00'            DIS-ALLOW INTERUPTS.                   00438000
0205F9 FF                           533 ENABLE    DC    X'FF'            ALLOW INTERUPTS.                       00439000
                                    534           BITEQU                                                       00440000
                            00080   535+BIT0      EQU   B'10000000'      X'80'  128                             00003000
                            00040   536+BIT1      EQU   B'01000000'      X'40'  64                              00004000
                            00020   537+BIT2      EQU   B'00100000'      X'20'  32                              00005000
                            00010   538+BIT3      EQU   B'00010000'      X'10'  16                              00006000
                            00008   539+BIT4      EQU   B'00001000'      X'08'  8                               00007000
                            00004   540+BIT5      EQU   B'00000100'      X'04'  4                               00008000
                            00002   541+BIT6      EQU   B'00000010'      X'02'  2                               00009000
                            00001   542+BIT7      EQU   B'00000001'      X'01'  1                               00010000
0205FA 00                           543 CIAMFLG1  DC    X'00'            FLAGS, ALL INIT TO OFF.                00441000
                            00080   544 ONLY2     EQU   BIT0             ONLY 2 ARGS THIS DML.                  00442000
                            00040   545 CIAMAUTH  EQU   BIT1             USER MACHINE AUTH'ED WITH OS/VMCF.     00443000
                            00020   546 EOLIST    EQU   BIT2             END OF PARM LIST FOUND.                00444000
                            00010   547 XITED     EQU   BIT3             BEEN THRU CIAMTERM.                    00445000
                            00008   548 TIMEOUT   EQU   BIT4             SVC211 HAS TIMED OUT.                  00446000
                            00004   549 ABEND     EQU   BIT5             IN ROLLBACK CODE.                      00447000
                            00002   550 DUMPSTOR  EQU   BIT6             EXT INTRP X'00D1' DUMPIT CODE.         00448000
                            00001   551 UNUSED1   EQU   BIT7                                                    00449000 ?
020600                              552           DS    0D                                                     00450000
020600 0000000000000000             553 DB        DC    XL8'00'          DBL WORD FOR CVD.                      00451000
020608 0000000000000000             554 DATETIME  DC    XL32'00'         ALIGNED WORK AREA FOR DIAG X'0C'.      00452000
020628 0000000000000000             555 SAVETOD   DC    D'00'            OLD TIME OF DAY.                       00453000
020630 0000000000000000             556 TMPTOD    DC    D'00'            NEW TIME OF DAY.                       00454000
020638 0000000000000000             557 SAVECRO   DC    D'00'                                                   00455000
020640 0000000000000000             558 RESTCRO   DC    D'00'            SAVE AREA FOR CRO                      00456000
020648 FFFFFFFFFFFFFFFF             559 FOREVER   DC    8X'FF'           EFFECTIVE FOREVER IN TIMEOUT.          00457000
020650                              560 CIAM$DAE  DS    0H               MARKER FOR END OF DATAAREA             00458000
                            00158   561 CIAM$DAL  EQU   *-CIAM$DAB       LENGTH OF CIAM DATA AREA.              00459000 ?
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                   00000   564          USING CIAMCB,R2                                          00463000 1051
                                           565 ERR001   LINEDIT TEXT='CIAM$I201E ATTEMPT TO RE-BIND RUN-UNIT WITHOUT I*00464000
                                                        SSUING FIRST A FINISH DML (......)',                     *00465000
                                                        SUB=(DECA,CCBDMLSN),DISP=ERRMSG,RENT=NO                  00466000
020650                                     566+ERR001   DS    0H                                                  00099000
020650 4510 C6AA       206AA               567+         BAL   1,DMSA0042                                         00113000 573
020654 10C0                                568+         DC    AL1(16,192)           FLAG BYTES                  00115000
020656 C1                                  569+         DC    AL1(DMSC0042)                                     00019000 574
020657 52                                  570+DMST0042 DC    AL1(DMSL0042)         LENGTH OF MESSAGE TEXT      00144000 572
020658 C3C9C1D45BC9F2F0                    571+         DC    C'CIAM$I201E ATTEMPT TO RE-BIND RUN-UNIT WITHOUT ISSUINGX00147000
020660 F1C540C1E3E3C5D4                      +          FIRST A FINISH DML (......)'
                                   00052   572+DMSL0042 EQU   *-DMST0042-1            TEXT LENGTH                 00150000
0206AA                                     573+DMSA0042 DS    0H                                                  00152000
                                   000C1   574+DMSC0042 EQU   193                   SUBSTITUTION CODE           00061000
0206AA 4100 21C4       001C4               575+         LA    0,CCBDMLSN                                        00017000 1128
0206AE 0ACB                                576+         SVC   203                                               00019000
0206B0 FFFA                                577+         DC    H'-6'                                             00019000
                                           578          DROP  R2                                                00467000
0206B2 41F0 00C9       000C9               579          LA    R15,201           ERROR CODE.                   00468000
0206B6 47F0 CC92       20C92               580          B     ERRRET1                                           00469000 854

                                   00000   582          USING  CIAMCB,R2                                         00471000 1051
                                           583 ERR002   LINEDIT TEXT='CIAM$D202E BIND RUN-UNIT NOT FIRST EXECUTED DML *00472000
                                                        STATEMENT (....) (......)',                              *00473000
                                                        SUB=(DECA,CIAM$DML,DECA,CCBDMLSN),DISP=ERRMSG,RENT=NO    00474000
0206BA                                     584+ERR002   DS    0H                                                  00099000
0206BA 4510 C714       20714               585+         BAL   1,DMSA0074                                         00113000 591
0206BE 08C0                                586+         DC    AL1(8,192)            FLAG BYTES                  00115000
0206C0 0000000000000000                    587+         DC    (2)XL5'00'                                        00019000
0206CA 49                                  588+DMST0074 DC    AL1(DMSL0074)         LENGTH OF MESSAGE TEXT      00144000 590
0206CB C3C9C1D45BC4F2F0                    589+         DC    C'CIAM$D202E BIND RUN-UNIT NOT FIRST EXECUTED DML STATEMX00147000
0206D3 F2C540C2C9D5C440                      +          ENT (....) (......)'
                                   00049   590+DMSL0074 EQU   *-DMST0074-1            TEXT LENGTH                 00150000
020714                                     591+DMSA0074 DS    0H                                                  00152000
020714 9241 1002       00002               592+         MVI   2(1),65                 SET OPTION CODE             00093000
020718 41F0 C5E8       205E8               593+         LA    15,CIAM$DML                                       00017000 528
02071C BEF7 1003       00003               594+         STCM  15,B'0111',3(1)                                   00015000
020720 92C1 1006       00006               595+         MVI   6(1),193                SET OPTION CODE             00093000
020724 41F0 21C4       001C4               596+         LA    15,CCBDMLSN                                       00017000 1128
020728 BEF7 1007       00007               597+         STCM  15,B'0111',7(1)                                   00015000
02072C 0ACB                                598+         SVC   203                                               00019000
02072E FFFA                                599+         DC    H'-6'                                             00019000
                                           600          DROP  R2                                                00475000
020730 41F0 00CA       000CA               601          LA    R15,202           ERROR CODE.                   00476000
020734 47F0 CC92       20C92               602          B     ERRRET1                                           00477000 854

                                           604 ERR003   LINEDIT TEXT='CIAM$I203E AUTHORIZE REQUEST FAILED, RC= ......'*00479000
                                                        ,DISP=ERRMSG,RENT=NO,SUB=(DEC,(R3))                      00480000
020738                                     605+ERR003   DS    0H                                                  00099000
020738 4510 C770       20770               606+         BAL   1,DMSA0123                                         00113000 612
02073C 10C0                                607+         DC    AL1(16,192)           FLAG BYTES                  00115000
02073E 81                                  608+         DC    AL1(DMSC0123)                                     00019000 613
02073F 2F                                  609+DMST0123 DC    AL1(DMSL0123)         LENGTH OF MESSAGE TEXT      00144000 611
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                        ASH 0201 20.32 10/25/81

020740 C3C9C1D45BC9F2F0                  610+          DC    C'CIAM$I203E AUTHORIZE REQUEST FAILED, RC= ......'       00147000
                                  0002F  611+DMSL0123 EQU   *-DMST0123-1             TEXT LENGTH                     00150000
020770                                   612+DMSA0123 DS    0H                                                       00152000
                                  00081  613+DMSC0123 EQU   129                     SUBSTITUTION CODE               00061000
020770 1803                              614+          LR    0,R3                                                     00017000
020772 0ACB                              615+          SVC   203                                                      00019000
020774 FFFA                              616+          DC    H'-6'                                                    00019000
020776 47F0 CC92       20C92             617           B     ERRRET1                                                  00481000 854

                                         619 ERR004    LINEDIT TEXT='CIAM$I204E PORT REQUEST FAILED, STATUS= .......,*00483000
                                                       PORT ID= ......',DISP=ERRMSG,RENT=NO,                        *00484000
                                                       SUB=(HEX4A,CIAM$ECB,HEXA,PORTRCB+4)                          00485000
02077A                                   620+ERR004    DS    0H                                                       00099000
02077A 4510 C7CC       207CC             621+          BAL   1,DMSA0155                                               00113000 627
02077E 08C0                              622+          DC    AL1(8,192)                FLAG BYTES                     00115000
020780 0000000000000000                  623+          DC    (2)XL5'00'                                               00019000
02078A 40                                624+DMST0155 DC    AL1(DMSL0155)             LENGTH OF MESSAGE TEXT         00144000 626
02078B C3C9C1D45BC9F2F0                  625+          DC    C'CIAM$I204E PORT REQUEST FAILED, STATUS= ......., PORT X00147000
020793 F4C540D7D6D9E340                    +                  ID= ......'
                                  00040  626+DMSL0155 EQU   *-DMST0155-1             TEXT LENGTH                    00150000
0207CC                                   627+DMSA0155 DS    0H                                                       00152000
0207CC 9243 1002       00002             628+          MVI   2(1),67                   SET OPTION CODE                00093000
0207D0 41F0 C4FC       204FC             629+          LA    15,CIAM$ECB                                              00017000 465
0207D4 BEF7 1003       00003             630+          STCM  15,B'0111',3(1)                                          00015000
0207D8 92C0 1006       00006             631+          MVI   6(1),192                  SET OPTION CODE                00093000
0207DC 41F0 C5E4       205E4             632+          LA    15,PORTRCB+4                                             00017000 524
0207E0 BEF7 1007       00007             633+          STCM  15,B'0111',7(1)                                          00015000
0207E4 0ACB                              634+          SVC   203                                                      00019000
0207E6 FFFA                              635+          DC    H'-6'                                                    00019000
0207E8 41F0 00CC       000CC             636           LA    R15,204                 ERROR CODE.                    00486000
0207EC 47F0 CC92       20C92             637           B     ERRRET1                                                  00487000 854

                                         639 ERR005    LINEDIT TEXT='CIAM$I205E UN-AUTHORIZE TO PORT AUTHORITY FAILED*00489000
                                                       , RC= ......',DISP=ERRMSG,RENT=NO,SUB=(DEC,(R3))             00490000
0207F0                                   640+ERR005    DS    0H                                                       00099000
0207F0 4510 C836       20836             641+          BAL   1,DMSA0204                                               00113000 647
0207F4 10C0                              642+          DC    AL1(16,192)               FLAG BYTES                     00115000
0207F6 81                                643+          DC    AL1(DMSC0204)                                            00019000 648
0207F7 3D                                644+DMST0204 DC    AL1(DMSL0204)             LENGTH OF MESSAGE TEXT         00144000 646
0207F8 C3C9C1D45BC9F2F0                  645+          DC    C'CIAM$I205E UN-AUTHORIZE TO PORT AUTHORITY FAILED , RC=X00147000
020800 F5C540E4D560C1E4                    +                  ......'
                                  0003D  646+DMSL0204 EQU   *-DMST0204-1             TEXT LENGTH                    00150000
020836                                   647+DMSA0204 DS    0H                                                       00152000
                                  00081  648+DMSC0204 EQU   129                     SUBSTITUTION CODE              00061000
020836 1803                              649+          LR    0,R3                                                     00017000
020838 0ACB                              650+          SVC   203                                                      00019000
02083A FFFA                              651+          DC    H'-6'                                                    00019000
02083C 47F0 CC92       20C92             652           B     ERRRET1                                                  00491000 854

                                         654 ERR006    LINEDIT TEXT='CIAM$I206E AUTHORIZE TO DBMS PORT .... FAILED, R*00493000
                                                       C= .....',DISP=ERRMSG,RENT=NO,                               *00494000
                                                       SUB=(HEX,(R4),DEC,(R3))                                      00495000
020840                                   655+ERR006    DS    0H                                                       00099000
020840 4510 C88A       2088A             656+          BAL   1,DMSA0236                                               00113000 662
020844 08C0                              657+          DC    AL1(8,192)                FLAG BYTES                     00115000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

020846 0000000000000000                    658+          DC    (2)XL5'00'                                          00019000
020850 38                                  659+DMST0236  DC    AL1(DMSL0236)          LENGTH OF MESSAGE TEXT       00144000 661
020851 C3C9C1D45BC9F2F0                    660+          DC    C'CIAM$I206E AUTHORIZE TO DBMS PORT .... FAILED, RC= ...X00147000
020859 F6C540C1E4E3C8D6                      +                  ..'
                                  00038    661+DMSL0236  EQU   *-DMST0236-1            TEXT LENGTH                  00150000
02088A                                     662+DMSA0236  DS    0H                                                  00152000
02088A 9200 1002       00002               663+          MVI   2(1),0                 SET OPTION CODE              00093000
02088E BE4F 1003       00003               664+          STCM  R4,B'1111',3(1)                                     00015000
020892 9281 1007       00007               665+          MVI   7(1),129               SET OPTION CODE              00093000
020896 BE3F 1008       00008               666+          STCM  R3,B'1111',8(1)                                     00015000
02089A 0ACB                                673+          SVC   203                                               00019000
02089C FFFA                                674+          DC    H'-6'                                             00019000
02089E 47F0 CC92       20C92               675           B     ERRRET1                                           00496000 854

                                           677 ERR007    LINEDIT TEXT='CIAM$S207E RETURN CODE FROM UNSTACK NON ZERO (..*00498000
                                                 .)',DISP=ERRMSG,RENT=NO,SUB=(DEC,(R3))                          00499000
0208A2                                     678+ERR007    DS    0H                                                  00099000
0208A2 4510 C8DC       208DC               679+          BAL   1,DMSA0285                                        00113000 679
0208A6 10C0                                680+          DC    AL1(16,192)            FLAG BYTES                00115000
0208A8 81                                  681+          DC    AL1(DMSC0285)                                     00019000 680
0208A9 32                                  682+DMST0285  DC    AL1(DMSL0285)          LENGTH OF MESSAGE TEXT       00144000 678
0208AA C3C9C1D45BE2F2F0                    683+          DC    C'CIAM$S207E RETURN CODE FROM UNSTACK NON ZERO (...)'  00147000
                                  00032    684+DMSL0285  EQU   *-DMST0285-1            TEXT LENGTH                  00150000
0208DC                                     685+DMSA0285  DS    0H                                                  00152000
                                  00081    686+DMSC0285  EQU   129                    SUBSTITUTION CODE            00061000
0208DC 1803                                687+          LR    0,R3                                              00017000
0208DE 0ACB                                688+          SVC   203                                               00019000
0208E0 FFFA                                689+          DC    H'-6'                                             00019000
0208E2 47F0 CCA8       20CA8               690           B     ERRRET2            -> DUMP STORAGE                00500000 863

                                  00000    692           USING VMCMHDR,R4                                        00502000 1169
                                           693 ERR008    LINEDIT TEXT='CIAM$S208E MESSAGE ID IN VMCP BLOCK (.....) NOT *00503000
                                                 MESSAGE ID IN VMCM BLOCK (....)',DISP=ERRMSG,RENT=NO,           *00504000
                                                 SUB=(HEX4A,(UNSTKCB+4,2),HEX4A,(VMCMUMID,2))                    00505000
0208E6                                     694+ERR008    DS    0H                                                  00099000
0208E6 4510 C946       20946               695+          BAL   1,DMSA0317                                        00113000 695
0208EA 08C0                                696+          DC    AL1(8,192)             FLAG BYTES                00115000
0208EC 0000000000000000                    697+          DC    (2)XL5'00'                                        00019000
0208F6 4F                                  698+DMST0317  DC    AL1(DMSL0317)          LENGTH OF MESSAGE TEXT       00144000 694
0208F7 C3C9C1D45BE2F2F0                    699+          DC    C'CIAM$S208E MESSAGE ID IN VMCP BLOCK (.....) NOT MESSAGX00147000
0208FF F8C540D4C5E2E2C1                      +                  E ID IN VMCM BLOCK (....)'
                                  0004F    700+DMSL0317  EQU   *-DMST0317-1            TEXT LENGTH                  00150000
020946                                     701+DMSA0317  DS    0H                                                  00152000
020946 9263 1002       00002               702+          MVI   2(1),99                SET OPTION CODE              00093000
02094A 9202 1003       00003               703+          MVI   3(1),2                                              00017000
02094E 41F0 C58C       2058C               704+          LA    15,UNSTKCB+4                                        00017000 506
020952 BEF7 1004       00004               705+          STCM  15,B'0111',4(1)                                     00015000
020956 92E3 1007       00007               706+          MVI   7(1),227               SET OPTION CODE              00093000
02095A 9202 1008       00008               707+          MVI   8(1),2                                              00017000
02095E 41F0 4004       00004               708+          LA    15,VMCMUMID                                         00017000 1184
020962 BEF7 1009       00009               709+          STCM  15,B'0111',9(1)                                     00015000
020966 0ACB                                710+          SVC   203                                               00019000
020968 FFFA                                711+          DC    H'-6'                                             00019000
02096A 47F0 CCA8       20CA8               712           B     ERRRET2            -> DUMP STORAGE                00506000 863
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                   708 ERR009   LINEDIT TEXT='CIAM$S209E DBMS (........) REJECTED DML REQUEST'*00508000
                                         ,DISP=ERRMSG,RENT=NO,SUB=(CHAR0A,VMCMUSER)                        00509000
0209E6                             709+ERR009   DS    0H                                                   00099000
0209E6 4510 C9A6       209A6       710+         BAL   1,DMSA0366                                           00113000 716
020972 10C0                        711+         DC    AL1(16,192)           FLAG BYTES                     00115000
020974 C4                          712+         DC    AL1(DMSC0366)                                        00019000 717
020975 2F                          713+DMST0366 DC    AL1(DMSL0366)         LENGTH OF MESSAGE TEXT         00144000 715
020976 C3C9C1D45BE2F2F0            714+         DC    C'CIAM$S209E DBMS (........) REJECTED DML REQUEST'     00147000
                          0002F    715+DMSL0366 EQU   *-DMST0366-1          TEXT LENGTH                    00150000
0209A6                             716+DMSA0366 DS    0H                                                   00152000
                          000C4    717+DMSC0366 EQU   196                   SUBSTITUTION CODE              00061000
0209A6 4100 4008       00008       718+         LA    0,VMCMUSER                                           00017000 1187
0209AA 0ACB                        719+         SVC   203                                                  00019000
0209AC FFFA                        720+         DC    H'-6'                                                00019000
0209AE 47F0 CCA8       20CA8       721          B     ERRRET2           -> DUMP STORAGE                    00510000 863

                                   723 MSG010   LINEDIT TEXT='CIAM$T210I CIAMTERM ENTERED ON ABEND',       *00512000
                                         DISP=ERRMSG,RENT=NO                                               00513000
0209B2                             724+MSG010   DS    0H                                                   00099000
0209B2 4510 C9DE       209DE       725+         BAL   1,DMSA0398                                           00113000 730
0209B6 00C0                        726+         DC    AL1(0,192)            FLAG BYTES                     00115000
0209B8 24                          727+DMST0398 DC    AL1(DMSL0398)         LENGTH OF MESSAGE TEXT         00144000 729
0209B9 C3C9C1D45BE3F2F1            728+         DC    C'CIAM$T210I CIAMTERM ENTERED ON ABEND'              00147000
                          00024    729+DMSL0398 EQU   *-DMST0398-1          TEXT LENGTH                    00150000
0209DE                             730+DMSA0398 DS    0H                                                   00152000
0209DE 0ACB                        731+         SVC   203                                                  00019000
0209E0 FFFA                        732+         DC    H'-6'                                                00019000
0209E2 07FE                        733          BR    R14                 -> BACK TO CALLER.               00514000

                          00000    735          USING CIAMCB,R2                                            00516000 1051
                                   736 ERR011   LINEDIT TEXT='CIAM$T211E DML CODE .... HAS TAKEN GREATER THAN *00517000
                                         .... SECONDS TO COMPLETE, DML INVOKED AT DML SEQUENCE NU*00518000
                                         MBER .....',                                                      *00519000
                                         SUB=(DECA,CIAM$DML,DECA,CCBTOL,DECA,CCBDMLSN),                    *00520000
                                         DISP=ERRMSG,RENT=NO                                               00521000
0209E4                             737+ERR011   DS    0H                                                   00099000
0209E4 4510 CA6C       20A6C       738+         BAL   1,DMSA0425                                           00113000 744
0209E8 08C0                        739+         DC    AL1(8,192)            FLAG BYTES                     00115000
0209EA 0000000000000000            740+         DC    (3)XL5'00'                                           00019000
0209F9 72                          741+DMST0425 DC    AL1(DMSL0425)         LENGTH OF MESSAGE TEXT         00144000 743
0209FA C3C9C1D45BE3F2F1            742+         DC    C'CIAM$T211E DML CODE .... HAS TAKEN GREATER THAN .... SK00147000
020A02 F1C540C4D4D340C3              +          ECONDS TO COMPLETE, DML INVOKED AT DML SEQUENCE NUMBER .X
020A0A D6C4C5404B4B4B4B              +          ....'
                          00072    743+DMSL0425 EQU   *-DMST0425-1          TEXT LENGTH                    00150000
020A6C                             744+DMSA0425 DS    0H                                                   00152000
020A6C 9241 1002       00002       745+         MVI   2(1),65               SET OPTION CODE                00093000
020A70 41F0 C5E8       205E8       746+         LA    15,CIAM$DML                                          00017000 528
020A74 BEF7 1003       00003       747+         STCM  15,B'0111',3(1)                                      00015000
020A78 9241 1006       00006       748+         MVI   6(1),65               SET OPTION CODE                00093000
020A7C 41F0 2004       00004       749+         LA    15,CCBTOL                                            00017000 1059
020A80 BEF7 1007       00007       750+         STCM  15,B'0111',7(1)                                      00015000
020A84 92C1 100A       0000A       751+         MVI   10(1),193             SET OPTION CODE                00093000
020A88 41F0 21C4       021C4       752+         LA    15,CCBDMLSN                                          00017000 1128
020A8C BEF7 100B       0000B       753+         STCM  15,B'0111',11(1)                                     00015000
020A90 0ACB                        754+         SVC   203                                                  00019000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

020A92 FFFA                        755+          DC    H'-6'                                                  00019000
                                   756           DROP  R2                                                     00522000
020A94 47F0 CCA8       20CA8       757           B     ERRRET2            -> TELL WORLD OF IMPENDING DOOM.    00523000 863

                              00000 759           USING CIAMCB,R2                                            00525000 1051
                                   760 ERR012    LINEDIT TEXT='CIAM$T212E IDMS RUN-UNIT HAS REQUESTED ABNORMAL *00526000
                                         TERMINATION',DISP=ERRMSG,RENT=NO                                     00527000
020A98                             761+ERR012    DS    0H                                                     00099000
020A98 4510 CADA       20ADA       762+          BAL   1,DMSA0481                                            00113000 767
020A9C 00C0                        763+          DC    AL1(0,192)           FLAG BYTES                      00115000
020A9E 3B                          764+DMST0481  DC    AL1(DMSL0481)        LENGTH OF MESSAGE TEXT          00144000 766
020A9F C3C9C1D45BE3F2F1            765+          DC    C'CIAM$T212E IDMS RUN-UNIT HAS REQUESTED ABNORMAL TERMINX00147000
020AA7 F2C540C9C4D4E240              +           ATION'
                              0003B 766+DMSL0481  EQU   *-DMST0481-1       TEXT LENGTH                     00150000
020ADA                             767+DMSA0481  DS    0H                                                     00152000
020ADA 0ACB                        768+          SVC   203                                                    00019000
020ADC FFFA                        769+          DC    H'-6'                                                  00019000
                                   770           LINEDIT TEXT='CIAM$T212E ROLLBACK DML WAS EXECUTED AT DML SEQU*00528000
                                         NCE NUMBER .....',                                                   *00529000
                                         SUB=(DECA,CCBDMLSN),                                                 *00530000
                                         DISP=ERRMSG,RENT=NO                                                  00531000
020ADE 4510 CB26       20B26       771+          BAL   1,DMSA0508                                            00113000
020AE2 10C0                        772+          DC    AL1(16,192)          FLAG BYTES                      00115000
020AE4 C1                          773+          DC    AL1(DMSC0508)                                        00019000 778
020AE5 40                          774+DMST0508  DC    AL1(DMSL0508)        LENGTH OF MESSAGE TEXT          00144000 776
020AE6 C3C9C1D45BE3F2F1            775+          DC    C'CIAM$T212E ROLLBACK DML WAS EXECUTED AT DML SEQUNCE NUX00147000
020AEE F2C540D9D6D3D3C2              +           MBER .....'
                              00040 776+DMSL0508  EQU   *-DMST0508-1       TEXT LENGTH                     00150000
020B26                             777+DMSA0508  DS    0H                                                     00152000
                              000C1 778+DMSC0508  EQU   193                  SUBSTITUTION CODE               00061000
020B26 4100 21C4       001C4       779+          LA    0,CCBDMLSN                                           00017000 1128
020B2A 0ACB                        780+          SVC   203                                                    00019000
020B2C FFFA                        781+          DC    H'-6'                                                  00019000
                                   782           LINEDIT TEXT='CIAM$T212E FURTHER DML STATEMENTS WILL BE IGNORE*00532000
                                         D',DISP=ERRMSG,RENT=NO                                               00533000
020B2E 4510 CB66       20B66       783+          BAL   1,DMSA0540                                            00113000
020B32 00C0                        784+          DC    AL1(0,192)           FLAG BYTES                      00115000
020B34 31                          785+DMST0540  DC    AL1(DMSL0540)        LENGTH OF MESSAGE TEXT          00144000 787
020B35 C3C9C1D45BE3F2F1            786+          DC    C'CIAM$T212E FURTHER DML STATEMENTS WILL BE IGNORED'   00147000
                              00031 787+DMSL0540  EQU   *-DMST0540-1       TEXT LENGTH                     00150000
020B66                             788+DMSA0540  DS    0H                                                     00152000
020B66 0ACB                        789+          SVC   203                                                    00019000
020B68 FFFA                        790+          DC    H'-6'                                                  00019000
                                   791           DROP  R2                                                     00534000
020B6A 47F0 CCA8       20CA8       792           B     ERRRET2            -> TELL WORLD OF IMPENDING DOOM.    00535000 863

                                   794 ERR013    LINEDIT TEXT='CIAM$S213E INTERUPT FROM ........ NOT FINAL REPS*00537000
                                         ONCE',DISP=ERRMSG,RENT=NO,SUB=(CHAR8A,VMCMUSER)                      00538000
020B6E                             795+ERR013    DS    0H                                                     00099000
020B6E 4510 CBAA       20BAA       796+          BAL   1,DMSA0567                                            00113000 802
020B72 10C0                        797+          DC    AL1(16,192)          FLAG BYTES                      00115000
020B74 C4                          798+          DC    AL1(DMSC0567)                                        00019000 803
020B75 34                          799+DMST0567  DC    AL1(DMSL0567)        LENGTH OF MESSAGE TEXT          00144000 801
020B76 C3C9C1D45BE2F2F1            800+          DC    C'CIAM$S213E INTERUPT FROM ........ NOT FINAL REPSONCE'  00147000
                              00034 801+DMSL0567  EQU   *-DMST0567-1       TEXT LENGTH                     00150000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

020BAA                             802+DMSA0567 DS    0H                                                    00152000
                             000C4 803+DMSC0567 EQU   196                 SUBSTITUTION CODE                 00061000
020BAA 4100 4008       00008       804+         LA    0,VMCMUSER                                            00017000 1187
020BAE 0ACB                        805+         SVC   203                                                   00019000
020BB0 FFFA                        806+         DC    H'-6'                                                 00019000
020BB2 47F0 CCA8       20CA8       807          B     ERRRET2           -> DUMP STORAGE                     00539000 863

                                   809 ERR014   LINEDIT TEXT='CIAM$S214E ECB NOT CLEARED UPON UNSTACK',     *00541000
                                         DISP=ERRMSG,RENT=NO                                                 00542000
020BB6                             810+ERR014   DS    0H                                                    00099000
020BB6 4510 CBE4       20BE4       811+         BAL   1,DMSA0599                                            00113000 816
020BBA 00C0                        812+         DC    AL1(0,192)                FLAG BYTES                  00115000
020BBC 27                          813+DMST0599 DC    AL1(DMSL0599)             LENGTH OF MESSAGE TEXT      00144000 815
020BBD C3C9C1D45BE2F2F1            814+         DC    C'CIAM$S214E ECB NOT CLEARED UPON UNSTACK'            00147000
                             00027 815+DMSL0599 EQU   *-DMST0599-1            TEXT LENGTH                 00150000
020BE4                             816+DMSA0599 DS    0H                                                    00152000
020BE4 0ACB                        817+         SVC   203                                                   00019000
020BE6 FFFA                        818+         DC    H'-6'                                                 00019000
                                   819          DROP  R4                                                    00543000
020BE8 47F0 CCA8       20CA8       820          B     ERRRET2           -> DUMP STORAGE                     00544000 863

                             00000 822          USING CIAMCB,R2                                           00546000 1051
                                   823 ERR015   LINEDIT TEXT='CIAM$D215E ATTEMPT TO EXECUTE DML .... CALLED AT*00547000
                                          DML SEQUENCE NUMBER ....',DISP=ERRMSG,RENT=NO,                   *00548000
                                         SUB=(DECA,CIAM$DML,DECA,CCBDMLSN)                                   00549000
020BEC                             824+ERR015   DS    0H                                                    00099000
020BEC 4510 CC46       20C46       825+         BAL   1,DMSA0626                                            00113000 831
020BF0 08C0                        826+         DC    AL1(8,192)                FLAG BYTES                  00115000
020BF2 0000000000000000            827+         DC    (2)XL5'00'                                            00019000
020BFC 49                          828+DMST0626 DC    AL1(DMSL0626)             LENGTH OF MESSAGE TEXT      00144000 830
020BFD C3C9C1D45BC4F2F1            829+         DC    C'CIAM$D215E ATTEMPT TO EXECUTE DML .... CALLED AT DML SX00147000
020C05 F5C540C1E3E3C5D4              +          EQUENCE NUMBER ....'
                             00049 830+DMSL0626 EQU   *-DMST0626-1            TEXT LENGTH                 00150000
020C46                             831+DMSA0626 DS    0H                                                    00152000
020C46 9241 1002       00002       832+         MVI   2(1),65                   SET OPTION CODE             00093000
020C4A 41F0 C5E8       205E8       833+         LA    15,CIAM$DML                                           00017000 528
020C4E BEF7 1003       00003       834+         STCM  15,B'0111',3(1)                                       00015000
020C52 92C1 1006       00006       835+         MVI   6(1),193                  SET OPTION CODE             00093000
020C56 41F0 21C4       01C4        836+         LA    15,CCBDMLSN                                           00017000 1128
020C5A BEF7 1007       00007       837+         STCM  15,B'0111',7(1)                                       00015000
020C5E 0ACB                        838+         SVC   203                                                   00019000
020C60 FFFA                        839+         DC    H'-6'                                                 00019000
                                   840          DROP  R2                                                    00550000
                                   841          LINEDIT TEXT='CIAM$D215E DML EXECUTION SKIPPED',            *00551000
                                         DISP=ERRMSG,RENT=NO                                                 00552000
020C62 4510 CC8A       20C8A       842+         BAL   1,DMSA0675                                            00113000
020C66 00C0                        843+         DC    AL1(0,192)                FLAG BYTES                  00115000
020C68 20                          844+DMST0675 DC    AL1(DMSL0675)             LENGTH OF MESSAGE TEXT      00144000 846
020C69 C3C9C1D45BC4F2F1            845+         DC    C'CIAM$D215E DML EXECUTION SKIPPED'                   00147000
                             00020 846+DMSL0675 EQU   *-DMST0675-1            TEXT LENGTH                 00150000
020C8A                             847+DMSA0675 DS    0H                                                    00152000
020C8A 0ACB                        848+         SVC   203                                                   00019000
020C8C FFFA                        849+         DC    H'-6'                                                 00019000
020C8E 41F0 00D7       000D7       850          LA    R15,215             SET RETURN CODE.                  00553000
                                   851 *        B     ERRRET1                                               00554000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

                            00000   853          USING CIAMCB,R2                                                  00556000 1051
020C92 4EF0 C600            20600   854 ERRRET1  CVD   R15,DB              CONVERT RC TO DECIMAL.               00557000 553
020C96 F337 20F8 C600 000F8 20600   855          UNPK  CCBEDML(4),DB        ...                                  00558000 1112 553
020C9C 96F0 20FB            000FB   856          OI    CCBEDML+3,X'F0'     TAKE AWAY SIGN.                      00559000 1112
020CA0 92C3 20F8            000F8   857          MVI   CCBEDML,C'C'        SET CIAM CODE.                       00560000 1112
                                    858          DROP  R2                                                         00561000
020CA4 47F0 C2E2            202E2   859          B     RETURN              -> BACK TO USER CODE.                00562000 324


020CA8                              861 DUMPIT   DS    0H                                                       00564000
                                    862 ERRRET2  LINEDIT TEXT='SPOOL CONS TO * START',DOT=NO,DISP=CPCOMM,       *00565000
                                          RENT=NO                                                              00566000
020CA8                              863+ERRRET2  DS    0H                                                       00099000
020CA8 4510 CCC4            20CC4   864+        BAL   1,DMSA0702                                               00113000 869
020CAC 0085                         865+        DC    AL1(0,133)                FLAG BYTES                     00115000
020CAE 15                           866+DMST0702 DC    AL1(DMSL0702)             LENGTH OF MESSAGE TEXT         00144000 868
020CAF E2D7D6D6D340C3D6             867+        DC    C'SPOOL CONS TO * START'                                 00147000
                            00015   868+DMSL0702 EQU   *-DMST0702-1              TEXT LENGTH                    00150000
020CC4                              869+DMSA0702 DS    0H                                                       00152000
020CC4 0ACB                         870+        SVC   203                                                      00019000
020CC6 FFFA                         871+        DC    H'-6'                                                    00019000
020CC8 9102 C5FA            205FA   872          TM    CIAMFLG1,DUMPSTOR   HERE FROM EXT ITRP X'D1'??          00567000 543 550
020CCC 4710 CCFA            20CFA   873          BO    SKIPFATA            -> YES, SKIP FATAL MESSAGE.          00568000 883
                                    874          LINEDIT TEXT='FATAL CIAM ERROR, DUMP FOLLOWS',RENT=NO            00569000
020CD0 4510 CCF6            20CF6   875+        BAL   1,DMSA0729                                               00113000 880
020CD4 00C1                         876+        DC    AL1(0,193)                FLAG BYTES                     00115000
020CD6 1E                           877+DMST0729 DC    AL1(DMSL0729)             LENGTH OF MESSAGE TEXT         00144000 879
020CD7 C6C1E3C1D340C3C9             878+        DC    C'FATAL CIAM ERROR, DUMP FOLLOWS'                        00147000
                            0001E   879+DMSL0729 EQU   *-DMST0729-1              TEXT LENGTH                    00150000
020CF6                              880+DMSA0729 DS    0H                                                       00152000
020CF6 0ACB                         881+        SVC   203                                                      00019000
020CF8 FFFA                         882+        DC    H'-6'                                                    00019000
020CFA                              883 SKIPFATA DS    0H                                                       00570000
                                    884          LINEDIT TEXT='CIAMUSER DATA AREA',RENT=NO                        00571000
020CFA 4510 CD14            20D14   885+        BAL   1,DMSA0756                                               00113000 890
020CFE 00C1                         886+        DC    AL1(0,193)                FLAG BYTES                     00115000
020D00 12                           887+DMST0756 DC    AL1(DMSL0756)             LENGTH OF MESSAGE TEXT         00144000 889
020D01 C3C9C1D4E4E2C5D9             888+        DC    C'CIAMUSER DATA AREA'                                    00147000
                            00012   889+DMSL0756 EQU   *-DMST0756-1              TEXT LENGTH                    00150000
020D14                              890+DMSA0756 DS    0H                                                       00152000
020D14 0ACB                         891+        SVC   203                                                      00019000
020D16 FFFA                         892+        DC    H'-6'                                                    00019000
                                    893          LINEDIT TEXT='D T.....-.....',DOT=NO,DISP=CPCOMM,RENT=NO,      *00572000
                                          SUB=(HEX,CIAM$DAB,HEX,CIAM$DAE)                                      00573000
020D18 4510 CD3A            20D3A   894+        BAL   1,DMSA0783                                               00113000
020D1C 0885                         895+        DC    AL1(8,133)                FLAG BYTES                     00115000
020D1E 0000000000000000             896+        DC    (2)XL5'00'                                               00019000
020D28 10                           897+DMST0783 DC    AL1(DMSL0783)             LENGTH OF MESSAGE TEXT         00144000 899
020D29 C440E34B4B4B4B4B             898+        DC    C'D T.....-.....'                                        00147000
                            00010   899+DMSL0783 EQU   *-DMST0783-1              TEXT LENGTH                    00150000
020D3A                              900+DMSA0783 DS    0H                                                       00152000
020D3A 9200 1002            00002   901+        MVI   2(1),0                    SET OPTION CODE                00093000
020D3E 41F0 C4F8            204F8   902+        LA    15,CIAM$DAB                                              00017000 463
020D42 BEFF 1003            00003   903+        STCM  15,B'1111',3(1)                                          00015000
020D46 9280 1007            00007   904+        MVI   7(1),128                  SET OPTION CODE                00093000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

020D4A 41F0 C650      20650        905+          LA    15,CIAM$DAE                                          00017000 560
020D4E BEFF 1008      00008        906+          STCM  15,B'1111',8(1)                                      00015000
020D52 0ACB                        907+          SVC   203                                                  00019000
020D54 FFFA                        908+          DC    H'-6'                                                00019000
                                   909           LINEDIT TEXT='CIAM_CB',RENT=NO                             00574000
020D56 4510 CD64      20D64        910+          BAL   1,DMSA0832                                           00113000 915
020D5A 00C1                        911+          DC    AL1(0,193)              FLAG BYTES                   00115000
020D5C 07                          912+DMST0832  DC    AL1(DMSL0832)           LENGTH OF MESSAGE TEXT       00144000 914
020D5D C3C9C1D46DC3C2              913+          DC    C'CIAM_CB'                                           00147000
                            00007  914+DMSL0832  EQU   *-DMST0832-1            TEXT LENGTH                  00150000
020D64                             915+DMSA0832  DS    0H                                                   00152000
020D64 0ACB                        916+          SVC   203                                                  00019000
020D66 FFFA                        917+          DC    H'-6'                                                00019000
020D68 5820 C4F8      204F8        918           L     R2,SAVECB@              R2 = ADDR(CIAM_CB)           00575000 464
                            00000  919           USING CIAMCB,R2               ADDRESS IT IN ASSEMBLER      00576000 1051
020D6C 1842                        920           LR    R4,R2                   COPY R2 OVER                 00577000
020D6E 5A40 2000      00000        921           A     R4,CCBLEN               ADD IN LENGTH OF CIAM_CB     00578000 1058
                                   922           LINEDIT TEXT='D T......-......',DOT=NO,RENT=NO,DISP=CPCOMM, *00579000
                                                       SUB=(HEX,(R2),HEX,(R4))                              00580000
020D72 4510 CD94      20D94        923+          BAL   1,DMSA0859                                           00113000
020D76 0865                        924+          DC    AL1(8,133)              FLAG BYTES                   00115000
020D78 0000000000000000            925+          DC    (2)XL5'00'                                           00019000
020D82 10                          926+DMST0859  DC    AL1(DMSL0859)           LENGTH OF MESSAGE TEXT       00144000 928
020D83 C440E34B4B4B4B4B            927+          DC    C'D T......-......'                                  00147000
                            00010  928+DMSL0859  EQU   *-DMST0859-1            TEXT LENGTH                  00150000
020D94                             929+DMSA0859  DS    0H                                                   00152000
020D94 9200 1002      00002        930+          MVI   2(1),0                  SET OPTION CODE              00093000
020D98 BE2F 1003      00003        931+          STCM  R2,B'1111',3(1)                                      00015000
020D9C 9280 1007      00007        932+          MVI   7(1),128                SET OPTION CODE              00093000
020DA0 BE4F 1008      00008        933+          STCM  R4,B'1111',8(1)                                      00015000
020DA4 0ACB                        934+          SVC   203                                                  00019000
020DA6 FFFA                        935+          DC    H'-6'                                                00019000
                                   936           LINEDIT TEXT='PSW, XCR, GPR',RENT=NO                       00581000
020DA8 4510 CDBC      20DBC        937+          BAL   1,DMSA0908                                           00113000 942
020DAC 00C1                        938+          DC    AL1(0,193)              FLAG BYTES                   00115000
020DAE 0D                          939+DMST0908  DC    AL1(DMSL0908)           LENGTH OF MESSAGE TEXT       00144000 941
020DAF D7E2E66B40E7C3D9            940+          DC    C'PSW, XCR, GPR'                                     00147000
                            0000D  941+DMSL0908  EQU   *-DMST0908-1            TEXT LENGTH                  00150000
020DBC                             942+DMSA0908  DS    0H                                                   00152000
020DBC 0ACB                        943+          SVC   203                                                  00019000
020DBE FFFA                        944+          DC    H'-6'                                                00019000
                                   945           LINEDIT TEXT='D PSW X G',DOT=NO,RENT=NO,DISP=CPCOMM        00582000
020DC0 4510 CDD0      20DD0        946+          BAL   1,DMSA0935                                           00113000 951
020DC4 0085                        947+          DC    AL1(0,133)              FLAG BYTES                   00115000
020DC6 09                          948+DMST0935  DC    AL1(DMSL0935)           LENGTH OF MESSAGE TEXT       00144000 950
020DC7 C440D7E2E640E740            949+          DC    C'D PSW X G'                                         00147000
                            00009  950+DMSL0935  EQU   *-DMST0935-1            TEXT LENGTH                  00150000
020DD0                             951+DMSA0935  DS    0H                                                   00152000
020DD0 0ACB                        952+          SVC   203                                                  00019000
020DD2 FFFA                        953+          DC    H'-6'                                                00019000
                                   954           LINEDIT TEXT='IEAVMCF CONTROL STORAGE, IEAVMCF AT ..... ', *00583000
                                                       RENT=NO,SUB=(HEXA,AIEAVMCF)                          00584000
020DD4 4510 CE08      20E08        955+          BAL   1,DMSA0962                                           00113000
020DD8 10C1                        956+          DC    AL1(16,193)             FLAG BYTES                   00115000
020DDA C0                          957+          DC    AL1(DMSC0962)                                        00019000 962
```

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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

020DDB 2B                                 958+DMST0962 DC    AL1(DMSL0962)          LENGTH OF MESSAGE TEXT          00144000 960
020DDC C9C5C1E5D4C3C640                   959+         DC    C'IEAVMCF CONTROL STORAGE, IEAVMCF AT ..... '          00147000
                               0002B      960+DMSL0962 EQU   *-DMST0962-1           TEXT LENGTH                     00150000
020E08                                    961+DMSA0962 DS    0H                                                   00152000
                               000C0      962+DMSC0962 EQU   192                    SUBSTITUTION CODE               00061000
020E08 4100 C504       20504              963+         LA    0,AIEAVMCF                                           00017000 468
020E0C 0ACB                               964+         SVC   203                                                  00019000
020E0E FFFA                               965+         DC    H'-6'                                                00019000

                                          967          LINEDIT TEXT='D T.....-.....',DOT=NO,DISP=CPCOMM,RENT=NO,    *00586000
                                                SUB=(HEXA,AIEASTRT,HEXA,AIEAEND)                                    00587000
020E10 4510 CE32       20E32              968+         BAL   1,DMSA0994                                           00113000
020E14 0885                               969+         DC    AL1(8,133)              FLAG BYTES                   00115000
020E16 0000000000000000                   970+         DC    (2)XL5'00'                                           00019000
020E20 10                                 971+DMST0994 DC    AL1(DMSL0994)           LENGTH OF MESSAGE TEXT       00144000 973
020E21 C440E34B4B4B4B4B                   972+         DC    C'D T.....-.....'                                    00147000
                               00010      973+DMSL0994 EQU   *-DMST0994-1            TEXT LENGTH                  00150000
020E32                                    974+DMSA0994 DS    0H                                                   00152000
020E32 9240 1002       00002              975+         MVI   2(1),64                 SET OPTION CODE              00093000
020E36 41F0 C508       20508              976+         LA    15,AIEASTRT                                          00017000 469
020E3A BEF7 1003       00003              977+         STCM  15,B'0111',3(1)                                      00015000
020E3E 92C0 1006       00006              978+         MVI   6(1),192                SET OPTION CODE              00093000
020E42 41F0 C50C       2050C              979+         LA    15,AIEAEND                                           00017000 470
020E46 BEF7 1007       00007              980+         STCM  15,B'0111',7(1)                                      00015000
020E4A 0ACB                               981+         SVC   203                                                  00019000
020E4C FFFA                               982+         DC    H'-6'                                                00019000
                                          983          LINEDIT TEXT='SAVEAREA',RENT=NO                            00588000
020E4E 4510 CE5E       20E5E              984+         BAL   1,DMSA1043                                           00113000 989
020E52 00C1                               985+         DC    AL1(0,193)              FLAG BYTES                   00115000
020E54 08                                 986+DMST1043 DC    AL1(DMSL1043)           LENGTH OF MESSAGE TEXT       00144000 988
020E55 E2C1E5C5C1D9C5C1                   987+         DC    C'SAVEAREA'                                          00147000
                               00008      988+DMSL1043 EQU   *-DMST1043-1            TEXT LENGTH                  00150000
020E5E                                    989+DMSA1043 DS    0H                                                   00152000
020E5E 0ACB                               990+         SVC   203                                                  00019000
020E60 FFFA                               991+         DC    H'-6'                                                00019000
                                          992          LINEDIT TEXT='D T.....-.....',DOT=NO,DISP=CPCOMM,RENT=NO,    *00589000
                                                SUB=(HEX,SAVEAREA,HEX,SAVEAREA+72)                                  00590000
020E62 4510 CE84       20E84              993+         BAL   1,DMSA1070                                           00113000
020E66 0885                               994+         DC    AL1(8,133)              FLAG BYTES                   00115000
020E68 0000000000000000                   995+         DC    (2)XL5'00'                                           00019000
020E72 10                                 996+DMST1070 DC    AL1(DMSL1070)           LENGTH OF MESSAGE TEXT       00144000 998
020E73 C440E34B4B4B4B4B                   997+         DC    C'D T.....-.....'                                    00147000
                               00010      998+DMSL1070 EQU   *-DMST1070-1            TEXT LENGTH                  00150000
020E84                                    999+DMSA1070 DS    0H                                                   00152000
020E84 9200 1002       00002             1000+         MVI   2(1),0                  SET OPTION CODE              00093000
020E88 41F0 C2F4       202F4             1001+         LA    15,SAVEAREA                                          00017000 330
020E8C BEFF 1003       00003             1002+         STCM  15,B'1111',3(1)                                      00015000
020E90 9280 1007       00007             1003+         MVI   7(1),128                SET OPTION CODE              00093000
020E94 41F0 C33C       2033C             1004+         LA    15,SAVEAREA+72                                       00017000 330
020E98 BEFF 1008       00008             1005+         STCM  15,B'1111',8(1)                                      00015000
020E9C 0ACB                              1006+         SVC   203                                                  00019000
020E9E FFFA                              1007+         DC    H'-6'                                                00019000
                                         1008          LINEDIT TEXT='SAVE2',RENT=NO                               00591000
020EA0 4510 CEAC       20EAC             1009+         BAL   1,DMSA1119                                           00113000 1014
020EA4 00C1                              1010+         DC    AL1(0,193)              FLAG BYTES                   00115000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

020EA6 05                                1011+DMST1119 DC    AL1(DMSL1119)          LENGTH OF MESSAGE TEXT          00144000 1013
020EA7 E2C1E5C5F2                        1012+         DC    C'SAVE2'                                               00147000
                                 00005   1013+DMSL1119 EQU   *-DMST1119-1           TEXT LENGTH                     00150000
020EAC                                   1014+DMSA1119 DS    0H                                                     00152000
020EAC 0ACB                              1015+         SVC   203                                                    00019000
020EAE FFFA                              1016+         DC    H'-6'                                                  00019000
                                         1017          LINEDIT TEXT='D T......-......',DOT=NO,DISP=CPCOMM,RENT=NO,   *00592000
                                                       SUB=(HEX,SAVE2,HEX,SAVE2+72)                                 00593000
020EB0 4510 CED2       20ED2             1018+         BAL   1,DMSA1146                                             00113000
020EB4 0885                              1019+         DC    AL1(8,133)             FLAG BYTES                      00115000
020EB6 0000000000000000                  1020+         DC    (2)XL5'00'                                             00019000
020EC0 10                                1021+DMST1146 DC    AL1(DMSL1146)          LENGTH OF MESSAGE TEXT          00144000 1023
020EC1 C440E34B4B4B4B4B                  1022+         DC    C'D T......-......'                                    00147000
                                 00010   1023+DMSL1146 EQU   *-DMST1146-1           TEXT LENGTH                     00150000
020ED2                                   1024+DMSA1146 DS    0H                                                     00152000
020ED2 9200 1002       01002             1025+         MVI   2(1),0                 SET OPTION CODE                 00093000
020ED6 41F0 C488       20488             1026+         LA    15,SAVE2                                               00017000 446
020EDA BEFF 1003       00003             1027+         STCM  15,B'1111',3(1)                                        00015000
020EDE 9280 1007       00007             1028+         MVI   7(1),128               SET OPTION CODE                 00093000
020EE2 41F0 C4D0       204D0             1029+         LA    15,SAVE2+72                                            00017000 446
020EE6 BEFF 1008       00008             1030+         STCM  15,B'1111',8(1)                                        00015000
020EEA 0ACB                              1031+         SVC   203                                                    00019000
020EEC FFFA                              1032+         DC    H'-6'                                                  00019000
                                         1033          LINEDIT TEXT='SPOOL CONS CLOSE ',DOT=NO,DISP=CPCOMM,RENT=NO    00594000
020EEE 4510 CF06       20F06             1034+         BAL   1,DMSA1195                                             00113000 1039
020EF2 0885                              1035+         DC    AL1(0,133)             FLAG BYTES                      00115000
020EF4 11                                1036+DMST1195 DC    AL1(DMSL1195)          LENGTH OF MESSAGE TEXT          00144000 1038
020EF5 E2D7D6D6D340C3D6                  1037+         DC    C'SPOOL CONS CLOSE '                                   00147000
                                 00011   1038+DMSL1195 EQU   *-DMST1195-1           TEXT LENGTH                     00150000
020F06                                   1039+DMSA1195 DS    0H                                                     00152000
020F06 0ACB                              1040+         SVC   203                                                    00019000
020F08 FFFA                              1041+         DC    H'-6'                                                  00019000
020F0A 9102 C5FA       205FA             1042          TM    CIAMFLG1,DUMPSTOR      HERE FROM EXT ITRPT X'D1'??     00595000 543 550
020F0E 4710 C472       20472             1043          BO    TOUTEXIT               -> YES, GO BACK.                00596000 437
020F12 9108 C5FA       205FA             1044          TM    CIAMFLG1,TIMEOUT       HOW ABOUT FROM EXT ITRPT X'1004'??  00597000 543 548
020F16 471E 0000       00000             1045          BO    0(R14)                 -> YES, GO BACK.                00598000
020F1A 47F0 C2E2       202E2             1046          B     RETURN                 -> BACK TO USER.                00599000 324
                                         1047          ENTRY CIAMUEND                                               00600000
020F1E                                   1048 CIAMUEND DS    0H                                                     00601000
```

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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                  1050          CIAMCB                                                        00604000
000000                            1051+CIAMCB   DSECT ,                                                      00008000
                                  1052+*                                                                      00010000
                                  1053+*              CIAMCB - CIAM CONTROL BLOCK                             00011000
                                  1054+*                                                                      00012000


000000                            1056+CCBCTRL  DS    0CL8          CIAM CONTROL INFORMATION.                 00014000 ?
                                  1057+*                                                                      00015000
000000                            1058+CCBLEN   DS    AL4           LENGTH OF CONTROL BLOCK.                  00016000
000004                            1059+CCBTOL   DS    F             TIMEOUT LIMIT PER DML STATEMENT.          00017000

000008                            1061+CCBPLIST DS    0CL52         ARG_INFORMATION.                          00019000 ?
                                  1062+*                                                                      00020000
000008                            1063+CCB#ARGS DS    F             NUMBER OF ARGS -- THIS DML.               00021000
                           0000C  1064+#ARGSOFF EQU   *-CIAMCB      OFFSET INTO CIAM CB FOR FIRST ARG.        00022000
00000C                            1065+CCB$ARGS DS    12AL4         ARG LIST.                                 00023000 ?

00003C                            1067+CCBID    DS    0CL56         LITERAL VALUES FOR CIAM ACCESS METHOD.    00025000 ?
                                  1068+*                                                                      00026000
00003C                            1069+CCBSCHEM DS    CL8           NAME OF SCHEMA.                           00027000 ?
000044                            1070+CCBREC   DS    CL16          NAME OF CURRENT RECORD, THIS DML.         00028000 ?
000054                            1071+CCBSET   DS    CL16          NAME OF CURRENT SET, THIS DML.            00029000 ?
000064                            1072+CCBAREA  DS    CL16          NAME OF CURRENT AREA, THIS DML.           00030000 ?

000074 07FA                       1074+CCBBR10  BR    10            BRANCH TO ADDRESS IN REG 10.              00032000 ?

000076                            1076+CCBCOMM  DS    0CL20         COMMUNCIATIONS_PATH.                      00034000 ?
                                  1077+*                                                                      00035000
000076                            1078+CCBUVMID DS    CL8           USER VIRTUAL MACHINE ID.                  00036000
00007E                            1079+CCBUPORT DS    X             USER PORT.                                00037000
00007F                            1080+CCBDVMID DS    CL8           DBMS VIRTUAL MACHINE ID.                  00038000
000087                            1081+CCBDPORT DS    X             DBMS PORT.                                00039000
000088                            1082+CCBMSGID DS    H             MESSAGE ID.                               00040000
00008A                            1083+         DS    CL2           /*PADDING*/                               00041000


00008C                            1085+CCBDBS   DS    0CL100        DB_STATISTICS.                            00043000 ?
                                  1086+*                                                                      00044000
00008C                            1087+CCBDATE  DS    CL8           TODAYS DATE.                              00045000
000094                            1088+CCBTIME  DS    CL8           TODAYS TIME.                              00046000 ?
00009C                            1089+CCBDBSZ  DS    0CL84         FIELDS CIAMSET INITILIZES TO 0.           00047000
00009C                            1090+CCBPGRD  DS    F             PAGES_READ.                               00048000 ?
0000A0                            1091+CCBPGWR  DS    F             PAGES_WRITTEN.                            00049000 ?
0000A4                            1092+CCBPGRQ  DS    F             PAGES_REQUESTED.                          00050000 ?
0000A8                            1093+CCBCTAR  DS    F             CALC_TARGET.                              00051000 ?
0000AC                            1094+CCBCOFLO DS    F             CALC_OVERFLOW.                            00052000 ?
0000B0                            1095+CCBVTAR  DS    F             VIA_TARGET.                               00053000 ?
0000B4                            1096+CCBVOFLO DS    F             VIA_OVERFLOW.                             00054000 ?
0000B8                            1097+CCBLREQ  DS    F             LINES_REQUESTED.                          00055000 ?
0000BC                            1098+CCBRCUR  DS    F             RECS_CURRENT.                             00056000 ?
0000C0                            1099+CCBCTI   DS    F             CALLS_TO_IDMS.                            00057000 ?
0000C4                            1100+CCBFGST  DS    F             FRAGMENTS_STORED.                         00058000 ?
0000C8                            1101+CCBRREL  DS    F             RECS_RELOCATED.                           00059000 ?
0000CC                            1102+CCBLKREQ DS    F             LOCKS_REQUESTED.                          00060000 ?
```

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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

0000D0                           1103+CCBSLHLD DS    F          SEL_LOCKS_HELD.                      00061000 ?
0000D4                           1104+CCBULHLD DS    F          UPD_LOCKS_HELD.                      00062000 ?
0000D8                           1105+         DS    CL24       FILLER.                              00063000
```

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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

                           000F0  1107+#SSCOFF  EQU   *-CIAMCB       OFFSET OF SUBSCHEMA_CTRL FROM CIAM_CB.    00065000
0000F0 .                         1108+CCBSSC   DS    0CL216         SUBSCHEMA_CTRL.                           00066000 ?
                                 1109+*                                                                         00067000
0000F0                           1110+CCBPGM   DS    CL8            PROGRAM NAME.                             00068000 ?
0000F8                           1111+CCBERRST DS    0CL4           ERROR STATUS.                             00069000 ?
0000F8                           1112+CCBEDML  DS    CL2            ERROR DML PART OF ERROR STATUS.           00070000
0000FA                           1113+CCBENO   DS    CL2            ERROR NUMBER PART OF ERROR STATUS.        00071000 ?
0000FC                           1114+CCBDBKEY DS    F              DATABASE KEY.                             00072000 ?
000100                           1115+CCBRNAME DS    CL16           RECORD_NAME.                              00073000 ?
000110                           1116+CCBANAME DS    CL16           AREA_NAME.                                00074000 ?
000120                           1117+CCBESET  DS    CL16           ERROR_SET.                                00075000 ?
000130                           1118+CCBEREC  DS    CL16           ERROR_RECORD.                             00076000 ?
000140                           1119+CCBEAREA DS    CL16           ERROR_AREA.                               00077000 ?
000150                           1120+CCBICOMA DS    0CL100         IDBMSCOM AREA.                            00078000
000150                           1121+CCBICOM  DS    100CL1         IDBMSCOM(100) CHAR(1).                    00079000 ?
0001B4                           1122+CCBDRKEY DS    F              DIRECT_DBKEY.                             00080000 ?
0001B8                           1123+CCBDBST  DS    0CL7           DATABASE_STATUS.                          00081000 ?
0001B8                           1124+CCBDBSC  DS    CL2            DBSTATEMENT_CODE.                         00082000 ?
0001BA                           1125+CCBDBSTS DS    CL2            DBSTATUS_CODE.                            00083000 ?
0001BC                           1126+         DS    CL1            FILLER.                                   00084000
0001C0                           1127+CCBROCC  DS    F              RECORD_OCCUR.                             00085000 ?
0001C4                           1128+CCBDMLSN DS    F              DML_SEQUENCE.                             00086000

                                 1130+* SUBSCHEMA RECORDS WILL FOLLOW.                                          00088000
                           001C8 1131+CCBSECTL EQU   *-CIAMCB       LENGTH OF BLOCK                           00089000 ?
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
                                1133          VMCPARM                                                   00607000
000000                          1134+VMCPARM  DSECT ,                                                   00009000
                                1135+*                                                                  00011000
                                1136+*              VMCPARM - VMCF PARAMETER BLOCK                      00012000
                                1137+*                                                                  00013000
000000                          1138+VMCPFLG1 DS    X             FLAGS                                 00014000 ?
                         00080  1139+VMCPAUTS EQU   X'80'         AUTHORIZE SPECIFIC                    00015000
                         00040  1140+VMCPPRTY EQU   X'40'         PRIORITY                              00016000 ?
000001                          1141+         DS    X             RESERVED                              00017000
000002                          1142+VMCPFUNC DS    H             FUNCTION CODE                         00018000
                         00000  1143+VMCPAUTH EQU   X'0000'       AUTHORIZE                             00019000
                         00001  1144+VMCPUAUT EQU   X'0001'       UNAUTHORIZE                           00020000
                         00002  1145+VMCPSEND EQU   X'0002'       SEND                                  00021000 ?
                         00003  1146+VMCPSENR EQU   X'0003'       SEND/RECV                             00022000
                         00004  1147+VMCPSENX EQU   X'0004'       SENDX                                 00023000 ?
                         00005  1148+VMCPRECV EQU   X'0005'       RECEIVE                               00024000 ?
                         00006  1149+VMCPCANC EQU   X'0006'       CANCEL                                00025000 ?
                         00007  1150+VMCPREPL EQU   X'0007'       REPLY                                 00026000 ?
                         00008  1151+VMCPQUIE EQU   X'0008'       QUIESCE                               00027000 ?
                         00009  1152+VMCPRESM EQU   X'0009'       RESUME                                00028000 ?
                         000A   1153+VMCPIDEN EQU   X'000A'       IDENTIFY                              00029000 ?
                         000B   1154+VMCPRJCT EQU   X'000B'       REJECT                                00030000 ?
                         001F   1155+VMCPUNST EQU   X'001F'       UNSTACK                               00031000
000004                          1156+VMCPMID  DS    0F            MESSAGE ID                            00032000 ?
000004                          1157+VMCPUMID DS    H             USER PORTION OF MESSAGE ID            00033000
000006                          1158+VMCPSRCT DS    X             SOURCE TASK ID                        00034000
000007                          1159+VMCPSNKT DS    X             SINK TASK ID                          00035000
000008                          1160+VMCPUSER DS    CL8           USERID                                00036000
000010                          1161+VMCPVADA DS    A             ADDRESS OF BUFFER A                   00037000
000014                          1162+VMCPLENA DS    A             LENGTH OF BUFFER A                    00038000
000018                          1163+VMCPVADB DS    A             ADDRESS OF BUFFER B                   00039000
00001C                          1164+VMCPLENB DS    F             LENGTH OF BUFFER B                    00040000
000020                          1165+VMCPUSE  DS    XL8           USER DOUBLEWORD                       00041000
                         00028  1166+VMCPLEN  EQU   *-VMCPARM     LENGTH OF BLOCK                       00042000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                            1168          VMCMHDR                                                          00610000
000000                      1169+VMCMHDR  DSECT ,                                                          00009000
                            1170+*                                                                         00011000
                            1171+*              VMCMHDR - VMCF EXTERNAL INTERRUPT HEADER                   00012000
                            1172+*                                                                         00013000
000000                      1173+VMCMSTAT DS    X                                                          00014000
                     00080  1174+VMCMRESP EQU   X'80'         THIS IS FINAL (RESPONSE) IRPT              00015000
                     00040  1175+VMCMRJCT EQU   X'40'         SINK USER REJECTED THIS SEND OR SEND/RECV  00016000
                     00020  1176+VMCMPRTY EQU   X'20'         PRIORITY MESSAGE                           00017000 ?
000001                      1177+VMCMEFLG DS    X               ERROR CODE                               00018000 ?
000002                      1178+VMCMFUNC DS    H               FUNCTION OF ORIGINAL REQUEST             00019000 ?
                     00002  1179+VMCMSEND EQU   X'0002'         SEND                                       00020000 ?
                     00003  1180+VMCMSENR EQU   X'0003'         SEND/RECV                                  00021000 ?
                     00004  1181+VMCMSENX EQU   X'0004'         SENDX                                      00022000 ?
                     0000A  1182+VMCMIDEN EQU   X'000A'         IDENTIFY                                   00023000 ?
000004                      1183+VMCMMID  DS    0F              MESSAGE ID                               00024000 ?
000004                      1184+VMCMUMID DS    H               USER PORTION OF MESSAGE ID               00025000
000006                      1185+VMCMSRCT DS    X               SOURCE TASK ID                           00026000 ?
000007                      1186+VMCMSNKT DS    X               SINK TASK ID                             00027000 ?
000008                      1187+VMCMUSER DS    CL8             USERID                                   00028000
000010                      1188+VMCMVADA DS    A               ADDRESS OF BUFFER A                      00029000 ?
000014                      1189+VMCMLENA DS    F               LENGTH OF BUFFER A                       00030000 ?
000018                      1190+VMCMVADB DS    A               ADDRESS OF BUFFER B                      00031000 ?
00001C                      1191+VMCMLENB DS    F               LENGTH OF BUFFER B                       00032000 ?
000020                      1192+VMCMUSE  DS    XL8             USER DOUBLEWORD                          00033000 ?
                     00028  1193+VMCMLEN  EQU   *-VMCMHDR       LENGTH OF HEADER                         00034000 ?
```

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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                    1195          KSUSECT                                                        00013000
                                    1196+         PUSH  PRINT                                                    00003000
000000                              1197+KSUSECT  DSECT                                                          00007000
000000                              1198+KSURSV   DS    2D        RESERVED                                       00008000
                              00000 1199+KSULABEL EQU   KSURSV,10  DISK LABEL ('CMS=VOLID')                      00009000 ?
000010                              1200+KSUUSER  DS    CL8       USERID                                         00010000
000018                              1201+KSUACNT  DS    CL8       ACCOUNT                                        00011000 ?
000020                              1202+KSUSSN   DS    F         SSN (ZERO IF ACNT BEGINS WITH Z)               00012000 ?
000024                              1203+KSUNAME  DS    CL20      NAME (ZERO IF NOT YET OBTAINED)                00013000 ?
000038                              1204+KSUSEQ   DS    CL8       LAST SEQUENCE NUMBER (ZERO IF NONE)            00014000 ?
000040                              1205+KSUPASW  DS    CL8       PASS WORD (ZERO IF NOT YET OBTAINED)           00015000 ?
000048                              1206+KSUUNUS1 DS    CL4       UNUSED                                         00016000 ?
00004C                              1207+KSUSPCON DS    CL4       LAST CONSOLE SPOOLID (ZERO IF NONE)            00017000 ?
000050                              1208+KSUKSSCT DS    A         ADDRESS OF KSUSECT                             00018000 ?
000054                              1209+KSUFMSCT DS    A         POINTER TO FMSECT                              00019000 ?
000058                              1210+KSUMFSCT DS    A         POINTER TO SMFSECT                             00020000 ?
00005C                              1211+KSULSSCT DS    A         ADDRESS OF END OF KSU'S SECTS                  00021000 ?
000060                              1212+KSUUNUS2 DS    C         UNUSED                                         00022000 ?
000061                              1213+KSUFLAG1 DS    X         FLAGS                                          00023000 ?
                              00080 1214+KSUCHNG  EQU   X'80'     KSU'S SECTS SHOULD BE REWRITTEN                00024000 ?
                              00040 1215+KSUNOWRT EQU   X'40'     KSU'S SECTS SHOULD NEVER BE REWRITTEN          00025000 ?
                              00020 1216+KSUTNAME EQU   X'20'     NAME GOTTEN WAS ASSUMED                        00026000 ?
                              00010 1217+KSUFMRAL EQU   X'10'     AN FMRETR(ALL) HAS BEEN DONE          KM081    00027000 ?
000062                              1218+KSUFLAG2 DS    X                                                        00028000 ?
000063                              1219+KSUFLAG3 DS    X                                                        00029000 ?
000068                              1220+         DS    0D                                                       00030000
                              00068 1221+KSUSECTL EQU   *-KSUSECT                                                00031000 ?
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                ASM 0201 20.32 10/25/81
                                    1223+          POP   PRINT                          00033000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

                                   1225          NUCON                                                          00616000
                                   1226+         PUSH  PRINT                                                    00140000
000000                             1227+NUCON    DSECT                                                          00200000
                                   1228+*                                                                       00350000
                                   1229+***      NUCON - NUCLEUS CONSTANT AREA                                  00360000
                                   1230+*                                                                       00370000
                                   1231+*           0 +--------------------+--------------------+             00380000
                                   1232+*             |       RSTNPSW      |       RSTOPSW      |             00390000
                                   1233+*          10 +--------------------+--------------------+             00400000
                                   1234+*             | ACMSCVT | ASYSREF |       EXTOPSW      |             00410000
                                   1235+*          20 +--------------------+--------------------+             00420000
                                   1236+*             |       SVCOPSW      |       PGMOPSW      |             00430000
                                   1237+*          30 +--------------------+--------------------+             00440000
                                   1238+*             |       MCKOPSW      |       IOOPSW       |             00450000
                                   1239+*          40 +--------------------+---------+----------+             00460000
                                   1240+*             |         CSW        |   CAW   | NUCRSV1  |             00470000
                                   1241+*          50 +---------+----------+---------+---------+             00480000
                                   1242+*             |  TIMER  | NUCRSV2  |       EXTNPSW      |             00490000
                                   1243+*          60 +---------+----------+--------------------+             00500000
                                   1244+*             |       SVCNPSW      |       PGMNPSW      |             00510000
                                   1245+*          70 +--------------------+--------------------+             00520000
                                   1246+*             |       MCKNPSW      |       IONPSW       |             00530000
                                   1247+*          80 +--------------------+--------------------+             00540000
                                   1248+*             |                NUCRSV3                 |             00550000
                                   1249+*          90 +---------+----+----+---------+----------+             00560000
                                   1250+*             | NUCRSV4 |N*1 |N*2 | PERADDR | MONCODE  |             00570000
                                   1251+*          A0 +---------+----+----+---------+----------+             00580000
                                   1252+*             |               NUCCOPYR                  |  @V62B0H2  00590000
                                   1253+*          C0 +-----------------------------------------+  @V62B0H2  00600000
                                   1254+*             |                                         |            00610000
                                   1255+*             =               LOWSAVE                   =            00620000
                                   1256+*             |                                         |            00630000
                                   1257+*         160 +-----------------------------------------+            00640000
                                   1258+*             |                                         |            00650000
                                   1259+*             =               FPRLOG                    =            00660000
                                   1260+*             |                                         |            00670000
                                   1261+*         180 +-----------------------------------------+            00680000
                                   1262+*             |                                         |            00690000
                                   1263+*             =               GPRLOG                    =            00700000
                                   1264+*             |                                         |            00710000
                                   1265+*         1C0 +-----------------------------------------+            00720000
                                   1266+*             |                                         |            00730000
                                   1267+*             =               ECRLOG                    =            00740000
                                   1268+*             |                                         |            00750000
                                   1269+*         200 +-----------------------------------------+            00760000
                                   1270+*             |               (CONT)                    |            00770000
                                   1271+*                                                                     00780000
                                   1272+***      NUCON - NUCLEUS CONSTANT AREA                                00790000
                                   1273+*                                                                     00800000
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
1275+*                                                                  00820000
1276+***      NUCON - NUCLEUS CONSTANT AREA                             00830000
1277+*                                                                  00840000
1278+*                 |                (CONT)                        |  00850000
1279+*           200   +--------------------------------------------+   00860000
1280+*                 |                                            |   00870000
1281+*                 =                SYSTEMID                    =   00880000
1282+*                 |                                            |   00890000
1283+*           220   +--------------------------------------------+   00900000
1284+*                 |                                            |   00910000
1285+*                 =                INSTALID                    =   00920000
1286+*                 |                                            |   00930000
1287+*           260   +-------------------+----+----+-------------+   00940000
1288+*                 |      SYSNAME      |N*3 |N*4 | NUCRSV6     |   00950000
1289+*           270   +-------------------+----+----+-------------+   00960000
1290+*                 |                FEIBM                       |   00970000
1291+*           280   +-------------------+-------------------------+   00980000
1292+*                 |     CURRDATE      |     CURRTIME            |   00990000
1293+*           290   +---------+---------+---------+---------------+   01000000
1294+*                 |CURRVIRT |CURRCPUT |LASTVIRT |LASTCPUT     |   01010000
1295+*           2A0   +---------+---------+---------+---------------+   01020000
1296+*                 |     LASTCMND      |     LASTEXEC            |   01030000
1297+*           2B0   +-------------------+-------------------------+   01040000
1298+*                 |     LASTLMOD      |     LASTTMOD            |   01050000
1299+*           2C0   +-------------------+-------------------------+   01060000
1300+*                 |                                            |   01070000
1301+*                 =                                            =   01080000
1302+*                 |                                            |   01090000
1303+*           300   +---------+---------+---------+---------------+   01100000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                   1305+*         MACHINE USAGE                                                    01120000

000000                             1307+IPLPSW    DS    1D -          INITIAL PROGRAM LOADING PSW                  01140000
000008                             1308+IPLCCW1   DS    1D -          INITIAL PROGRAM LOADING CCW1                 01150000 ?
000010                             1309+IPLCCW2   DS    1D -          INITIAL PROGRAM LOADING CCW2                 01160000 ?
000018                    00000    1310+          ORG   IPLPSW                                                     01170000 1307
000000                             1311+RSTNPSW   DS    1D -          PSW RESTART NEW PSW                          01180000 ?
000008                             1312+RSTOPSW   DS    1D -          PSW RESTART OLD PSW                          01190000 ?
000010                             1313+ACMSCVT   DS    1F -          ADDRESS OF SIMULATED OS CVT                  01200000 ?
000014                             1314+ASYSREF   DS    1F -          ADDRESS OF NUCLEUS ADDRESS TABLE             01210000 ?

000018                             1316+EXTOPSW   DS    1D -          EXTERNAL OLD PSW                             01230000 ?
000020                             1317+SVCOPSW   DS    1D -          SUPERVISOR CALL OLD PSW                      01240000 ?
000028                             1318+PGMOPSW   DS    1D -          PROGRAM OLD PSW                              01250000 ?
000030                             1319+MCKOPSW   DS    1D -          MACHINE-CHECK OLD PSW                        01260000 ?
000038                             1320+IOOPSW    DS    1D -          INPUT/OUTPUT OLD PSW                         01270000 ?

000040                             1322+CSW       DS    1D -          CHANNEL STATUS WORD                          01290000 ?
000048                             1323+CAW       DS    1F -          CHANNEL ADDRESS WORD                         01300000 ?

00004C                             1325+NUCRSV1   DS    1F -          RESERVED FOR FUTURE USE                      01320000 ?
000050                             1326+TIMER     DS    1F -          INTERVAL TIMER                               01330000 ?
000054                             1327+NUCRSV2   DS    1F -          RESERVED FOR FUTURE USE                      01340000 ?

000058                             1329+EXTNPSW   DS    1D -          EXTERNAL NEW PSW                             01360000 ?
000060                             1330+SVCNPSW   DS    1D -          SUPERVISOR CALL NEW PSW                      01370000 ?
000068                             1331+PGMNPSW   DS    1D -          PROGRAM NEW PSW                              01380000 ?
000070                             1332+MCKNPSW   DS    1D -          MACHINE-CHECK NEW PSW                        01390000 ?
000078                             1333+IONPSW    DS    1D -          INPUT/OUTPUT NEW PSW                         01400000 ?

000080                             1335+CPULOG    DS    48D -         CPU LOGOUT AREA                              01420000
000200                    00080    1336+          ORG   CPULOG                                                     01430000 1335
000080                             1337+NUCRSV3   DS    2D -          RESERVED FOR FUTURE USE                      01440000 ?
000090                             1338+NUCRSV4   DS    1F -          RESERVED FOR FUTURE USE                      01450000 ?
000094                             1339+MONCLASS  DS    1H -          N*1 - MONITOR CALL CLASS NUMBER              01460000 ?
000096                             1340+PERCODE   DS    1H -          N*2 - PROGRAM EVENT RECORDER CODE            01470000 ?
000098                             1341+PERADDR   DS    1F -          PROGRAM EVENT RECORDER ADDRESS               01480000 ?
00009C                             1342+MONCODE   DS    1F -          MONITOR CALL CODE                            01490000 ?
0000A0                             1343+NUCCOPYR  DS    CL32'COPYRIGHT IBM VM/SP 5664-167' CMS COPYRIGHT@V6BF1H2 01500000 ?

0000C0                             1345+LOWSAVE   DS    XL160 -       SAVE AREA FOR 1ST 160 BYTES OF STORAGE       01520000

000160                             1347+FPRLOG    DS    4D -          FLOATING POINT REGISTER LOGOUT AREA          01540000
000180                             1348+GPRLOG    DS    16F -         GENERAL PURPOSE REGISTER LOGOUT AREA         01550000
0001C0                             1349+ECRLOG    DS    16F -         EXTENDED CONTROL REGISTER LOGOUT AREA        01560000 ?
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                   1352+*         SYSTEM USAGE                                                    01590000

000200                             1354+SYSTEMID DS    CL32 -          SYSTEM NAME AND DATE                        01610000 ?
000220                             1355+INSTALID DS    CL64 -          INSTALLATION IDENTIFICATION                 01620000 ?
000260                             1356+SYSNAME  DS    CL8 -           NAME OF IPLED SAVED SYSTEM                  01630000 ?
000268                             1357+IPLADDR  DS    1H -            N*3 - ADDRESS OF IPLED DEVICE               01640000 ?
00026A                             1358+SYSADDR  DS    1H -            N*4 - ADDRESS OF SYSTEM DISK                01650000 ?
00026C                             1359+DEVICE   DS    1F -            NAME OF DEVICE CAUSING LAST I/O INTERRUPT   01660000 ?
000270                             1360+NUCRSV6  DS    1F -            RESERVED FOR FUTURE USE                     01670000 ?
000274 F5F7F4F9C4D4E2F0            1361+FEIBM    DC    CL12'5749DMS00   ' COMPONENT ID-IPCS REFERENCED @V67CBE4  01680000 ?

000280                             1363+DIAGTIME DS    CL24 -          BUFFER FOR DIAGNOSE TIMER                   01700000
000298                      00280  1364+         ORG   DIAGTIME                                                    01710000 1363
000280                             1365+CURRDATE DS    CL8 -           CURRENT DATE - MM/DD/YY                     01720000 ?
000288                             1366+CURRTIME DS    CL8 -           CURRENT TIME - HH.MM.SS                     01730000 ?
000290                             1367+CURRVIRT DS    1F -            CURRENT ELAPSED VIRTUAL TIME USED           01740000 ?
000294                             1368+CURRCPUT DS    1F -            CURRENT ELAPSED CPU TIME USED               01750000 ?
000298                             1369+LASTVIRT DS    1F -            PREVIOUS ELAPSED VIRTUAL TIME USED          01760000 ?
00029C                             1370+LASTCPUT DS    1F -            PREVIOUS ELAPSED CPU TIME USED              01770000 ?

0002A0 4040404040404040            1372+LASTCMND DC    CL8' ' -        LAST COMMAND ISSUED                         01790000 ?
0002A8 4040404040404040            1373+PREVCMND DC    CL8' ' -        NEXT TO LAST COMMAND                        01800000 ?
0002B0 4040404040404040            1374+LASTEXEC DC    CL8' ' -        LAST EXEC PROCEDURE                         01810000 ?
0002B8 4040404040404040            1375+PREVEXEC DC    CL8' ' -        NEXT TO LAST EXEC                           01820000 ?

0002C0 4040404040404040            1377+LASTLMOD DC    CL8' '          LAST MODULE LOADMODED INTO MAIN STORAGE     01840000 ?
0002C8 C1C3C3C5E2E24040            1378+LASTTMOD DC    CL8'ACCESS'     LAST MODULE LOADMODED INTO TRANSIENT AREA   01850000 ?

0002D0 0000000000000000            1380+DATIPCMS DC    D'0'            DATE (MM/DD/YY) AT LAST IPL CMS             01870000 ?
0002D8 0000000000000000            1381+CLKVALMD DC    D'0'            TIME (STCK FORM) AT MIDNIGHT (0000 HOURS)   01880000 ?

                                   1383+*         MACRO AND TEXT LIBRARY POINTERS                                 01900000
0002E0 0000000000000000            1384+MACDIRC  DC    8A(0) -         ADDRESS OF MACRO LIBRARY DIRECTORIES        01910000 ?
000300 FFFFFFFFFFFFFFFF            1385+MACLIBL  DC    18F'-1' -       CURRENT MACRO LIBRARY NAMES                 01920000 ?
000348 00000000                    1386+TXLIBSV  DC    F'0'            LIBE SAVE AREA TXTLIBS          @VM04102    01930000 ?
00034C 00000000                    1387+MACLBSV  DC    F'0'            LIBE SAVE AREA MACLIBS          @VM04102    01940000 ?
000350 00000000                    1388+TOTLIBS  DC    F'0'            TOTAL GLOBAL CHAINS (BYTES)     @VM04102    01950000 ?
000354 00000000                    1389+TXTDIRC  DC    A(0) -          ADDRESS OF TEXT LIBRARY DIRECTORIES         01960000 ?
000358 FFFFFFFFFFFFFFFF            1390+TXTLIBS  DC    18F'-1' -       CURRENT TEXT LIBRARY NAMES                  01970000 ?

                                   1392+*         DEBUG DUMP PARAMETERS                                           01990000
0003A0                             1393+DUMPLIST DS    0D -            DEBUG DUMP PARAMETER LIST                   02000000 ?
0003A0 00000180                    1394+GRS015   DC    A(GPRLOG) -     ADDRESS OF GPR SAVE AREA                    02010000 ? 1348
0003A4 000000C0                    1395+LOC0176  DC    A(LOWSAVE) -    ADDRESS OF LOW CORE SAVE AREA               02020000 ? 1345
0003A8 00000000                    1396+FIRSTDMP DC    A(0) -          ADDRESS OF FIRST LOCATION TO DUMP           02030000 ?
0003AC 00000000                    1397+LASTDMP  DC    A(0) -          ADDRESS OF LAST LOCATION TO DUMP            02040000 ?
0003B0 00000160                    1398+FRS06    DC    A(FPRLOG) -     ADDRESS OF FPR SAVE AREA                    02050000 ? 1347
0003B4 000003BC                    1399+DMPTIT   DC    A(DMPTITLE) -   ADDRESS OF DUMP TITLE LINE                 02060000 ? 1401
0003B8 FFFFFFFF                    1400+         DC    4X'FF' -        RESERVED FOR FUTURE USE                     02070000
0003BC 4040404040404040            1401+DMPTITLE DC    CL132' ' -      DUMP TITLE LINE                             02080000

000440 00000000                    1403+GLBLTABL DC    F'0'            RESERVED                                    02100000 ?
000444 0000                        1404+         DC    H'0'            RESERVED FOR ALIGNMENT                      02110000

000446 0ACA                        1406+SVC$202  SVC   202             COMMON SVC FOR REENTRANT CODE               02130000 ?
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

000448 0000044C                  1407+ERR$202  DC    A(*+4)          USER WILL FILL IN IF NECESSARY                02140000 ?
00044C 07FE                      1408+         BR    14              RETURN TO CALLER                             02150000

00044E 0000                      1410+         DC    H'0'            RESERVED FOR FUTURE USE                      02170000


                                 1413+*        BATCH MONITOR INFORMATION                                          02200000
000450 00                        1414+BATFLAGS DC    1X'00' -        BATCH FLAGS                                  02210000 ?
                        00080    1415+BATRUN   EQU   X'80' -        BATCH MONITOR RUNNING                        02220000 ?
                        00040    1416+BATLOAD  EQU   X'40' -        LOADING BATCH PROCESSOR                      02230000 ?
                        00020    1417+BATNOEX  EQU   X'20' -        SUPPRESS USER JOB EXECUTION                  02240000 ?
                        00010    1418+BATRERR  EQU   X'10' -        BATCH READER ERROR                           02250000 ?
                        00008    1419+BATCPEX  EQU   X'08' -        CP COMMAND EXECUTING                         02260000 ?
                        00004    1420+BATUSEX  EQU   X'04' -        USER JOB EXECUTING                           02270000 ?
                        00002    1421+BATMOVE  EQU   X'02' -        MOVEFILE EXECUTING FROM TERMINAL             02280000 ?
                        00001    1422+BATTERM  EQU   X'01' -        USER JOB BEING FLUSHED                       02290000 ?

000451 00                        1424+BATFLAG2 DC    1X'00' -        MORE BATCH FLAGS                             02310000 ?
                        00080    1425+BATXLIM  EQU   X'80' -        USER JOB LIMIT EXCEEDED                      02320000 ?
                        00040    1426+BATXCPU  EQU   X'40' -        CPU TIME EXCEEDED                            02330000 ?
                        00020    1427+BATXPRT  EQU   X'20' -        NO. PRINTED LINES EXCEEDED                   02340000 ?
                        00010    1428+BATXPUN  EQU   X'10' -        NO. PUNCHED CARDS EXCEEDED                   02350000 ?
                        00008    1429+BATDCMS  EQU   X'08' -        DISABLED CMS COMMAND CALLED                  02360000 ?
                        00004    1430+BATIPLSS EQU   X'04' -        BATCH IPLING SAVED SYSTEM                    02370000 ?
                        00002    1431+BATSTOP  EQU   X'02' -        BATCH STOPPING AFTER CURRENT JOB             02380000 ?
                        00001    1432+BATSYSAB EQU   X'01'          SYSTEM ABEND IN PROCESS          @VA05162    02390000 ?
000452 00                        1433+BATFLAG3 DC    1X'00'          MORE BATCH FLAGS                 @VA12384    02400000 ?
                        00080    1434+BATCPFNG EQU   X'80'          CPF LINK FAILURE                 @VA12384    02403000 ?
000453 00                        1435+         DC    1X'00' -        RESERVED FOR FUTURE USE          @VA12384    02406000

                                 1437+*                            BATCH PROCESSOR ENTRY POINTS                 02420000
000454 00000000                  1438+ABATPROC DC    A(0) -          MAIN ENTRY                                   02430000 ?
000458 00000000                  1439+ABATABND DC    A(0) -          USER JOB ABEND ENTRY                         02440000 ?
00045C 00000000                  1440+ABATLIMT DC    A(0) -          USER JOB LIMITS TABLE                        02450000 ?
000460 00000000                  1441+AUSERRST DC    A(0)        VIRTUAL MACHINE RESTART ENTRY POINT  @V60C5BE    02460000 ?
000464 00000000                  1442+NUSERFWD DC    F'0'          FULLWORD FOR EXCLUSIVE USE OF USER @VMI0066    02470000 ?
000468 00000000                  1443+AKSUSECT DC    A(0) -          POINTER TO MUCH KSU INFORMATION      KM050    02481000

                                 1445+*        DOS LIBRARY POINTERS                                               02500000
00046C 00000000                  1446+DOSLBSV  DC    F'0'               LIBE SAVE AREA DOSLIBS        @VM04102    02510000 ?
000470 000000000000000           1447+DOSDIRC  DC    8A(0) -         ADDRESS OF DOS LIBRARY DIRECTORIES           02520000 ?
000490 FFFFFFFFFFFFFFFF          1448+DOSLIBL  DC    18F'-1' -       CURRENT DOS LIBRARY NAMES                    02530000 ?
0004D8 00                        1449+DOSFLAGS DC    X'00' -         DOS SIMULATION FLAGS                         02540000 ?
                        00080    1450+DOSMODE  EQU   X'80' -        DOS ENVIRONMENT FLAG                         02550000 ?
                        00040    1451+DOSSVC   EQU   X'40' -        DOS SVC SIMULATION FLAG                      02560000 ?
                        00020    1452+DOSVSAM  EQU   X'20' -        DOS VSAM RUNNING FLAG                        02570000 ?
                        00010    1453+DOSCOMP  EQU   X'10' -        DOS COMPILER RUNNING FLAG                    02580000 ?
                        00008    1454+DOSPIO   EQU   X'08'          DOS PRINTER INDICATOR                        02590000 ?
                        00004    1455+VSMINSTL EQU   X'04'          VSAM INSTAL FLAG TO RELOCATE DCSS TABLE      02600000 ?
0004D9 00                        1456+DOSRC    DC    X'00' -         DOS RETURN CODE TO USER                      02610000 ?
0004DA 0000                      1457+         DC    2X'00' -        RESERVED FOR FUTURE USE                      02620000
0004DC 00000000                  1458+ALTASAVE DC    V(LTASAVE)    - ADDRESS OF LTA SAVE AREA                     02630000 ? -
0004E0 00000000                  1459+ABGCOM   DC    V(BGCOM)      - ADDRESS OF PARTITION COMM. REGION            02640000 ? -
0004E4 00000000                  1460+ASYSCOM  DC    V(SYSCOM)     - ADDRESS OF SYSTEM COMM. REGION               02650000 ? -
0004E8 00000000                  1461+ADOSDCSS DC    A(0) -          ADDRESS OF DOS DCSS                          02660000 ?
```

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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

0004EC 00000000                  1462+SVC12SAV DC    F'0' -          WORK AREA FOR SVC12                        02670000 ?
0004F0 00000000                  1463+DOSFIRST DC    A(0) -          ADDRESS OF FIRST DOSCB IN CHAIN            02680000 ?
0004F4 0000                      1464+DOSNUM   DC    H'0' -          NUMBER DOSCB'S IN CHAIN                    02690000 ?
0004F6 0000                      1465+DOSKPART DC    H'0' -          NUMBER K-BYTES IN DOS PARTITION            02700000 ?
0004F8 00000000                  1466+APPSAVE  DC    V(PPSAVE)    -  ADDRESS OF PROB. PROG. SAVE AREA           02710000 ? -
0004FC 00000000                  1467+DOSTRANS DC    A(0)            ADDRESS OF DOS TRANSIENT AREA              02720000 ?

                                 1469+*        FREE STORAGE POINTERS                                            02740000
000500 00000000                  1470+MAINLIST DC    A(0) -          ADDR 1ST BLK USER FREE STORAGE             02750000 ?
000504 00000000                  1471+MAINSTRT DC    V(USERAREA)  -  ADDRESS OF THE START OF USER FREE STORAGE  02760000 ? -
000508 00000000                  1472+FREELIST DC    V(NUCEND)    -    ADDRESS OF 1ST BLOCK OF SYSTEM STORAGE  02770000 ? -
00050C 00000001                  1473+FREENUM  DC    F'1' -          NUMBER OF BLOCKS OF SYSTEM STORAGE         02780000 ?
000510 00000000                  1474+MAINHIGH DC    V(USERAREA)  -  HIGH EXTEND OF USER FREE STORAGE           02790000 ? -
000514 00000000                  1475+FREELOWE DC    V(NUCEND)    -    LOW EXTEND OF SYSTEM FREE STORAGE      02800000 ? -
000518 00000000                  1476+FREELOWR DC    V(TRANSAR)   -    LOWER LIMIT OF SYSTEM FREE STORAGE     02810000 ? -
00051C 00000000                  1477+FREEUPPR DC    A(0) -          UPPER LIMIT OF SYSTEM FREE STORAGE         02820000 ?
000520 00000000                  1478+ANUCEND  DC    V(NUCEND)    -    ADDRESS OF END OF NUCLEUS STORAGE AREA  02830000 ? -
000524 00000000                  1479+AUSRAREA DC    V(INITSUB)   -  ADDRESS OF BEGINNING OF USER AREA          02840000 ? -
000528 00000000                  1480+CURRSAVE DC    A(0) -          ADDRESS OF CURRENT SAVE AREA               02850000 ?
00052C 0000                      1481+CODE203  DC    H'0' -          CODE NUMBER OF LAST SVC 203                02860000 ?
00052E 0002                      1482+FRERESPG DC    H'2' -          AMOUNT OF USER STORAGE TO RESERVE         *02870000 ?
                                     +                            FOR CMS FREE STORAGE (PAGES: >=2)          02880000
000530 00000000                  1483+ADMSFRT  DC    V(DMSFRT)       DMSFRE WORK AREA                           02890000

                                 1485+* V-CONSTANTS FOR CALLING "ADTLKP/ADTNXT/ADTLKW" VIA BALR CALLS:          02910000
000534 00000000                  1486+VCADTLKP DC    V(DMSLAD)       BALR EQUIVALENT OF "ADTLKP"                02920000 ? -
000538 00000000                  1487+VCADTNXT DC    V(DMSLADN)      BALR EQUIVALENT OF "ADTNXT"                02930000 ? -
00053C 00000000                  1488+VCADTLKW DC    V(DMSLADW)      BALR EQUIVALENT OF "ADTLKW"                02940000 ? -

                                 1490+*        CONSOLE I/O POINTERS                                             02960000
000540 00000000                  1491+CURRIOOP DC    A(0) -          ADDRESS OF CURRENT I/O BUFFER              02970000 ?
000544 00000000                  1492+PENDREAD DC    A(0) -          ADDRESS OF PENDING READ OPERATION          02980000 ?
000548 00000A60                  1493+PENDWRIT DC    A(CONSTACK)  -  ADDRESS OF PENDING WRITE OPERATION         02990000 ? 1726
00054C 00000000                  1494+FSTFINRD DC    A(0) -          ADDRESS OF FINISHED READ BUFFER            03000000 ?
000550 00000000                  1495+LSTFINRD DC    A(0) -          ADDRESS OF LAST FINISHED READ BUFFER       03010000 ?
000554 00000000                  1496+AINTRTBL DC    A(0) -          ADDRESS OF USER INPUT TRANSLATE TABLE      03020000 ?
000558 00000000                  1497+AOUTRTBL DC    A(0) -          ADDRESS OF USER OUTPUT TRANSLATE TABLE     03030000 ?
00055C 0000                      1498+NUMFINRD DC    H'0' -          NUMBER OF FINISHED READ BUFFERS            03040000 ?
00055E 0000                      1499+NUMPNDWR DC    H'0' -          NUMBER OF PENDING WRITE OPERATIONS         03050000 ?

                                 1501+*        LOADER INFORMATION                                               03070000
000560                           1502+VMSIZE   DS    1F -            VIRTUAL MEMORY SIZE                        03080000 ?
000564 00000000                  1503+ALDRTBLS DC    1F'0'           ADDRESS OF LOADER TABLES                   03090000 ?
000568 00000000                  1504+STRTADDR DC    1F'0'           MODULE STARTING ADDRESS                    03100000 ?
00056C 00000000                  1505+FRSTLOC  DC    1F'0'           MODULE BEGINNING ADDRESS                   03110000 ?
000570 00000000                  1506+LASTLOC  DC    1F'0'           MODULE ENDING ADDRESS                      03120000 ?
000574 00000000                  1507+LOCCNT   DC    1F'0'           LOADER LOCATION COUNTER                    03130000 ?
000578 00000000                  1508+LDRADDR  DC    1F'0'           LOADER RETURN ADDRESS                      03140000 ?
00057C 00000000                  1509+LDRRTCD  DC    1F'0'           LOADER RETURN CODE                         03150000 ?
000580 0000000000000000          1510+PSW      DC    1D'0'           USER'S STARTING PSW                        03160000 ?
000588 00000000                  1511+LDRFLAGS DC    1F'0'           LOADER FLAGS                               03170000 ?
00058C 00000000                  1512+PRHOLD   DC    1F'0'           PSEUDO REGISTER COUNTER                    03180000 ?
000590 0000                      1513+TBENT    DC    H'0'            INITIALIZE TABLE ENTRIES TO                03190000 ?
                                 1514+*                            ZEROES                                     03200000
000592 00                        1515+UNRES    DC    X'00'                                                      03210000 ?
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

000593 00                          1516+MODFLGS  DC    1X'00'        MOD FLAGS                                  03220000 ?
                             00080 1517+NOMAPFLG EQU   X'80'        NOMAP FLAG                                 03230000 ?
                             00040 1518+CLEAROP  EQU   X'40'        CLEAR OPTION FLAG                          03240000 ?
                             00020 1519+MODGNDOS EQU   X'20'        MODULE GENERATED WITH DOS OPTION           03250000 ?
                             00010 1520+MODGNALL EQU   X'10'        MODULE GENERATED WITH ALL OPTION           03260000 ?
                             00008 1521+SYSLOAD  EQU   X'08'        ALLOW LOAD >FREELOWE OR <TRANS   @VA04666 03270000 ?
                             00004 1522+MDPCALL  EQU   X'04'        INDICATE CALL FROM DMSMDP                  03280000 ?
                             00002 1523+MOD6     EQU   X'02'        RESERVED FOR FUTURE USE                    03290000 ?
                             00001 1524+MOD7     EQU   X'01'        RESERVED FOR FUTURE USE                    03300000 ?
000594 00000000                    1525+GET1     DC    1F'0'         DMSLSY R1 SAVE LOC                         03310000 ?
000598 0000000000000000            1526+DSYM     DC    2F'0' -       DMSLSY WORK SPACE                          03320000 ?
0005A0 00000000                    1527+JSYM     DC    F'0' -        DMSLSY UNIQUE SYMBOL BASE                  03330000 ?
0005A4 E9                          1528+NXTSYM   DC    C'Z' -        1ST CHAR OF UNIQUE SYMBOL                  03340000 ?
0005A5 00000000000000              1529+         DC    XL7'0' -      REST OF UNIQUE SYMBOL                      03350000
0005AC 00000000                    1530+ALIASENT DC    1F'0'         ALIAS ENTRY POINT (DYNAMIC LOAD)           03360000 ?
0005B0 00000000                    1531+DYNAEND  DC    1F'0'         MAX. LOAD LOC (DYNAMIC LOAD)               03370000 ?
0005B4 00000000                    1532+OSMODLDW DC    F'0'          SIZE OF OS SIM. IN DWORDS        @VA05055 03380000 ?

                                   1534+*        OS SIMULATION POINTERS                                         03400000

0005B8 00000000                    1536+LABFIRST DC    A(0) -        ADDRESS OF FIRST LABSECT                   03420000 ?
0005BC 0000                        1537+LABNUM   DC    H'0' -        NUMBER OF LABSECT'S                        03430000 ?
0005BE 0000                        1538+         DC    H'0' -        RESERVED HALFWORD                          03440000
0005C0                             1539+FCBTAB   DS    0D -          FCB CHAIN ANCHOR                           03450000 ?
0005C0 00000000                    1540+FCBFIRST DC    A(0) -        ADDRESS OF FIRST FCB                       03460000 ?
0005C4 0000                        1541+FCBNUM   DC    H'0' -        NUMBER OF FCB'S IN CHAIN                   03470000 ?
0005C6 00                          1542+         DC    X'00' -       RESERVED FOR WPL  ****************       03480000
0005C7 00                          1543+OSSFLAGS DC    X'00' -       OS SIMULATION FLAGS                        03490000 ?
                             00080 1544+COMPSWT  EQU   X'80' -       COMPILER SWITCH                            03500000 ?
                             00040 1545+OSSMNU   EQU   X'40' -       DMSSMN UNCONDITIONAL FLAG                  03510000 ?
                             00020 1546+OSRESET  EQU   X'20' -                                                  03520000 ?
                             00010 1547+OSWAIT   EQU   X'10'                                                    03530000 ?
                             00008 1548+DYLD     EQU   X'08' -       DYNAMIC LOADING IN PROCESS                 03540000 ?
                             00004 1549+DYLIBO   EQU   X'04' -       OMIT DYNAMIC LIBRARY SCAN                  03550000 ?
                             00002 1550+DYLIBNOW EQU   X'02' -       DYNAMIC LIBRARY SCAN                       03560000 ?
                             00001 1551+DYMBRNM  EQU   X'01' -       LINKED VIA MEMBER NAME                     03570000 ?
0005C8 00000000                    1552+ATLBMODL DC    A(0) -        ADDRESS OF TAPE LABEL PROCESSOR            03580000 ?
0005CC 00000000                    1553+LINKLAST DC    A(0) -        ADDRESS OF LAST OS LINKAGE BLOCK           03590000 ?
0005D0 00000000                    1554+LINKSTRT DC    A(0) -        ADDRESS OF ENTRY POINT OF LAST MODULE      03600000 ?
0005D4 00000000                    1555+TAXEADDR DC    A(0) -        TERMINAL ATTENTION EXIT ELEMENT ADDRESS    03610000 ?
0005D8 00000000                    1556+ATSOCPPL DC    V(CPPL)   -     ADDRESS OF TMP PLIST FOR TSO PROGRAMS      03620000 ? -
0005DC 00000000                    1557+DCBSAV   DC    1F'0'         DCB RESTORATION ADDRESS                    03630000 ?

                                   1559+*        SWITCHES                                                       03650000
0005E0 00                          1560+OPTFLAGS DC    1X'00' -      OPTION FLAGS                               03660000 ?
                             00080 1561+NOIMPEX  EQU   X'80' -       NO IMPLIED EXEC COMMANDS                   03670000 ?
                             00040 1562+NOIMPCP  EQU   X'40' -       NO IMPLIED CP COMMANDS                     03680000 ?
                             00020 1563+NOSTDSYN EQU   X'20' -       NO STANDARD SYNONYMS                       03690000 ?
                             00010 1564+NOABBREV EQU   X'10' -       NO COMMAND ABBREVIATIONS                   03700000 ?
                             00008 1565+NOPAGREL EQU   X'08' -       NO AUTOMATIC PAGE RELEASE                  03710000 ?
                             00004 1566+NOVMREAD EQU   X'04' -       NO AUTOMATIC VM CONSOLE READ               03720000 ?

0005E1 00                          1568+MISFLAGS DC    1X'00' -      MISCELLANEOUS FLAGS                        03740000 ?
                             00080 1569+KXSWITCH EQU   X'80' -       KILL EXECUTION SWITCH                      03750000 ?
                             00040 1570+KOSWITCH EQU   X'40' -       KILL TRACING SWITCH                        03760000 ?
```

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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT
                            00020 1571+RELPAGES EQU   X'20' -      RELEASE PAGES SWITCH                              03770000 ?
                            00010 1572+GRAFDEV  EQU   X'10' -      GRAPHICS CONSOLE                                  03780000 ?
                            00008 1573+QSWITCH  EQU   X'08' -      QUIET SW FOR CRD                                  03790000 ?
                            00004 1574+NODDSK   EQU   X'04' -      DON'T ACCESS D DISK..                             03800000 ?
                            00002 1575+NEGITS   EQU   X'02'        NEGATIVE RETURN CODE FROM DMSITS                  03810000 ?
                            00001 1576+ATTNHIT  EQU   X'01'            ATTENTION POSTED              @VA05051 03820000 ?

0005E2 00                         1578+MSGFLAGS DC    1X'00' -      MESSAGE FLAGS                                     03840000 ?
                            00080 1579+NOTYPOUT EQU   X'80' -      NO TYPING - SET BY EXEC                           03850000 ?
                            00040 1580+NOTYPING EQU   X'40' -      NO TYPING - SET BY KT                             03860000 ?
                            00020 1581+NORDYMSG EQU   X'20' -      NO READY MESSAGE TO BE TYPED                      03870000 ?
                            00010 1582+NORDYTIM EQU   X'10' -      NO TIME ON READY MESSAGE                          03880000 ?
                            00008 1583+REDERRID EQU   X'08' -      ERROR CODE TO BE TYPED IN RED                     03890000 ?
                            00004 1584+NOERRMSG EQU   X'04' -      NO ERROR MESSAGES TO BE TYPED                     03900000 ?
                            00002 1585+NOERRTXT EQU   X'02' -      NO TEXT ON ERROR MESSAGES                         03910000 ?
                            00001 1586+SPECLF   EQU   X'01' -      LINEFEED FOR TYPEWRITER CCW                       03920000 ?

0005E3 00                         1588+DBGFLAGS DC    1X'00' -      DEBUG FLAGS                                       03940000 ?
                            00080 1589+DBGEXEC  EQU   X'80' -      DEBUG EXECUTING                                   03950000 ?
                            00040 1590+DBGPGMCK EQU   X'40' -      DEBUG ENTERED BY A PROGRAM CHECK                  03960000 ?
                            00020 1591+DBGEXINT EQU   X'20' -      DEGUB ENTERED BY AN EXTERNAL INTERRUPT            03970000 ?
                            00010 1592+DBGABN   EQU   X'10' -               DEBUG ENTERED FROM DMSABN                03980000 ?
                            00008 1593+DBGNSHR  EQU   X'08' -      NO SHARED-SEGMENT PRESENT                         03990000 ?
                            00004 1594+DBGSHR   EQU   X'04' -      SHARED-SEGMENT PRESENT                            04000000 ?
                            00002 1595+DBGRECUR EQU   X'02' -      RECURSION FLAG                                    04010000 ?

0005E4 00                         1597+         DC    1X'00' -      RESERVED                                KM050 04031000

0005E5 00                         1599+KSUFLAGS DC    1X'00' -      MISCELLANEOUS KSU DEFINED FLAGS         KM050 04033000
                            00080 1600+MODE6OK  EQU   X'80' -      MODE NUMBER 6 FILES MAY BE PROCESSED    KM050 04034000 ?
                            00040 1601+SUPRDYMS EQU   X'40' -      SUPPRESS RDYMSG FOR CURRENT COMMAND     KM050 04035000 ?
                            00020 1602+CMSRUNOF EQU   X'20' -      DON'T CONTINUE TO RUN WHILE ATTN UP     KM074 04036000 ?
                            00010 1603+FMRUN    EQU   X'10' -      FILE MANAGER IS CURRENTLY EXECUTING     KM075 04037000

0005E6 00                         1605+EXECFLAG DC    1X'00' -      EXEC FLAGS                                        04050000 ?
                            00080 1606+EXECRUN  EQU   X'80' -      EXEC COMMAND RUNNING                              04060000 ?

0005E7 00                         1608+PROTFLAG DC    1X'00' -      STORAGE PROTECTION FLAGS                          04080000 ?
                            00080 1609+PRFPOFF  EQU   X'80' -      STORAGE PROTECTION IS SHUT OFF                    04090000 ?
                            00040 1610+PRFTSYS  EQU   X'40' -      SYSTEM ROUTINE IN TRANSIENT AREA                  04100000 ?
                            00020 1611+PRFUSYS  EQU   X'20' -      SYSTEM ROUTINE IN USER AREA                       04110000 ?

0005E8 00                         1613+TSOFLAGS DC    1X'00' -      TSO FLAG BYTE                                     04130000 ?
                            00080 1614+TSOATCNL EQU   X'80' -      READ CANCELED BY ATTENTION                        04140000 ?

0005E9 00                         1616+SUBFLAG  DC    1X'00' -      CMS SUBSET FLAG-BYTE                              04160000 ?
                            00008 1617+SUBREJ   EQU   X'08'        SUBSET COMMAND REJECT                             04170000 ?
                            00004 1618+SUBRTN   EQU   X'04' -      SUBSET-RETURN                                     04180000 ?
                            00002 1619+SUBINIT  EQU   X'02' -      SUBSET INITIALIZATION                             04190000 ?
                            00001 1620+SUBACT   EQU   X'01' -      SUBSET ACTIVE                                     04200000 ?

0005EA 00                         1622+DCSSFLAG DC    X'00'         DCSS INDICATORS                                   04220000 ?
                            00080 1623+DCSSAVAL EQU   X'80'         CMSSEG SEGMENT EXISTS                             04230000 ?
                            00040 1624+DCSSLDED EQU   X'40'         CMSSEG LOADED                                     04240000 ?
                            00020 1625+DCSSCPNV EQU   X'20'         CP OR NOTVALID COMMAND ISSUED                     04250000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

                           00010  1626+DCSSLDSD EQU   X'10'          LOADING 'S' DISK                        04260000 ?
                           00008  1627+DCSSVTNA EQU   X'08'          SVT MODULE NOT AVAILABLE                04270000 ?
                           00004  1628+DCSSVTLD EQU   X'04'          SVT MODULE IS LOADED                    04280000 ?
                           00002  1629+DCSSOVLP EQU   X'02'          VM STORAGE OVERLAY BY DCSS              04290000 ?
                           00001  1630+DCSSJLNS EQU   X'01'          CMSSEG JUST LOADED NON-SHARED           04300000 ?

0005EB 00                        1632+          DC    X'00'          RESERVED FOR FUTURE USE                 04320000
0005EC 00000000                  1633+ASYSNAMS  DC    V(SYSNAMES)    -                                       04330000 ? -
0005F0 00000000                  1634+ACMSSEG   DC    F'0'           ADR OF CMS SAVED SEGMENT                04340000 ?
0005F4 00000000                  1635+ADMSLIO   DC    V(DMSLIO)                                              04350000 ? -

                                 1637+** V-CONSTANTS FOR CALLING "FSTLKP/FSTLKW" VIA BALR CALLS:              04370000
0005F8 00000000                  1638+VCFSTLKP  DC    V(DMSLFS)      BALR EQUIVALENT OF "FSTLKP"             04380000 ? -
0005FC 00000000                  1639+VCFSTLKW  DC    V(DMSLFSW)     BALR EQUIVALENT OF "FSTLKW"             04390000 ? -
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.32 10/25/81

                                   1641+*         NUCLEUS ADDRESS TABLE                                    04410000

000600                             1643+SYSREF    DS    0D                                                 04430000 ?
000600 00000000                    1644+AFVS      DC    V(FVS)    -                                        04440000 ? -
000604 00000000                    1645+AOPSECT   DC    V(OPSECT)    -                                     04450000 ? -
000608 00000000                    1646+ADEVTAB   DC    V(DEVTAB)    -                                     04460000 ? -
00060C 00000000                    1647+AFSTLKP   DC    V(FSTLKP) -                                        04470000 ? -
000610 00000000                    1648+AGETCLK   DC    V(DMSINM) -                                        04480000 ? -
000614 00000000                    1649+AFSTLKW   DC    V(FSTLKW) -                                        04490000 ? -
000618 00000000                    1650+APIE      DC    V(PIE)    -                                        04500000 ? -
00061C 00000000                    1651+AIADT     DC    V(IADT)    -                                       04510000 ? -
000620 00000000                    1652+AUSER     DC    V(USERSECT)    -                                   04520000 ? -
000624 00000000                    1653+ARDTK     DC    V(DMSDIOR) -                                       04530000 ? -
000628 00000000                    1654+ASCANN    DC    V(DMSSCNN) -                                       04540000 ? -
00062C 00000000                    1655+ASSTAT    DC    A(0) -                                             04550000 ?
000630 00000000                    1656+ATABEND   DC    V(TABEND)    -                                     04560000 ? -
000634 00000000                    1657+ASUBSECT  DC    V(SUBSECT)    -                                    04570000 ? -
000638 00000000                    1658+AOSMODL   DC    A(0)                                               04580000 ?
00063C 00000000                    1659+AWRTK     DC    V(DMSDIOW) -                                       04590000 ? -
000640 00000000                    1660+ASTRINIT  DC    V(DMSSTGST)                                        04600000 ? -
000644 00000000                    1661+IADT      DC    V(ADTSECT)    -                                    04610000 ? -
000648 00000000                    1662+AFREE     DC    V(FREE) -                                          04620000 ? -
00064C 00000000                    1663+AFRET     DC    V(FRET) -                                          04630000 ? -
000650 00000000                    1664+ADMSPIOC  DC    V(DMSPIOCC) -                                      04640000 ? -
000654 00000000                    1665+APGMSECT  DC    V(PGMSECT)    -                                    04650000 ? -
000658 00000000                    1666+AIOSECT   DC    V(IOSECT)    -                                     04660000 ? -
00065C 00000000                    1667+ADMPEXEC  DC    V(DMSDBD) -                                        04670000 ? -
000660 00000000                    1668+ADIOSECT  DC    V(DIOSECT)    -                                    04680000 ? -
000664 00000000                    1669+AABNSVC   DC    V(DMSABNUA)                                        04690000 ? -
000668 00000000                    1670+ADMSERL   DC    V(DMSERL)    -                                     04700000 ? -
00066C 00000000                    1671+ADMSCRD   DC    V(DMSCRD) -                                        04710000 ? -
000670 00000000                    1672+ADMSFREB  DC    V(DMSFREB) -                                       04720000 ? -
000674 00000000                    1673+ASVCSECT  DC    V(SVCSECT)    -                                    04730000 ? -
000678 00000000                    1674+AADTLKP   DC    V(ADTLKP) -                                        04740000 ? -
00067C 00000000                    1675+AUPUFD    DC    V(DMSAUDUP) -                                      04750000 ? -
000680 00000000                    1676+ASTATEXT  DC    A(0) -                                             04760000 ?
000684 00000000                    1677+AOSRET    DC    V(OSRET) -                                         04770000 ? -
000688 00000000                    1678+ACMSRET   DC    V(CMSRET) -                                        04780000 ? -
00068C 00000000                    1679+ASCANO    DC    V(DMSSCNO) -                                       04790000 ? -
000690 00000000                    1680+AEXEC     DC    V(DMSEXC) -                                        04800000 ? -
000694 00000000                    1681+ASTART    DC    V(DMSLDRA)                                         04810000 ? -
000698 00000000                    1682+AADTLKW   DC    V(ADTLKW) -                                        04820000 ? -
00069C 00000000                    1683+AUSABRV   DC    V(USABRV)    -                                     04830000 ? -
0006A0 00000000                    1684+AEXTSECT  DC    V(EXTSECT)    -                                    04840000 ? -
0006A4 00000000                    1685+ASCBPTR   DC    V(SCBPTR)    -                                     04850000 ? -
0006A8 00000000                    1686+ADMSROS   DC    A(0) -                                             04860000 ?
0006AC 0000                        1687+LDMSROS   DC    H'0' -                                             04870000 ?
0006AE 0000                        1688+CDMSROS   DC    H'0' -                                             04880000 ?
0006B0 00000000                    1689+AACTLKP   DC    V(DMSLAF) -                                        04890000 ? -
0006B4 00000000                    1690+AACTNXT   DC    V(DMSLAFNX) -                                      04900000 ? -
0006B8 00000000                    1691+AACTFREE  DC    V(DMSLAFFE) -                                      04910000 ? -
0006BC 00000000                    1692+AACTFRET  DC    V(DMSLAFFT) -                                      04920000 ? -
0006C0 00000000                    1693+AADTNXT   DC    V(ADTNXT)                                          04930000 ? -
0006C4 00000000                    1694+ATRKLKP   DC    V(DMSTRK) -                                        04940000 ? -
0006C8 00000000                    1695+ATRKLKPX  DC    V(DMSTRKX) -                                       04950000 ? -
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
0006CC 00000000                    1696+AQQTRK   DC    V(DMSTQQ) -                04960000 ? -
0006D0 00000000                    1697+AQQTRKX  DC    V(DMSTQQX) -               04970000 ? -
0006D4 00000000                    1698+AERASE   DC    V(DMSERS) -                04980000 ? -
0006D8 00000000                    1699+ATYPSRCH DC    V(TYPSRCH)                 04990000 ? -
0006DC 00000000                    1700+AUPDISK  DC    V(DMSAUD) -                05000000 ? -
0006E0 00000000                    1701+AKILLEX  DC    V(KILLEX)                  05010000 ? -
0006E4 00000000                    1702+ATFINIS  DC    V(DMSFNST) -               05020000 ? -
0006E8 00000000                    1703+ARDBUF   DC    V(DMSBRD) -                05030000 ? -
0006EC 00000000                    1704+AWRBUF   DC    V(DMSBWR) -                05040000 ? -
0006F0 00000000                    1705+AFINIS   DC    V(DMSFNS) -                05050000 ? -
0006F4 00000000                    1706+ASTATE   DC    V(DMSSTTE)                 05060000 ? -
0006F8 00000000                    1707+ASTATEW  DC    V(DMSSTTW)                 05070000 ? -
0006FC 00000000                    1708+APOINT   DC    V(POINT) -                 05080000 ? -
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.32 10/25/81

                                    1710+*         TERMINAL BUFFERS                                                 05100000

000700                              1712+          DS    0D                                                         05120000
000700 0000000060000000             1713+CONCCWS   CCW   0,0,X'60',0    CONSOLE READ AND WRITE CCW                 05130000 ?
000708 0300000020000001             1714+          CCW   3,0,X'20',1    NOP TO GET CE AND DE TOGETHER              05140000

000710 00000000                     1716+CONINBLK  DC    A(0) -                                                     05160000 ?
000714 0A                           1717+          DC    XL1'0A' -                                                  05170000
000715 86                           1718+          DC    AL1(134) -                                                 05180000
000716                              1719+CONINBUF  DS    CL134 -                                                    05190000 ?
0007A0                              1720+          DS    0D                                                         05200000
0007A0                              1721+CMNDLINE  DS    CL160 -                                                    05210000 ?
000840                              1722+          DS    0D                                                         05220000
000840 C5E7C5C340404040             1723+          DC    CL8'EXEC' -                                                05230000
000848                              1724+CMNDLIST  DS    CL536 -                                                    05240000 ?
000A60                              1725+          DS    0D                                                         05250000
000A60                              1726+CONSTACK  DS    CL320 -                                                    05260000


                                    1728+*         SAVE AREAS                                                       05280000

000BA0                              1730+FREESAVE  DS    16F -                                                      05300000 ?
000BE0                              1731+BALRSAVE  DS    16F -                                                      05310000 ?
000C20                              1732+WAITSAVE  DS    16F -                                                      05320000 ?
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

                                  1734+* VSAM AND AMSERV CONTROL WORDS:                                        05340000
000C60                            1735+          DS    0D                                                      05350000
                                  1736+* PERCENT OF AVAILABLE USER STORAGE TO RESERVE                         05360000
                                  1737+* FOR GETVIS/FREEVIS USE WHEN RUNNING VSAM:                           05370000
000C60 0032                       1738+PCTVSAM   DC    H'50' -         50 PERCENT FOR CMS/VSAM USE           05380000 ?
000C62                            1739+          DS    1H -            RESERVED FOR FUTURE USE               05390000
000C64                            1740+          DS    1F -            RESERVED FOR FUTURE USE               05400000

                                  1742+* BEGINNING AND END OF "IKQLAB" (WHEN IN STORAGE):                     05420000
000C68 00FFFFFF                   1743+ADIKQLAB  DC    A(X'FFFFFF') - SET TO A(IKQLAB) WHEN IT IS IN STORAGE 05430000 ?
000C6C 00000000                   1744+NDIKQLAB  DC    A(0) -          SET TO END OF IKQLAB WHEN IN STORAGE  05440000 ?

000C70 00000000                   1746+ALOKTB    DC    A(0) -          LOCK/UNLOCK RESOURCE TABLE      @V6BE0H5 05460000 ?
000C74 00000000                   1747+ADMSVIB   DC    V(DMSVIB) -     ADDR OF VSAM INTERFACE BOOTSTRAP      05470000 ? -
000C78 00000000                   1748+AVIPWORK  DC    A(0) -          ADDRESS OF DMSVIP WORK AREA           05480000 ?
000C7C 00                         1749+VSAMFLG1  DC    X'00' -         VSAM INFORMATION FLAG                 05490000 ?
                         00080    1750+VSAMRUN   EQU   X'80' -         VSAM SYSTEM LOADED                    05500000 ?
                         00040    1751+VSJOBCAT  EQU   X'40' -         VSAM JOB CATALOG ACTIVE               05510000 ?
                         00020    1752+VIPINIT   EQU   X'20' -         DMSVIP HAS BEEN INITIALIZED           05520000 ?
                         00010    1753+VSAMSERV  EQU   X'10' -         CMS/AMS SYSTEM LOADED (AMSERV RUNNING) 05530000 ?
                         00008    1754+VIPSOP    EQU   X'08' -         OS INTERFACE SVC 2 CALL               05540000 ?
                         00004    1755+VIPTCLOS  EQU   X'04' -         OS 'TCLOSE' CALL                      05550000 ?
                         00002    1756+VSAMSOS   EQU   X'02' -         OS AMSERV RUNNING                     05560000 ?
000C7D                            1757+          DS    3X -            RESERVED FOR FUTURE USE               05570000
000C80 00000000                   1758+AVSAMSYS  DC    A(0) -          ADDR OF VSAM SAVED SYSTEM             05580000 ?
000C84 00000000                   1759+AAMSSYS   DC    A(0) -          ADDR OF CMSAMS SAVED SYSTEM           05590000 ?
000C88 00000000                   1760+AVSREOJ   DC    V($$BEOJ4) -    DMSVSR ENTRY POINT FROM VSAM $$BACLOS  05600000 ? -
000C8C 00000000                   1761+AVSRWORK  DC    A(0) -          ADDR OF DMSVSR WORKAREA               05610000 ?
000C90 00000000                   1762+ACBLIST   DC    A(0) -          ACB LIST BUILT BY OPEN/CLOSE          05620000 ?
000C94                            1763+          DS    1F              RESERVED FOR FUTURE USE       @V67CBE4 05630000
000C98 00000000                   1764+AABWSECT  DC    V(DMSABWSE)     POINTER FOR IPCS              @V67CBE4 05640000 ? -
000C9C 00000000                   1765+ADMSZIT   DC    V(DMSZITEP)     POINTER FOR IPCS              @V67CBE4 05650000 ? -
000CA0                            1766+          DS    0D                                                    05660000
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
                        1768+*****************************************************************@V62B0E5 05680000
                        1769+**                                                               @V62B0E5 05690000
                        1770+**        SECONDARY ADDRESS TABLE                                @V62B0E5 05700000
                        1771+**                                                               @V62B0E5 05710000
                        1772+*****************************************************************@V62B0E5 05720000

000CA0 00000000         1774+ADMSTRKA DC    V(DMSTRKAL)     EDF DISK BLOCK ALLOCATE       @V62B0E5 05740000 ? -
000CA4 00000000         1775+ADMSTRKM DC    V(DMSTRKMA)     EDF DISK BLOCK MARKFUNCTION   @V62B0E5 05750000 ? -
000CA8 00000000         1776+ADMSTRKD DC    V(DMSTRKDE)     EDF DISK BLOCK DEALLOCATE     @V62B0E5 05760000 ? -
000CAC 00000000         1777+ADMSALU  DC    V(DMSALU)       ADDR OF RELEASE SUBROUTINE    @V62B0E5 05770000 ? -
000CB0 00000000         1778+ASORTFST DC    V(SORTFST)      ADDR OF SORT FST SUBROUTINE   @V62B0E5 05780000 ? -
000CB4 00000000         1779+ADEVSUP  DC    V(DMSDIOOS)     CR TO OS DEV TYPE CONV TABLE  @V62B0E5 05790000 ? -
000CB8 00000000         1780+ADEVIND  DC    V(DMSDIODI)     DEV CONST TABLE INDEX         @V62B0E5 05800000 ? -
000CBC 00000000         1781+ATBLIND  DC    V(DMSDIOTI)     DEV CONSTANTS TABLE           @V62B0E5 05810000 ? -
000CC0 00000000         1782+ABLKIND  DC    V(DMSDIOBI)     DEV BLKSIZE INDEX             @V62B0E5 05820000 ? -
000CC4 00000000         1783+ALABELRD DC    V(DMSDIOLR)     ADDR OF LABEL READ ROUTINE    @V62B1E5 05830000 ? -
000CC8 00000000         1784+ALABELWR DC    V(DMSDIOLW)     ADDR OF LABEL WRITE ROUTINE   @V62B1E5 05840000 ? -
000CCC 00000000         1785+ADMSLADN DC    V(DMSLADNW)     LOCATE/ADD REQUESTED ADT.     @V62B3H2 05850000 ? -
000CD0 00000000         1786+ADMSBLKR DC    V(DMSEBLKR)     EDF BLOCK READ ROUTINE.       @V62B5H2 05860000 ? -
000CD4 00000000         1787+ADMSBLKW DC    V(DMSEBLKW)     EDF BLOCK WRITE ROUTINE.      @V62B5H2 05870000 ? -
000CD8 00000000         1788+AABBREV  DC    V(ABBREV)       ABREV. RESOLVER IN DMSINA     @V62A7E5 05880000 ? -
000CDC 00000000         1789+ADEVSUP2 DC    V(DMSDIOFB)     DEVICE SUPPORT TABLE FOR FBA  @V62B1E5 05890000 ? -
000CE0 00000000         1790+AESTATE  DC    V(DMSSTTN)      EXTENDED PLIST STATE          @V62B0G9 05900000 ? -
000CE4 00000000         1791+AESTATEW DC    V(DMSSTTNW)     EXTENDED PLIST STATE FOR R/W  @V62B0G9 05910000 ? -
000CE8 00000000         1792+AEPOINT  DC    V(DMSPNTE)      EXTENDED PLIST POINT          @V62B0G9 05920000 ? -
000CEC 00000000         1793+ATRUNC   DC    V(DMSERSTR)     FILE TRUNCATE FUNCTION        @V62B0E5 05930000 ? -
000CF0 00000000         1794+ABAMSYS  DC    F'0'            POINTER TO CMSBAM DCSS        @V62A1B4 05940000 ?
000CF4 00000000         1795+NUCSCBLK DC    A(0)            SCBLOCK CHAIN ANCHOR          @V6BD7G9 05950000 ?
000CF8 00               1796+BAMFLAGS DC    X'00'           CMSBAM SHARED SEGMENT FLAGS   @V62A1B4 05960000 ?
                00080   1797+DOSBAM   EQU   X'80'           FB-512 SUPPORT AVAILABLE      @V62A1B4 05970000 ?
000CF9 00               1798+NUCOSFLG DC    X'0'            OS LOADER SUPPORT FLAG        @V6BE17A 05980000 ?
                00080   1799+NUCOSRUN EQU   X'80'           OSRUN COMMAND ISSUED          @V6BE17A 05990000 ?
                00040   1800+NUCSYSDF EQU   X'40'           $SYSLIB DEFINED BY LDR SUPRT  @V6BE17A 06000000 ?
                00020   1801+NUCGLOBL EQU   X'20'           GLOBAL DONE BY OSRUN          @V6BE1E1 06010000 ?
                00010   1802+NUCOSRLD EQU   X'10'           MEMBER LOADED FOR OSRUN       @V6BE1E1 06020000 ?
000CFA                  1803+NUCRSVB2 DS    XL2             RESERVED FOR FUTURE USE       @V62A1B4 06030000 ?
000CFC 00000000         1804+ACMSZER  DC    A(0)            ADDRESS OF CMSZER SEGMENT     @V62B0E5 06040000 ?
000D00 00000000         1805+SEGORELO DC    A(0)            RELOCATION FACTOR FOR SEG0    @V62B0E5 06050000 ?
000D04 00000000         1806+ASSTATX  DC    A(0)            ADDR OF SHARED COPY OF SSTAT  @V62B0E5 06060000 ?
000D08 00000000         1807+ASSTATZ  DC    A(0)            ADDR OF DUMMY 2ND SSTAT HBLK  @V62B0E5 06070000 ?
000D0C 00000000         1808+AYSTATX  DC    A(0)            ADDR OF SHARED COPY OF YSTAT  @V62B0E5 06080000 ?
000D10 00000000         1809+AYSTATZ  DC    A(0)            ADDR OF DUMMY 2ND YSTAT HBLK  @V62B0E5 06090000 ?
000D14 00000000         1810+ADMSIOW  DC    V(DMSIOW)       DMSIOW                        @V62B0E5 06100000 ? -
000D18 00000000         1811+ADBGSECT DC    V(DBGSECT)      DEBUG WORKAREA                @V62B0E5 06110000 ? -
000D1C 00000000         1812+ADMSABW  DC    V(DMSABW)       ABEND WORK AREA               @V62B0E5 06120000 ? -
000D20 00000000         1813+ADMSERR  DC    V(DMSERR)       DMSERR                        @V62B0E5 06130000 ? -
000D24 00000000         1814+ADMSCWT  DC    V(DMSCWT)       DMSCWT                        @V62B0E5 06140000 ? -
000D28 00000000         1815+ADMSCWR  DC    V(DMSCWR)       DMSCWR                        @V62B0E5 06150000 ? -
000D2C 00000000         1816+ADMSIOWR DC    V(DMSIOWR)      DMSIOWR                       @V62B0E5 06160000 ? -
000D30 00000000         1817+ADMSITI  DC    V(DMSITI)       DMSITI                        @V62B0E5 06170000 ? -
000D34 00000000         1818+ADMSABN  DC    V(DMSABN)       DMSABN                        @V62B0E5 06180000 ? -
000D38 00000000         1819+AABNGO   DC    V(DMSABNGO)     DMSABNGO                      @V62B0E5 06190000 ? -
000D3C 00000000         1820+ALADAD   DC    V(DMSLADAD)     DMSLADAD                      @V62B0E5 06200000 ? -
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
000D40 00000000                    1821+ACITDB   DC    V(DMSCITDB)       DMSCITDB                        @V62B0E5 06210000 ? -
000D44 00000000                    1822+ADMSITSR DC    V(DMSITSR)        DMSITSR                         @V62B0E5 06220000 ? -
000D48 00000000                    1823+ADMSFRES DC    V(DMSFRES)        DMSFRES                         @V62B0E5 06230000 ? -
000D4C 00000000                    1824+ASTGSB   DC    V(DMSSTGSB)       DMSSTGSB                        @V62B0E5 06240000 ? -
000D50 00000000                    1825+AINTAB   DC    V(DMSINTAB)       DMSINTAB                        @V62B0E5 06250000 ? -
000D54 00000000                    1826+ADMSCAT  DC    V(DMSCAT)         DMSCAT                          @V62B0E5 06260000 ? -
000D58 00000000                    1827+ADMSCPF  DC    V(DMSCPF)         DMSCPF                          @V62B0E5 06270000 ? -
000D5C 00000000                    1828+AEXCAB   DC    V(DMSEXCAB)       ADDRESS OF EXEC ABEND RTN       @V62B0E5 06280000 ? -
000D60 00000000                    1829+NUCFSTLN DC    A(0)              FIRST LINE IN PROGRAM STACK     @V6BD7G9 06290000 ?
000D64 00000000                    1830+NUCLSTLN DC    A(0)              LAST  LINE IN PROGRAM STACK     @V6BD7G9 06300000 ?
000D68 00000000                    1831+NUCNLSTK DC    A(0)              NUMBER OF LINES IN PROG. STACK  @V6BD7G9 06310000 ?
000D6C 00000000                    1832+NUCNBSTK DC    A(0)              NUMBER OF PROGRAM STACK         @V6BD7G9 06320000 ?
000D70 6F4040404040404040          1833+NUCTIEIN DC    CL8'?'            LISTING TIEIN FIELD             @V6BE17A 06330000 ?
000D78 00000000                    1834+NUCAFCHS DC    A(0)              ADDR OF OS FETCH WORK AREA      @V6BE17A 06340000 ?
000D7C 00000000                    1835+NUCCBLKS DC    F'0'              PTR TO MODS LOADED BY DMSLOS    @V6BE17A 06350000 ?
000D80 FFFFFFFFFFFFFFFF            1836+NUCLDLIB DC    18F'-1'           LIST OF GLOBALED LOADLIBS       @V6BE17A 06360000 ?
000DC8 00000000                    1837+NUCLODSV DC    F'0'              SAVE AREA FOR LOADLIB TOTALS    @V6BE17A 06370000 ?
000DCC                             1838+NUCLDIRC DS    8A(0)             PTRS TO LOADLIB DIRECTORIES     @V6BE17A 06380000 ?
000DEC 00000000                    1839+NUCAPIO  DC    V(DMSPIO)         DMSPIO ROUTINE.                 @V6BD7H2 06390000 ? -
000DF0 00000000                    1840+ATCBPTR  DC    V(BGTCB)          DOS TCB ADDRESS                 @V6BE0H5 06400000 ? -
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.32 10/25/81

                                  1842+** FILE MANAGER MISCELLANEOUS STORAGE                                KM075 06400400

000DF4                            1844+          DS    4F             RESERVE IBM SOME SPACE TO GROW       KM075 06400800

                                  1846+** NEXT TWO WORDS MUST BE KEPT IN ORDER                              KM075 06401200
000E04 00000000                   1847+FMLSEG    DC    1A(0)          LENGTH OF FMSEG IN CMS FREE STORAGE  KM075 06401400 ?
000E08 00000000                   1848+FMASEG    DC    1A(0)          ADDRESS OF FMSEG                     KM075 06401600 ?
                            00080 1849+FMRELOAD EQU   X'80'          FMSEG SHOULD BE FRETTED/RELOADED     KS077 06401800 ?

                                  1851+** NEXT THREE WORDS MUST BE KEPT IN ORDER                            KM075 06402200
000E0C 00000000                   1852+FMABNADD DC    1A(0)          ADDRESS OF FM ABEND RECOVERY ROUTINEKM075 06402400
000E10 00000000                   1853+FMWORKL   DC    1A(0)          LENGTH OF FM WORK AREA IN DBL WORDS  KM075 06402600 ?
000E14 00000000                   1854+FMWORKA   DC    1A(0)          ADDRESS OF FM WORK AREA              KM075 06402800 ?
                                  1855+** BITS DEFINED IN HIGH-ORDER BYTE OF 'FMWORKA'                      KM075 06403000
                            00080 1856+FROMFREE EQU   X'80'          WORK AREA CAME FROM CMS FREE STORAGEKM075 06403200 ?

                                  1858+** FILE MANAGER TRACE TABLE INFORMATION (MUST BE KEPT IN ORDER)      KM075 06403600
000E18 00000000                   1859+FMTRSTRT DC    1A(0)          BEGINNING OF TRACE TABLE             KM075 06403800 ?
000E1C 00000000                   1860+FMTREND  DC    1A(0)          END OF TRACE TABLE                   KM075 06404000 ?
000E20 00000000                   1861+FMTRPTR  DC    1A(0)          ADDRESS OF NEXT TRACE TABLE ENTRY    KM075 06404200 ?

                                  1863+** VMCF MISCELLANEOUS STORAGE                                        KM075 06404600

                                  1865+** NEXT TWO WORDS SHOULD BE KEPT IN ORDER                            KM075 06405000
000E24 00000000                   1866+CMSVMCFH DC    1A(0)          ADDRESS OF CURRENT VMCF EXTERNAL     KM075X06405200 ?
                                    +                                INTERRUPT HEADER                     KM075 06405400
000E28 00000000                   1867+CMSVMCFL DC    1A(0)          LENGTH OF CURRENT VMCF HEADER        KM075 06405600
000E30                            1868+          DS    0D               ALIGN END OF NUCON               @V6BD7G9 06410000
                                  1869+          POP   PRINT                                             @V6BD7G9 06420000
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.32 10/25/81

```
                        1872          REGEQU                                    00619000
                        1873+         PUSH  PRINT                               00002200
                        1874+*                                                  00003000
                        1875+***      SYMBOLIC REGISTER EQUATES                 00004000
                        1876+*                                                  00005000

                        1878+* GENERAL PURPOSE REGISTERS                        00007000

00000                   1880+R0       EQU   0                                   00009000 ?
00001                   1881+R1       EQU   1                                   00010000 ?
00002                   1882+R2       EQU   2                                   00011000 ?
00003                   1883+R3       EQU   3                                   00012000 ?
00004                   1884+R4       EQU   4                                   00013000 ?
00005                   1885+R5       EQU   5                                   00014000 ?
00006                   1886+R6       EQU   6                                   00015000 ?
00007                   1887+R7       EQU   7                                   00016000 ?
00008                   1888+R8       EQU   8                                   00017000 ?
00009                   1889+R9       EQU   9                                   00018000 ?
0000A                   1890+R10      EQU   10                                  00019000 ?
0000B                   1891+R11      EQU   11                                  00020000 ?
0000C                   1892+R12      EQU   12                                  00021000 ?
0000D                   1893+R13      EQU   13                                  00022000 ?
0000E                   1894+R14      EQU   14                                  00023000 ?
0000F                   1895+R15      EQU   15                                  00024000 ?

                        1897+* FLOATING POINT REGISTERS                         00026000

00000                   1899+F0       EQU   0                                   00028000 ?
00002                   1900+F2       EQU   2                                   00029000 ?
00004                   1901+F4       EQU   4                                   00030000 ?
00006                   1902+F6       EQU   6                                   00031000 ?

                        1904+* EXTENDED CONTROL REGISTERS                       00033000

00000                   1906+C0       EQU   0                                   00035000 ?
00001                   1907+C1       EQU   1                                   00036000 ?
00002                   1908+C2       EQU   2                                   00037000 ?
00003                   1909+C3       EQU   3                                   00038000 ?
00004                   1910+C4       EQU   4                                   00039000 ?
00005                   1911+C5       EQU   5                                   00040000 ?
00006                   1912+C6       EQU   6                                   00041000 ?
00007                   1913+C7       EQU   7                                   00042000 ?
00008                   1914+C8       EQU   8                                   00043000 ?
00009                   1915+C9       EQU   9                                   00044000 ?
0000A                   1916+C10      EQU   10                                  00045000 ?
0000B                   1917+C11      EQU   11                                  00046000 ?
0000C                   1918+C12      EQU   12                                  00047000 ?
0000D                   1919+C13      EQU   13                                  00048000 ?
0000E                   1920+C14      EQU   14                                  00049000 ?
0000F                   1921+C15      EQU   15                                  00050000 ?
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    ASM 0201 20.32 10/25/81

                                   1923+         POP   PRINT                                  00051100
                                   1924          END   ,              CIAMUSER                00620000
020F20 0001                        1925                =H'1'
020F22 8FFF                        1926                =X'8FFF'
020F24 0003                        1927                =AL2(VMCPSENR)                                1146
020F26 001F                        1928                =AL2(VMCPUNST)                                1155
020F28 00D1                        1929                =X'00D1'
020F2A 1004                        1930                =X'1004'
```

POS.ID	REL.ID	FLAGS	ADDRESS
0001	0001	0C	020034
0001	0001	0C	020278
0001	0001	0C	02041C
0001	0001	0C	020548
0001	0001	0C	020550
0001	0001	0C	020570
0001	0001	0C	020578
0001	0001	0C	020598
0001	0001	0C	0205D8
0001	0002	1C	020194
0001	0003	1C	0202BC
0001	0004	0C	020504
0001	0004	0C	020508
0001	0004	0C	02050C

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.32 10/25/81

```
#ARGSOFF 00001 0000000C 01064  00070
#SSCOFF  00001 000000F0 01107  00069
ABEND    00001 00000004 00549  00124 00320 00454 00456
ABNRET   00002 000204F0 00458  00321
AIEAEND  00004 0002050C 00470  00979
AIEASTRT 00004 00020508 00469  00976
AIEAVMCF 00004 00020504 00468  00963
AKSUSECT 00004 00000468 01443  00190
AUTHPARM 00040 00020538 00475  00218 00234 00489
AUTHVMID 00008 00020540 00482  00215
BINDRU   00004 000205EC 00529  00121
BIT0     00001 00000080 00535  00075 00099 00101 00544
BIT1     00001 00000040 00536  00348 00545
BIT2     00001 00000020 00537  00546
BIT3     00001 00000010 00538  00547
BIT4     00001 00000008 00539  00548
BIT5     00001 00000004 00540  00549
BIT6     00001 00000002 00541  00550
BIT7     00001 00000001 00542  00551
CCB#ARGS 00004 00000008 01063  00116
CCBDATE  00008 0000008C 01087  00167
CCBDBSZ  00084 0000009C 01089  00171 00171
CCBDMLSN 00004 000001C4 01128  00575 00596 00752 00779 00836
CCBDPORT 00001 00000087 01081  00231 00251
CCBDVMID 00008 0000007F 01080  00215 00216 00252
CCBEDML  00002 000000F8 01112  00146 00147 00148 00855 00856 00857
CCBICOMA 00100 00000150 01120  00084
CCBLEN   00004 00000000 01058  00223 00255 00256 00921
CCBMSGID 00002 00000088 01082  00140
CCBTOL   00004 00000004 01059  00339 00749
CCBUPORT 00001 0000007E 01079  00232 00232 00250
CCBUVMID 00008 00000076 01078  00192
CIAM$DA  00008 000204F8 00462  00461
CIAM$DAB 00001 000204F8 00463  00561 00902
CIAM$DAE 00002 00020650 00560  00461 00905
CIAM$DML 00004 000205E8 00528  00087 00121 00130 00150 00153 00593 00746 00833
CIAM$ECB 00004 000204FC 00465  00343 00343 00348 00352 00359 00360 00384 00387 00431 00483 00484 00629
CIAM$FM  00004 00020500 00466  00177 00290
CIAMAUTH 00001 00000040 00545  00127 00212 00246 00302 00316
CIAMCB   00001 00000000 01051  00066 00283 00420 00564 00582 00735 00759 00822 00853 00919 01064 01107 01131
CIAMDML  00002 00020000 00047  00045
CIAMFLG1 00001 000205FA 00543  00074 00078 00094 00102 00111 00124 00127 00160 00208 00212 00246 00284 00302 00316 00317
                               00318 00320 00335 00414 00425 00438 00454 00456 00872 01042 01044
CIAMHDR  00040 000205B0 00521  00371 00514 00515 00522 00522
CIAMINIT 00002 0002013A 00158  00122
CIAMTERM 00002 00020244 00263  00178 00261
CIAMTOUT 00002 000203E8 00395  00393 00485
CIAMUEND 00002 00020F1E 01048  01047
CIAMUSER 00001 00020000 00002  00059 00062 00275 00278 00407 00410
CIAMVMCP 00040 00020510 00473  00118 00247 00247 00248 00305
CONSTACK 00320 00000A60 01726  01493
CPULOG   00008 00000080 01335  01336
C0       00001 00000000 01906  00198 00198 00201 00201 00315 00315 00422 00422 00424 00424 00451 00451 00453 00453
DATETIME 00032 00020608 00554  00164 00167
DB       00008 00020600 00553  00145 00146 00854 00855
```

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DIAGTIME	00024	00000280	01363	01364
DISABLE	00001	000205F8	00532	00347
DMPTITLE	00132	000003BC	01401	01399
DMSA0042	00002	000206AA	00573	00567
DMSA0074	00002	00020714	00591	00585
DMSA0123	00002	00020770	00612	00606
DMSA0155	00002	000207CC	00627	00621
DMSA0204	00002	00020836	00647	00641
DMSA0236	00002	0002088A	00662	00656
DMSA0285	00002	000208DC	00679	00673
DMSA0317	00002	00020946	00695	00689
DMSA0366	00002	000209A6	00716	00710
DMSA0398	00002	000209DE	00730	00725
DMSA0425	00002	00020A6C	00744	00738
DMSA0481	00002	00020ADA	00767	00762
DMSA0508	00002	00020B26	00777	00771
DMSA0540	00002	00020B66	00788	00783
DMSA0567	00002	00020BAA	00802	00796
DMSA0599	00002	00020BE4	00816	00811
DMSA0626	00002	00020C46	00831	00825
DMSA0675	00002	00020C8A	00847	00842
DMSA0702	00002	00020CC4	00869	00864
DMSA0729	00002	00020CF6	00880	00875
DMSA0756	00002	00020D14	00890	00885
DMSA0783	00002	00020D3A	00900	00894
DMSA0832	00002	00020D64	00915	00910
DMSA0859	00002	00020D94	00929	00923
DMSA0908	00002	00020DBC	00942	00937
DMSA0935	00002	00020DD0	00951	00946
DMSA0962	00002	00020E08	00961	00955
DMSA0994	00002	00020E32	00974	00968
DMSA1043	00002	00020E5E	00989	00984
DMSA1070	00002	00020E84	00999	00993
DMSA1119	00002	00020EAC	01014	01009
DMSA1146	00002	00020ED2	01024	01018
DMSA1195	00002	00020F06	01039	01034
DMSC0042	00001	000000C1	00574	00569
DMSC0123	00001	00000081	00613	00608
DMSC0204	00001	00000081	00648	00643
DMSC0285	00001	00000081	00680	00675
DMSC0366	00001	000000C4	00717	00712
DMSC0508	00001	000000C1	00778	00773
DMSC0567	00001	000000C4	00803	00798
DMSC0962	00001	000000C0	00962	00957
DMSL0042	00001	00000052	00572	00570
DMSL0074	00001	00000049	00590	00588
DMSL0123	00001	0000002F	00611	00609
DMSL0155	00001	00000040	00626	00624
DMSL0204	00001	0000003D	00646	00644
DMSL0236	00001	00000038	00661	00659
DMSL0285	00001	00000032	00678	00676
DMSL0317	00001	0000004F	00694	00692
DMSL0366	00001	0000002F	00715	00713
DMSL0398	00001	00000024	00729	00727
DMSL0425	00001	00000072	00743	00741

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DMSL0481	00001	0000003B	00766	00764
DMSL0508	00001	00000040	00776	00774
DMSL0540	00001	00000031	00787	00785
DMSL0567	00001	00000034	00801	00799
DMSL0599	00001	00000027	00815	00813
DMSL0626	00001	00000049	00830	00828
DMSL0675	00001	00000020	00846	00844
DMSL0702	00001	00000015	00868	00866
DMSL0729	00001	0000001E	00879	00877
DMSL0756	00001	00000012	00889	00887
DMSL0783	00001	00000010	00899	00897
DMSL0832	00001	00000007	00914	00912
DMSL0859	00001	00000010	00928	00926
DMSL0908	00001	0000000D	00941	00939
DMSL0935	00001	00000009	00950	00948
DMSL0962	00001	0000002B	00960	00958
DMSL0994	00001	00000010	00973	00971
DMSL1043	00001	00000008	00988	00986
DMSL1070	00001	00000010	00998	00996
DMSL1119	00001	00000005	01013	01011
DMSL1146	00001	00000010	01023	01021
DMSL1195	00001	00000011	01038	01036
DMST0042	00001	00020657	00570	00572
DMST0074	00001	000206CA	00588	00590
DMST0123	00001	0002073F	00609	00611
DMST0155	00001	0002078A	00624	00626
DMST0204	00001	000207F7	00644	00646
DMST0236	00001	00020850	00659	00661
DMST0285	00001	000208A9	00676	00678
DMST0317	00001	000208F6	00692	00694
DMST0366	00001	00020975	00713	00715
DMST0398	00001	000209B8	00727	00729
DMST0425	00001	000209F9	00741	00743
DMST0481	00001	00020A9E	00764	00766
DMST0508	00001	00020AE5	00774	00776
DMST0540	00001	00020B34	00785	00787
DMST0567	00001	00020B75	00799	00801
DMST0599	00001	00020BBC	00813	00815
DMST0626	00001	00020BFC	00828	00830
DMST0675	00001	00020C68	00844	00846
DMST0702	00001	00020CAE	00866	00868
DMST0729	00001	00020CD6	00877	00879
DMST0756	00001	00020D00	00887	00889
DMST0783	00001	00020D28	00897	00899
DMST0832	00001	00020D5C	00912	00914
DMST0859	00001	00020D82	00926	00928
DMST0908	00001	00020DAE	00939	00941
DMST0935	00001	00020DC6	00948	00950
DMST0962	00001	00020DDB	00958	00960
DMST0994	00001	00020E20	00971	00973
DMST1043	00001	00020E54	00986	00988
DMST1070	00001	00020E72	00996	00998
DMST1119	00001	00020EA6	01011	01013
DMST1146	00001	00020EC0	01021	01023
DMST1195	00001	00020EF4	01036	01038

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DODML	00004	000200DE	00127	00258
DUMPIT	00002	00020CA8	00861	00415
DUMPSTOR	00001	00000002	00550	00414 00438 00872 01042
ENABLE	00001	000205F9	00533	00350 00358
EOLIST	00001	00000020	00546	00074 00102 00111
ERRRET1	00004	00020C92	00854	00580 00602 00617 00637 00652 00669
ERRRET2	00002	00020CA8	00863	00684 00706 00721 00757 00792 00807 00820
ERR001	00002	00020650	00566	00213
ERR002	00002	000206BA	00584	00128
ERR003	00002	00020738	00605	00221
ERR004	00002	0002077A	00620	00226 00229
ERR005	00002	000207F0	00640	00238
ERR006	00002	00020840	00655	00244
ERR007	00002	000208A2	00672	00369
ERR008	00002	000208E6	00688	00374
ERR009	00002	000209CE	00709	00377
ERR011	00002	000209E4	00737	00428
ERR012	00002	00020A98	00761	00459
ERR013	00002	00020B6E	00795	00380
ERR014	00002	00020BB6	00810	00385
ERR015	00002	00020BEC	00824	00125
FINISH	00004	000205F0	00530	00150
FMABNADD	00004	00000E0C	01852	00176 00183 00296
FMRUN	00001	00000010	01603	00182 00294
FOREVER	00001	00020648	00559	00197 00334 00389 00421 00450
FPRLOG	00008	000001E0	01347	01398
GPRLOG	00004	00000180	01348	01394
HDRINFO	00004	000205D8	00522	00365
IEAVMCF	00001	00000000	00467	00468 00469 00470
IHB0010B	00004	00020194	00205	00206
IHB0019B	00004	000202BC	00312	00313
INTRNXIT	00002	00020284	00281	00151 00426 00457
IPLPSW	00008	00000000	01307	01310
JOIN1	00002	000200E4	00080	00076
JOIN2	00004	000200A2	00104	00100
JOIN3	00004	000200C4	00116	00095 00112
KSUFLAGS	00001	000005E5	01599	00182 00294
KSURSV	00008	00000000	01198	01199
KSUSECT	00001	00000000	01197	00191 01221
KSUUSER	00008	00000010	01200	00192
LENVMCP	00001	00000028	00471	00473 00475 00491 00506 00521
LOOP1	00004	00020092	00099	00114
LOWSAVE	00160	000000C0	01345	01395
MSG010	00002	000209B2	00724	00280
NOWAIT	00002	000203E2	00388	00346 00361
NUCON	00001	00000000	01227	00175 00289
ONLY2	00001	00000080	00544	00074 00078 00094
PORTRCB	00008	000205E0	00524	00223 00228 00499 00500 00501 00502 00632
PORTREQ	00040	00020560	00491	00224 00504
POSTED	00002	00020390	00357	00349
PREQVMID	00008	00020568	00498	00216
RBACKDML	00004	000205F4	00531	00153
RESTCRO	00008	00020640	00558	00199 00315
RETURN	00002	000202E2	00324	00156 00455 00859 01046
RETXIT	00004	000202D2	00318	00285

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.32 10/25/81

```
ROLLBACK 00002 000204D0 00449  00154
R0       00001 00000000 01880  00175 00193 00289 00300
R1       00001 00000001 01881  00065 00075 00081 00097 00097 00099 00101 00104 00113 00113 00118 00119 00218 00224 00234
                               00235 00240 00241 00248 00305 00306 00342 00363 00382 00412 00417
R14      00001 0000000E 01894  00142 00225 00280 00390 00428 00459 00733 01045
R15      00001 0000000F 01895  00145 00166 00220 00237 00243 00338 00339 00340 00345 00345 00360 00368 00387 00579 00601
                               00636 00850 00854
R2       00001 00000002 01882  00065 00066 00067 00072 00089 00092 00106 00108 00253 00254 00282 00283 00419 00420 00564
                               00578 00582 00600 00735 00756 00759 00791 00822 00840 00853 00858 00918 00919 00920 00931
R3       00001 00000003 01883  00220 00237 00243 00368 00614 00649 00666 00681
R4       00001 00000004 01884  00069 00072 00081 00083 00089 00092 00104 00106 00108 00134 00135 00136 00138 00139 00140
                               00164 00166 00228 00231 00241 00371 00372 00382 00664 00686 00819 00920 00921 00933
R5       00001 00000005 01885  00084 00085 00190 00191 00193
R6       00001 00000006 01886  00070 00072 00090 00093 00092 00107 00107 00108 00176 00177 00178 00183 00290 00296
R7       00001 00000007 01887  00071 00091 00091 00109 00109 00116
R8       00001 00000008 01888  00083 00085 00086 00086 00087
SAVEAREA 00004 000202F4 00330  00053 00055 00269 00271 01001 01004
SAVECB@  00004 000204F8 00464  00067 00282 00419 00918
SAVECR0  00008 00020638 00557  00198 00199 00200 00201 00422 00423 00424 00451 00452 00453
SAVETOD  00008 00020628 00555  00337
SAVE2    00004 00020488 00446  00401 00403 01026 01029
SENDRECV 00002 0002033C 00333  00142 00225
SKIPFATA 00002 00020CFA 00883  00873
TERM     00004 000202B8 00311  00303
TESTFIN  00006 00020122 00150  00143
TIMEOUT  00001 00000008 00548  00318 00335 00425 01044
TMPTOD   00008 00020630 00556  00336 00337 00338 00340 00341
TOUTEXIT 00002 00020472 00437  00418 01043
TOUTRET  00002 0002045C 00427  00319
UNSTKCB  00040 00020588 00506  00342 00363 00519 00698
VMCMHDR  00001 00000000 01169  00372 00686 01193
VMCMRESP 00001 00000080 01174  00379
VMCMRJCT 00001 00000040 01175  00376
VMCMSTAT 00001 00000000 01173  00376 00379
VMCMUMID 00002 00000004 01184  00373 00702
VMCMUSER 00008 00000008 01187  00718 00804
VMCPARM  00001 00000000 01134  00119 00306 01166
VMCPAUTH 00001 00000000 01143  00478
VMCPAUTS 00001 00000080 01139  00240 00476
VMCPFUNC 00002 00000002 01142  00249 00307 00364
VMCPLENA 00004 00000014 01162  00255
VMCPLENB 00004 0000001C 01164  00256
VMCPSENR 00001 00000003 01146  00494 01927
VMCPSNKT 00001 00000007 01159  00251
VMCPSRCT 00001 00000006 01158  00250
VMCPUAUT 00001 00000001 01144  00235 00307
VMCPUMID 00002 00000004 01157  00134 00139 00373
VMCPUNST 00001 0000001F 01155  00509 01928
VMCPUSE  00008 00000020 01165  00130
VMCPUSER 00008 00000008 01160  00252
VMCPVADA 00004 00000010 01161  00253 00365
VMCPVADB 00004 00000018 01163  00254
XITED    00001 00000010 00547  00208 00284 00317
```

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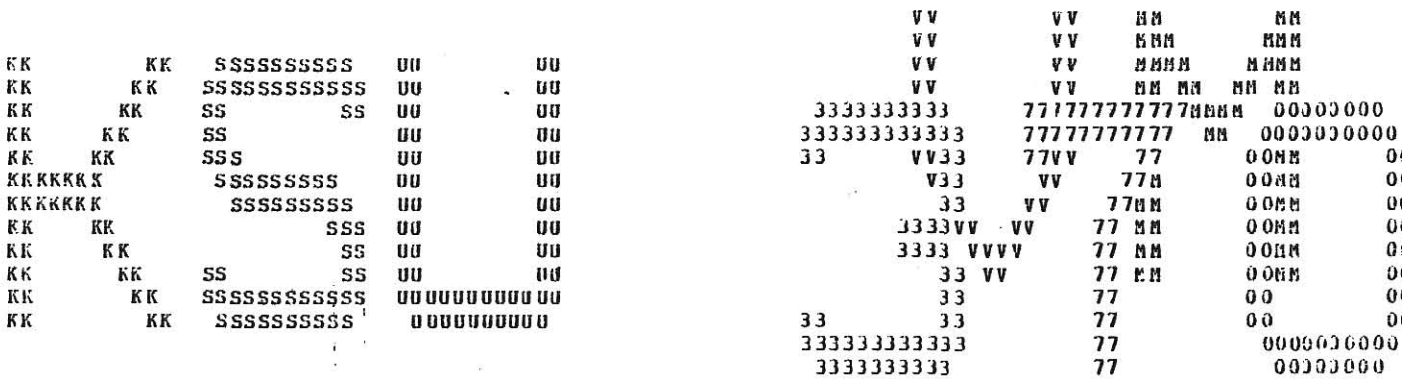
SYMBOL	LEN	VALUE	DEFN	REFERENCES
=H'1'	00002	00020F20	01925	00135
=X'8FFF'	00002	00020F22	01926	00136
=AL2(VMCPSENB)	00002	00020F24	01927	00249
=AL2(VMCPUNST)	00002	00020F26	01928	00364
=X'00D1'	00002	00020F28	01929	00412
=X'1004'	00002	00020F2A	01930	00417

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```
NO STATEMENTS FLAGGED IN THIS ASSEMBLY
HIGHEST SEVERITY WAS     0
OPTIONS FOR THIS ASSEMBLY
  ALIGN, ALOGIC, BUFSIZE(STD), NODECK, ESD, FLAG(0), LINECOUNT(55), LIST, NOMCALL, YFLAG, WORKSIZE(2097152)
  NOMLOGIC, NUMBER, OBJECT, NORENT, RLD, STMT, NOLIBMAC, TERMINAL, NOTEST, XREF(SHORT)
  SYSPARM()
WORK FILE BUFFER SIZE/NUMBER = 7294/ 1
TOTAL RECORDS READ FROM SYSTEM INPUT        620
TOTAL RECORDS READ FROM SYSTEM LIBRARY     3409
TOTAL RECORDS PUNCHED                        85
TOTAL RECORDS PRINTED                      2388
```

Appendix D

ADDIR - SAMPLE USER PROGRAM USING CIAM


KK KK SSSSSSSSS UU UU
KK KK SSSSSSSSSSS UU UU
KK KK SS SS UU UU
KK KK SS UU UU
KK KK SSS UU UU
KKKKKKK SSSSSSSSS UU UU
KKKKKKK SSSSSSSSS UU UU
KK KK SSS UU UU
KK KK SS UU UU
KK KK SS SS UU UU
KK KK SSSSSSSSSSS UUUUUUUUUUU
KK KK SSSSSSSSS UUUUUUUUUU
VV VV MM MM
VV VV MMM MMM
VV VV MMMM MMMM
VV VV MM MM MM MM
3333333333 7777777777MMMM 00000000
333333333333 77777777777 MM 0000000000
33 VV33 77VV 77 00MM 00
V33 VV 77M 00MM 00
33 VV 77MM 00MM 00
3333VV VV 77 MM 00MM 00
3333 VVVV 77 MM 00MM 00
33 VV 77 MM 00MM 00
33 77 00 00
33 33 77 00 00
333333333333 77 0000000000
3333333333 77 00000000
IIIIIIIII EEEEEEEEEEE AAAAAAAAAA VV VV MM MM CCCCCCCCCC FFFFFFFFFFF
IIIIIIIII EEEEEEEEEEE AAAAAAAAAAAA VV VV MMM MMM CCCCCCCCCCCC FFFFFFFFFFF
II EE AA AA VV VV MMMM MMMM CC CC FF
II EE AA AA VV VV MM MM MM MM CC FF
II EE AA AA VV VV MM MMMM MM CC FF
II EEEEEEEE AAAAAAAAAAAA VV VV MM MM MM CC FFFFFFFF
II EEEEEEEE AAAAAAAAAAAA VV VV MM MM CC FFFFFFFF
II EE AA AA VV VV MM MM CC FF
II EE AA AA VV VV MM MM CC FF
II EE AA AA VV VV MM MM CC CC FF
IIIIIIIII EEEEEEEEEEE AA AA VVVV MM MM CCCCCCCCCC FF
IIIIIIIII EEEEEEEEEEE AA AA VV MM MM CCCCCCCCCC FF
vv vv mm mm fffffffffff
vv vv mmm mmm fffffffffff
vv vv mmmm mmmm ff
vv vv mm mm mm mm ff
vv vv mm mmmm mm ff
vv vv mm mm mm ffffffff
vv vv mm mm ffffffff
vv vv mm mm ff
vv vv mm mm ff
vvvv mm mm ff
vv mm mm ff
aaaaaaaaaa SSSSSSSSS mm mm
aaaaaaaaaaaa SSSSSSSSSSS mmm mmm
aa aa SS SS mmmm mmmm
aa aa SS mm mm mm mm
aa aa SSS mm mmm mm
aaaaaaaaaaaa SSSSSSSS mm mm mm
aaaaaaaaaaaa SSSSSSSS mm mm
aa aa SSS mm mm
aa aa SS mm mm
aa aa SS SS mm mm
aa aa SSSSSSSSSS mm mm
aa aa SSSSSSSSS mm mm

```
UPDATING 'IEAVMCF  ASSEMBLE D1' WITH 'IEAVMCF  UPDT0001 D1'          UPDATE LOG -- PAGE      1

        ./ R 1000 $ 1100
DELETING...     VMCF     TITLE 'OS/VMCF EXTERNAL INTERRUPT HANDLER AND SVC ROUTINE'      00001000
INSERTING...    VMCF     TITLE 'OS/VMCF Assembly control constants'                      00001100
        ./ I 23000 $ 23100
INSERTING...             TITLE 'OS/VMCF CMS Initilization Routine'                       00023100
        ./ I 42000 $ 42100
INSERTING...             TITLE 'OS/VMCF CMS Termination Routine'                         00042100
        ./ I 66000 $ 66100
INSERTING...             TITLE 'OS/VMCF SVC Interrupt Handler'                           00066100
        ./ I 386000 $ 386050 50
INSERTING...             ANOP  (NOT &CMS).NOXIT                                          00386050
                         CLC   VMCPUSE,=CL8'EXTERNAL'  DID USER WISH TO HANDLE NON-      00386100
               *                                       X'4001' EXT. INTERUPTS?           00386150
                         BNE   NOXITRP       -> NO NEED TO CHECK VMCPVADB THEN.          00386200
                         ICM   R1,B'1111',XTRPTAD  ANY ADDRESS OF NON-X'4001' ITRPT      00386250
               *                                   HANDLER YET?                          00386300
                         BNZ   NOXITRP       YES--DON'T STORE NEW ONE.                   00386350
                         ICM   R1,B'1111',VMCPVADB  GET ADDRESS                          00386400
                         BNP   NOXITRP       NOT POS. ALREADY BAD,SKIP.                  00386450
                         MVC   XTRPTAD,VMCPVADB  SAVE ADDRESS.                           00386500
               NOXITRP   DS    0H                                                        00386550
               .NOXIT    ANOP  ,                                                         00386600
        ./ I 577000 $ 577100
INSERTING...             TITLE 'OS/VMCF External Interrupt Handler'                      00577100
        ./ R 801000 $ 801050 50
DELETING...              L     R2,NUMIGNOR                                               00801000
INSERTING...             AIF   (NOT &CMS).NOXIT2                                         00801050
                         ICM   R15,B'1111',XTRPTAD  USER HANDLER?                        00801100
                         BZ    NOXITRP2                                                  00801150
               * >>>>    STM   Done on VMCFEXT entry    <<<< *                           00801200
                         ST    R13,XTRPTSA+4  SAVE OLD PTR IN NEW AREA.                  00801250
                         LR    R14,R13        MOVE OLD POINTER OVER.                     00801300
                         LA    R13,XTRPTSA    ADDRESS OF NEW SAVE AREA.                  00801350
                         ST    R13,8(,R14)    SAVE NEW POINTER IN OLD AREA.              00801400
                         BALR  R14,R15        GO TO USER ROUTINE.                        00801450
                         L     R13,4(,R13)    RESTORE SAVE AREA ADDRESS.                 00801500
               NOXITRP2  DS    0H                                                        00801550
               .NOXIT2   ANOP  ,                                                         00801600
                         L     R0,NUMIGNOR                                               00801650
        ./ I 804000 $ 804100
INSERTING...             TITLE 'OS/VMCF'                                                 00804100
        ./ I 1006000 $ 1006100 100
INSERTING...             AIF   (NOT &CMS).NOXIT3                                         01006100
               XTRPTAD   DC    AL4(0)         USER NON X'4001' ITRPT HANDLER.           01006200
               XTRPTSA   DC    18F'0'                                                    01006300
               .NOXIT3   ANOP  ,                                                         01006400
        ./ R 1009000 $ 1009100
DELETING...     AUTHPARM DS     0D             PARM FIEL FOR AUTHORIZE                   01009000
INSERTING...    AUTHPARM DS     0D             PARM FIELD FOR AUTHORIZE                  01009100
```

```
TEXT MACS USLIB1 DMSSP CMSLIB OSMACRO CIAM
TEXT AUXCIAM



UPDT0001 -- NON-'4001'X EXTERNAL INTERUPT HANDLING MODIFICATION.
*          IEAVMCF   UPDT0001 D1 6N9192 10/09/81   11:31
*          USLIB1    MACLIB   Z2 CMS29D 10/17/81   10:00
*          DMSSP     MACLIB   S2 VMSP90 04/21/81   00:30
*          CMSLIB    MACLIB   S2 VMSP90 04/21/81   01:23
*          OSMACRO   MACLIB   S2 VMSP90 12/09/78   05:02
*          CIAM      MACLIB   D1 6N9192 90/17/81   10:05
*          IEAVMCF   ASSEMBLE D1 6N9192 86/19/81   09:25
```

ASM 0201 20.29 10/25/81

SYMBOL	TYPE	ID	ADDR	LENGTH	LDID
IEAVMCF	SD	0001	000000	005000	
VMCFINIT	LD		000000		0001
VMCFTERM	LD		00005A		0001

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

                                     2          LCLA  &SVCNO                                          00002000
                                     3          LCLA  &SVCTYPE                                        00003000
                                     4          LCLA  &SP          SUBPOOL FOR GETMAIN                 00004000
                                     5          LCLB  &CMS                                            00005000
                                     6          LCLB  &MS                                             00006000
                                     7 &SVCNO   SETA  211          TYPE 1/2 SVC NUMBER                 00007000 ?
                                     8 &SVCTYPE SETA  2            SVC TYPE                            00008000 ?
                                     9 &SP      SETA  245          SYSTEM-ORIENTED SQA                 00009000 ?
                                    10 &CMS     SETB  (1)          CMS OS SIMULATION SUPPORT VERSION   00010000 ?
                                    11 &MS      SETB  (0)          USING MS NUCLEUS ROUTINES           00011000 ?
000000                              12 IEAVMCF  START 0            START OF CSECT                      00012000
                                    13          AIF   (&CMS).CMS1                                     00013000
                                    14 .CMS1    ANOP  ,                                               00022000 ?
                                    15          AIF   (&MS).MS1                                       00023000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

                                    17 *                                                                    00024000
                                    18 *              CMS INITIALIZATION ROUTINE                            00025000
                                    19 *                                                                    00026000
                                    20          ENTRY VMCFINIT                                              00027000
000000 90EC D00C      0000C         21 VMCFINIT STM   R14,R12,12(R13)  SAVE REGS FROM CALLER                00028000
                            00000   22          USING VMCFINIT,R15   ENTRY ADDRESSABILITY                   00029000 21
000004 58C0 FCE8      00CE8         23          L     R12,=A(IEAVMCF)                                       00030000 12
                            00000   24          USING IEAVMCF,R12                                           00031000 12
                                    25          DROP  R15                                                   00032000
000008 41E0 CB38      00B38         26          LA    R14,SAVE                                              00033000 959
00000C 50ED 0008      00008         27          ST    R14,8(R13)                                            00034000
000010 50DE 0004      00004         28          ST    R13,4(R14)                                            00035000
000014 18DE                         29          LR    R13,R14                                               00036000
                                    30          HNDEXT SET,VMCFEXT   ESTABLISH EXTERNAL IRPT HANDLER        00037000
000016 0700                         31+         CNOP  0,4                                                   00005000
000018 4510 C028      00028         32+         BAL   1,DMS0001A                                            00015000 35
00001C E3D9C1D740404040             33+         DC    CL8'TRAP'                                             00016000
000024 00000714                     34+         DC    A(VMCFEXT)                                            00017000 591
000028 0ACA                         35+DMS0001A     SVC 202                                                 00018000
00002A 0000002E                     36+         DC    AL4(*+4)                                              00019000
                                    37          HNDSVC SET,(&SVCNO,IGC&SVCNO)  ESTAB SVC HANDLER            00038000
00002E 0700                         38+         CNOP  0,4                                                   00004000
000030 4510 C048      00048         39+         BAL   1,DMS0002A                                            00009000 44
000034 C8D5C4E2E5C34040             40+         DC    CL8'HNDSVC'                                           00010000
00003C E2C5E340                     41+         DC    CL4'SET'                                              00011000
000040 D30000B2                     42+         DC    AL1(211),AL3(IGC211)                                  00018000 91
000044 FFFFFFFF                     43+         DC    XL4'FFFFFFFF'                                         00024000
000048 0ACA                         44+DMS0002A     SVC 202                                                 00025000
00004A 0000004E                     45+         DC    AL4(*+4)                                              00026000
00004E 58DD 0004      00004         46          L     R13,4(R13)                                            00039000
000052 98EC D00C      0000C         47          LM    R14,R12,12(R13)                                       00040000
000056 1BFF                         48          SR    R15,R15                                               00041000
000058 07FE                         49          BR    R14             RETURN TO CALLER                      00042000
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                          ASM 0201 20.29 10/25/81

                                    51 *                                                                  00043000
                                    52 *              CMS TERMINATION ROUTINE                             00044000
                                    53 *                                                                  00045000
                                    54          ENTRY VMCFTERM                                            00046000
00005A 90EC D00C       0000C        55 VMCFTERM STM   R14,R12,12(R13)                                     00047000
                              0005A 56          USING VMCFTERM,R15                                        00048000 55
00005E 58C0 FC8E       00CE8        57          L     R12,=A(IEAVMCF)  GET MODULE BASE                    00049000 12
                              00000 58          USING IEAVMCF,R12                                         00050000 12
                                    59          DROP  R15                                                 00051000
000062 41E0 CB38       00B38        60          LA    R14,SAVE                                            00052000 959
000066 50ED 0008       00008        61          ST    R14,8(R13)                                          00053000
00006A 50DE 0004       00004        62          ST    R13,4(R14)                                          00054000
00006E 18DE                         63          LR    R13,R14                                             00055000
                                    64          HNDEXT CLR           CLEAR EXT IRPT HANDLER               00056000
000070                              65+         CNOP  0,4                                                 00005000
000070 4510 C080       00080        66+         BAL   1,DMS0003A                                          00015000 69
000074 E3D9C1D740404040             67+         DC    CL8'TRAP'                                           00016000
00007C 00000000                     68+         DC    A(0)                                                00017000
000080 0ACA                         69+DMS0003A     SVC 202                                               00018000
000082 00000086                     70+         DC    AL4(*+4)                                            00019000
                                    71          HNDSVC CLR,&SVCNO    CLEAR SVC LINKAGE                    00057000
000086 0700                         72+         CNOP  0,4                                                 00004000
000088 4510 C0A0       000A0        73+         BAL   1,DMS0004A                                          00009000 78
00008C C8D5C4E2E5C34040             74+         DC    CL8'HNDSVC'                                         00010000
000094 C3D3D940                     75+         DC    CL4'CLR'                                            00011000
000098 D3000000                     76+         DC    AL1(211),AL3(0)                                     00021000
00009C FFFFFFFF                     77+         DC    XL4'FFFFFFFF'                                       00024000
0000A0 0ACA                         78+DMS0004A     SVC 202                                               00025000
0000A2 000000A6                     79+         DC    AL4(*+4)                                            00026000
0000A6 58DD 0004       00004        80          L     R13,4(R13)       RESTORE OLD SAVE AREA PTR          00058000
0000AA 98EC D00C       0000C        81          LM    R14,R12,12(R13)                                     00059000
0000AE 1BFF                         82          SR    R15,R15          RETURN CODE                        00060000
0000B0 07FE                         83          BR    R14              RETURN TO CALLER                   00061000
                                    84          AGO   .COM1                                               00062000
                                    85 .COM1    ANOP  ,                                                   00066000 ?
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
                                     87 *                                                                    00067000
                                     88 *              SVC ENTRY POINT                                       00068000
                                     89 *                                                                    00069000
                                     90 IGC&SVCNO DS   0H              SVC ENTRY POINT                       00070000 ?
0000B2                               91+IGC211    DS   0H              SVC ENTRY POINT                       00070000
                                     92           AIF  (&CMS).CMS2                                           00071000
                                     93 .CMS2     ANOP ,                                                     00082000 ?
                                     94           AIF  (&MS).MS2                                             00083000
                               000B2 95           USING *,R12           STRANGE HNDSVC ADDRESSABILITY        00084000
0000B2 90EC D00C      0000C        96           STM  R14,R12,12(R13)  SAVE REGISTERS                       00085000
0000B6 8000 CB21      00BD3        97           SSM  DISABLE          DISABLE INTERRUPTS                   00086000 970
0000BA 58C0 CC36      00CE8        98           L    R12,=A(IEAVMCF)  GET MODULE BASE                      00087000 12
                               00000  99           USING IEAVMCF,R12     ADDRESS IT THAT WAY                  00088000 12
0000BE D703 CA90 CA90 00A90  00A90  100          XC   CALLTCB,CALLTCB  NO TCB ADDRESS FROM CMS              00089000 930 930
0000C4 D207 CA88 CCB8 00A88  00CB8  101          MVC  CALLPSW,=X'FFE4000000000000'  DUMMY CALLER'S PSW     00090000 929
                                    102          AGO  .COM2                                                 00091000
                                    103 .COM2    ANOP ,                                                     00098000 ?
0000CA 5800 CAB8      00AB8        104          L    R0,NUMSVC        GET SVC COUNT                        00099000 940
0000CE 5A00 CCEC      00CEC        105          A    R0,=F'1'         INCREMENT                            00100000
0000D2 5000 CAB8      00AB8        106          ST   R0,NUMSVC        SAVE NEW SVC COUNT                   00101000 940
0000D6 18A1                        107          LR   R10,R1           GET VMCPARM ADDRESS                  00102000
0000D8 4100 0028      00028        108          LA   R0,VMCPLEN       LENGTH OF VMCPARM                    00103000 897
0000DC 45E0 C9E2      009E2        109          BAL  R14,KEYCHK       CHECK FOR PROTECT VIOLATION          00104000 821
0000E0 4770 CA2A      00A2A        110          BNZ  ERR6             ERROR ADDRESSING VMCPARM             00105000 858
                               00000  111          USING VMCPARM,R10     ADDRESS IT IN ASSEMBLER              00106000 865
0000E4 4810 A002      00002        112          LH   R1,VMCPFUNC      GET FUNCTION CODE                    00107000 873
0000E8 1211                        113          LTR  R1,R1            NEGATIVE?                            00108000
0000EA 4740 CA1A      00A1A        114          BM   ERR2             YES--INVALID SUBFUNCTION             00109000 853
0000EE 4910 CD10      00D10        115          CH   R1,=AL2(MAXFUNC)  OVER MAX?                           00110000 1018
0000F2 4720 CA1A      00A1A        116          BH   ERR2             YES--INVALID SUBFUNCTION             00111000 853
0000F6 4121 CC98      00C98        117          LA   R2,FUNCTAB(R1)   GET FUNCTION TABLE BYTE             00112000 996
0000FA 9180 2000      00000        118          TM   0(R2),VALID      VALID FUNCTION?                      00113000 997
0000FE 4780 CA1A      00A1A        119          BZ   ERR2             NO--GIVE INVALID SUBFUNCTION RETURN CODE 00114000 853
000102 4910 CD12      00D12        120          CH   R1,=AL2(VMCPAUTH)  IS THIS AN AUTHORIZE?              00115000 874
000106 4780 C408      00408        121          BE   AUTH             YES--GO HANDLE SEPARATELY            00116000 351
00010A 9501 CBD2      00BD2        122          CLI  INITFLAG,1       IS VMCF INITIALIZED?                 00117000 969
00010E 4770 CA22      00A22        123          BNE  ERR4             NO--THEN CALLER  NOT AUTHORIZED      00118000 855
                                    124 *                                                                   00119000
                                    125 *              LOCATE PATHBLOK FOR CURRENT SVC REQUEST              00120000
                                    126 *                                                                   00121000
000112 4110 A008      00008        127          LA   R1,VMCPUSER      WHERE USERID NORMALY IS              00122000 891
000116 D507 A008 CCC0 00008  00CC0  128          CLC  VMCPUSER,=CL8'*'  COMMUNICATE WITH SELF?              00123000 891
00011C 4770 C124      00124        129          BNE  *+8              NO--LEAVE                            00124000
000120 4110 CB28      00B28        130          LA   R1,VMUSER        GET OUR USERID                       00125000 954
000124 D200 CBD1 A006 00BD1  00006  131          MVC  LOCTASK,VMCPSRCT  ASSUME LOCAL SOURCE                 00126000 968 889
00012A D200 CBD0 A007 00BD0  00007  132          MVC  REMTASK,VMCPSNKT  AND REMOTE SINK                     00127000 967 890
000130 9140 2000      00000        133          TM   0(R2),SOURCE     IS THIS SUBFUNCTION FOR SOURCE?      00128000 998
000134 4770 C144      00144        134          BNZ  BASRC1           YES--WE'RE SET                       00129000 137
000138 D200 CBD1 A007 00BD1  00007  135          MVC  LOCTASK,VMCPSNKT  LOCAL TASK IS SINK                  00130000 968 890
00013E D200 CBD0 A006 00BD0  00006  136          MVC  REMTASK,VMCPSRCT  REMOTE IS SOURCE                    00131000 967 889
000144                              137 BASRC1   DS   0H                                                    00132000
000144 5890 CA94      00A94        138          L    R9,PATHHEAD      GET FIRST PATHBLOK                   00133000 931
                               00000  139          USING PATHBLOK,R9     ADDRESS IT                           00134000 1022
000148 1299                        140 BALOOP1  LTR  R9,R9             END OF CHAIN?                        00135000
00014A 47D0 C17C      0017C        141          BNP  BADONE1                                               00136000 152
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  LOC  OBJECT CODE      ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 3201 20.29 10/25/81
000148 9540 9004        00004         142           CLI   PATHUSER,C' '  SPECIFIC?                                00137000 1024
00014C 4780 C16A        0016A         143           BE    BANSPEC1       NO--SKIP USERID/REMOTE TASK ID CHECK      00138000 148
000150 D507 9004 1000   00004 00000   144           CLC   PATHUSER,0(R1)  USERID MATCH?                            00139000 1024
000156 4770 C174        00174         145           BNE   BANEXT1        NO--GET NEXT ONE                          00140000 150
00015A D500 9020 CBD0   00020 00BD0   146           CLC   PATHREMT,REMTASK  REMOTE TASK MATCH?                     00141000 1032 967
000160 4770 C174        00174         147           BNE   BANEXT1        NO--GET NEXT ONE                          00142000 150
000164 D500 9021 CBD1   00021 00BD1   148 BANSPEC1  CLC   PATHLOCT,LOCTASK  LOCAL TASK MATCH?                     00143000 1033 968
000168 4780 C180        00180         149           BE    BAFOUND1       YES--THIS IS IT                           00144000 154
00016C 5890 9000        00000         150 BANEXT1   L     R9,PATHLINK    GET NEXT PATHBLOK                         00145000 1023
000170 47F0 C148        00148         151           B     BALOOP1        CONTINUE                                  00146000 140
000174                                152 BADONE1   DS    0H             HERE IT NOT FOUND                         00147000
000174 47F0 CA22        00A22         153           B     ERR4           GIVE NOT AUTHORIZED ERRO                  00148000 855
000178                                154 BAFOUND1  DS    0H             HERE WHEN FOUND                           00149000
                                      155 *                                                                        00150000
                                      156 *         VALIDATE PARAMETERS                                          00151000
                                      157 *                                                                        00152000
000178 91F0 CA89        00A89         158           TM    CALLPSW+1,X'F0'  KEY ZERO CALLER?                       00153000 929
00017C 4780 C192        00192         159           BZ    *+14           YES--VERY GOOD                            00154000
000180 D502 CA91 900D   00A91 0000D   160           CLC   CALLTCB+1(3),PATHTCB+1  TCB ADDR MATCH?                  00155000 930 1026
000186 4770 CA22        00A22         161           BNE   ERR4           NO--NOT AUTHORIZED                        00156000 855
00018A 9120 2000        00000         162           TM    0(R2),ADDRA    ADDRESS A PRESENT?                        00157000 999
00018E 4780 C1AA        001AA         163           BZ    BANADDRA       NO                                        00158000 168
000192 5800 A014        00014         164           L     R0,VMCPLENA    GET LENGTH OF IT                          00159000 893
000196 5810 A010        00010         165           L     1,VMCPVADA     GET ADDR                                  00160000 892
00019A 45E0 C9E2        009E2         166           BAL   R14,KEYCHK     VALIDATE ADDRESSES                        00161000 821
00019E 4770 CA2A        00A2A         167           BNZ   ERR6           PROTECT KEY CHECK FAILED                  00162000 858
0001A2 9110 2000        00000         168 BANADDRA  TM    0(R2),ADDRB    ADDR/LEN B PRESENT                        00163000 1000
0001A6 4780 C1C2        001C2         169           BZ    BANADDRB       NO                                        00164000 174
0001AA 5800 A01C        0001C         170           L     R0,VMCPLENB    LENGTH OF AREA B                          00165000 895
0001AE 5810 A018        00018         171           L     R1,VMCPVADB    GET ADDR OF AREA B                        00166000 894
0001B2 45E0 C9E2        009E2         172           BAL   R14,KEYCHK     VALIDATE PARAMETES                        00167000 821
0001B6 4770 CA2A        00A2A         173           BNZ   ERR6           PROTECT CHECK FAILED                      00168000 858
0001BA                                174 BANADDRB  DS    0H                                                       00169000
0001BA D501 A002 CD14   00002 00D14   175           CLC   VMCPFUNC,=AL2(VMCPUNST)  UNSTACK REQUEST?                00170000 873 886
0001C0 4780 C38E        0038E         176           BE    UNSTACK        YES--SEPARATE PROCESSING                  00171000 313
0001C4 D501 A002 CD16   00002 00D16   177           CLC   VMCPFUNC,=AL2(VMCPUAUT)  UNAUTHORIZE?                  00172000 873 875
0001CA 4780 C5CE        005CE         178           BE    UNAUTH         YES--SPECIAL HANDLING                     00173000 481
                                      179 *                                                                        00174000
                                      180 *         PERFORM VMCF FUNCTION VIA DIAGNOSE                           00175000
                                      181 *                                                                        00176000
0001CE 9108 2000        00000         182           TM    0(R2),IMMED    IMMEDIATE OPERATION?                      00177000 1001
0001D2 4770 C1F6        001F6         183           BNZ   BAIMMED1       YES                                       00178000 190
0001D6 5800 CAE4        00AE4         184           L     R0,MAXACTV     GET ACTIVE REQUEST LIMIT FOR SPECIFIC     00179000 946
0001DA 9540 9004        00004         185           CLI   PATHUSER,C' '  SPECIFIC?                                 00180000 1024
0001DE 4770 C1EE        001EE         186           BNE   *+8            YES                                       00181000
0001E2 5800 CAE8        00AE8         187           L     R0,MAXACTV+4   GET NONSPECIFIC LIMIT                     00182000 946
0001E6 4900 901E        001E          188           CH    R0,PATHNACT    WILL WE EXCEED IT?                        00183000 1031
0001EA 47D0 CA32        00A32         189           BNH   ERR10          YES--MESSAGE LIMIT EXCEEDED               00184000 860
0001EE                                190 BAIMMED1  DS    0H                                                       00185000
0001EE 4110 CC20        00C20         191           LA    R1,MISCPARM    GET ADDR OF MISC PARM FIELD               00186000 976
0001F2 D227 1000 A000   00000 00000   192           MVC   0(VMCPLEN,R1),VMCPARM  MOVE IN PARM LIST               00187000 897 865
0001F8 D507 1008 CCC0   00008 00CC0   193           CLC   VMCPUSER-VMCPARM(,R1),=CL8'*'  * FOR USERID?          00188000 891 865
0001FC 4770 C210        00210         194           BNE   *+10            NO                                        00189000
000200 D207 1008 CB28   00008 00B28   195           MVC   VMCPUSER-VMCPARM(,R1),VMUSER  MOVE IN OUR USERID        00190000 891 865 954
000206 D203 CAC0 CCF0   00AC0 00CF0   196           MVC   DW(4),=X'00040000'  FRONT HALF OF PSW                    00191000 941
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

000216 D203 CAC4 CCF4 00AC4 00CF4   197           MVC   DW+4(4),=A(BAEXHVC)                                  00192000 941 202
00021C D300 CAC1 CA89 00AC1 00A89   198           MVZ   DW+1(1),CALLPSW+1  GET CALLER'S PROTECT KEY           00193000 941 929
000222 D203 CAC8 CCF0 00AC8 00CF0   199           MVC   DW2(4),=X'00040000'  FRONT HALF OF RESUME             00194000 942
000228 D203 CACC CCF8 00ACC 00CF8   200           MVC   DW2+4(4),=A(BAEXDONE)                                 00195000 942 204
00022E 8200 CAC0      00AC0         201           LPSW  DW              ENTER CALLER'S PROTECT KEY            00196000 941
000232 831F0068                     202 BAEXHVC   DC    X'831F0068'     VMCF                                  00197000
000236 8200 CAC8      00AC8         203           LPSW  DW2             RESUME IN KEY ZERO                    00198000 942
00023A 50F0 CBCC      00BCC         204 BAEXDONE  ST    R15,HVCRC       STORE DIAGNOSE RETURN CODE            00199000 966
                                    205 *                                                                     00200000
                                    206 *         BUILD ACTVBLOK IF NECESSARY                                 00201000
                                    207 *                                                                     00202000
00023E 12FF                         208           LTR   R15,R15         GOOD COMPLETION?                      00203000
000240 4770 C2B8      002B8         209           BNZ   BANBLD2         NO--NO ACTVBLOK TO BUILD              00204000 238
000244 9108 2000      00000         210           TM    0(R2),IMMED     IMMEDIATE OPERATION?                  00205000 1001
000248 4770 C2B8      002B8         211           BNZ   BANBLD2         YES--DON'T BUILD                      00206000 238
00024C 5880 CAA0      00AA0         212           L     R8,FREEACTV     GET TOP ENTRY ON FREE QUEUE           00207000 934
                                    213           USING ACTVBLOK,R8     ADDRESS IT                          00208000 1038
000250 1288                         214           LTR   R8,R8           IS THERE ONE?                         00209000
000252 47D0 C260      00260         215           BNP   BAGM2           NO--ISSUE GETMAIN                     00210000 218
000256 D203 CAA0 8000 00AA0 00000   216           MVC   FREEACTV,ACTVLINK  REMOVE FROM FREE LIST               00211000 934 1039
00025C 47F0 C270      00270         217           B     BABLD2          GO BUILD IT                           00212000 222
000260 4100 0013      00013         218 BAGM2     LA    R0,ACTVLEN      LENGTH OF BLOCK                       00213000 1045
000264 45E0 C9F0      009F0         219           BAL   R14,GETMAIN      GET CORE                              00214000 833
000268 1881                         220           LR    R8,R1           SAVE ADDR                             00215000
00026A D712 1000 1000 00000 00000   221           XC    0(ACTVLEN,R1),0(R1)  CLEAR BLOCK                    00216000 1045
000270                              222 BABLD2    DS    0H                                                    00217000
000270 D203 8000 9018 00000 00018   223           MVC   ACTVLINK,PATHACTQ  ADD TO FRONT OF PATH'S ACTIVE QUEUE 00218000 1039 1029
000276 5080 9018      00018         224           ST    R8,PATHACTQ     COMPLETE ADDITION                     00219000 1029
00027A D207 8004 A008 00004 00008   225           MVC   ACTVUSER,VMCPUSER  USERID                             00220000 1040 891
000280 D507 8004 CCC0 00004 00CC0   226           CLC   ACTVUSER,=CL8'*'                                      00221000 1040
000286 4770 C290      00290         227           BNE   *+10             NOT A * REFERENCE                     00222000
00028A D207 8004 CB28 00004 00B28   228           MVC   ACTVUSER,VMUSER  GET OUR USERID                       00223000 1040 954
000290 D203 800C A004 0000C 00004   229           MVC   ACTVMID,VMCPMID  MESSAGE ID                           00224000 1041 887
000296 D201 8010 A002 00010 00002   230           MVC   ACTVFUNC,VMCPFUNC  FUNCTION                           00225000 1042 873
00029C 9200 8012      00012         231           MVI   ACTVSTAT,0      THIS IS A SOURCE REQUEST              00226000 1043
0002A0 4800 901E      001E          232           LH    R0,PATHNACT     GET ACTIVE COUNT                      00227000 1031
0002A4 5A00 CCEC      00CEC         233           A     R0,=F'1'                                              00228000
0002A8 4000 901E      001E          234           STH   R0,PATHNACT                                           00229000 1031
0002AC 5800 CAAC      00AAC         235           L     R0,NUMACTV      GET SYSTEM ACTIV COUNT                00230000 937
0002B0 5A00 CCEC      00CEC         236           A     R0,=F'1'                                              00231000
0002B4 5000 CAAC      00AAC         237           ST    R0,NUMACTV      STORE IT                              00232000 937
0002B8                              238 BANBLD2   DS    0H                                                    00233000
                                    239 *                                                                     00234000
                                    240 *         DELETE ACTVBLOKS FOR RESPONSE FUNCTIONS                     00235000
                                    241 *                                                                     00236000
0002B8 9104 2000      00000         242           TM    0(R2),RESP      IS THIS A RESPONSE FUNCTION?          00237000 1002
0002BC 4780 C386      00386         243           BZ    BANRESP3        NO--NO DELETION REQUIRED              00238000 307
0002C0 58F0 CBCC      00BCC         244           L     R15,HVCRC       GET RETURN CODE FROM HVC              00239000 966
0002C4 12FF                         245           LTR   R15,R15         WAS IT GOOD?                          00240000
0002C6 4780 C2DE      002DE         246           BZ    BARESP3         YES--ALWAYS GOOD                      00241000 252
0002CA 59F0 CCFC      00CFC         247           C     R15,=F'11'      REPLY CANCELLED?                      00242000
0002CE 4780 C2DE      002DE         248           BE    BARESP3         YES                                   00243000 252
0002D2 59F0 CD00      00D00         249           C     R15,=F'12'      MESSAGE NOT FOUND?                    00244000
0002D6 4780 C2DE      002DE         250           BE    BARESP3         THESE ARE SUCCESSFUL FROM OUR VIEWPOINT 00245000 252
0002DA 47F0 C386      00386         251           B     BANRESP3        IGNORE OTHER ERROR CODES              00246000 307
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

0002DE                             252 BARESP3  DS    0H                                                    00247000
0002DE 5880 9018       00018       253          L     R8,PATHACTQ     GET HEAD OF QUEUE                     00248000 1029
0002E2 4170 9018       00018       254          LA    R7,PATHACTQ     LAGGING PTR FOR DELETE                00249000 1029
0002E6 1288                        255 BALOOP3  LTR   R8,R8           END OF LIST?                          00250000
0002E8 47D0 C386       00386       256          BNP   BADONE3         YES                                   00251000 306
0002EC D503 800C A004  0000C 00004 257          CLC   ACTVMID,VMCPMID  MESSAGE ID MATCH?                    00252000 1041 887
0002F2 4770 C37A       0037A       258          BNE   BANEXT3         NO--GET NEXT ONE                      00253000 303
0002F6 D501 A002 CD18  00002 00D18 259          CLC   VMCPFUNC,=AL2(VMCPCANC)  IS THIS A 'CANCEL'          00254000 873 880
0002FC 4780 C316       00316       260          BE    BACANC3         YES                                   00255000 266
000300 9180 8012       00012       261          TM    ACTVSTAT,ACTVSINK  IS THIS SINK (FOR RECV/REPLY/REJECT) 00256000 1043 1044
000304 4780 C37A       0037A       262          BZ    BANEXT3         NO--NOT A MATCH                       00257000 303
000308 D501 A002 CD1A  00002 00D1A 263          CLC   VMCPFUNC,=AL2(VMCPRECV)  IS THIS RECEIVE?             00258000 873 879
00030E 4780 C322       00322       264          BE    BARECV3         YES--SPECIAL HANDLING                 00259000 269
000312 47F0 C336       00336       265          B     BADEL3          OTHERWISE ON REPLY/REJECT DELETE ACTVBLOK 00260000 278
000316 9160 8012       00012       266 BACANC3  TM    ACTVSTAT,ACTVSINK  IS THIS SINK FOR CANCEL?            00261000 1043 1044
00031A 4770 C37A       0037A       267          BNZ   BANEXT3         YES--THEN NO MATCH                    00262000 303
00031E 47F0 C336       00336       268          B     BADEL3          IF SOURCE THEN CANCEL DOES APPLY      00263000 278
000322 D501 8010 CD1C  00010 00D1C 269 BARECV3  CLC   ACTVFUNC,=AL2(VMCPSENR)  RECV TO SEND/RECV?           00264000 1042 877
000328 4770 C336       00336       270          BNE   BADEL3          NO--THEN RECV IS FINAL OP REQURIED BY SIN 00265000 278
00032C 58F0 CBCC       00BCC       271          L     R15,HVCRC       GET HVC RETURN CODE                   00266000 966
000330 12FF                        272          LTR   R15,R15         WAS IT SUCCESSFUL?                    00267000
000332 4780 C37A       0037A       273          BZ    BANEXT3         YES--THEN REPLY/REJECT FOLLOWS        00268000 303
                                   274 *                            THE OTHER CASE IS 11 OR 12 WHICH MEANS 00269000
                                   275 *                            THAT THE SOURCE ALREADY CANCELLED THE  00270000
                                   276 *                            MESSAGE AND THUS OUR USER WILL NOT BE  00271000
                                   277 *                            ISSUING A REPLY/REJECT.                00272000
000336                             278 BADEL3   DS    0H              HERE TO DELETE                        00273000
                                   279 *                            WE DELETE THE FOLLOWING:               00274000
                                   280 *                            ANYTHING CANCELED                      00275000
                                   281 *                            ANYTHING REJECTED/REPLYED              00276000
                                   282 *                            ANYTHING BUT SEND/RECV WHICH WAS       00277000
                                   283 *                            RECEIVED.                              00278000
                                   284 *                            SEND/RECV IF RECEIVE GOT ERROR 11 OR 12 00279000
000336 D203 7000 8000  00000 00000 285          MVC   0(4,R7),ACTVLINK  REMOVE FROM QUEUE                    00280000 1039
00033C D203 8000 CAA0  00000 00AA0 286          MVC   ACTVLINK,FREEACTV  ADD TO FREE LIST                    00281000 1039 934
000342 5080 CAA0       00AA0       287          ST    R8,FREEACTV     COMPLETE THE ADD                      00282000 934
000346 9180 8012       00012       288          TM    ACTVSTAT,ACTVSINK  ARE WE THE SINK MACHINE?           00283000 1043 1044
00034A 4770 C372       00372       289          BNZ   BANDECR3        YES--NO ACTV COUNT DECR REQUIRED      00284000 300
00034E 4800 901E       001E        290          LH    R0,PATHNACT     GET NUMBER ACTIVE FOR PATH            00285000 1031
000352 5B00 CCEC       00CEC       291          S     R0,=F'1'                                              00286000
000356 47B0 C35C       0035C       292          BNM   *+6             MUST BE NONNEGATIVE                   00287000
00035A 0000                        293          DC    H'0'                                                  00288000
00035C 4000 901E       001E        294          STH   R0,PATHNACT                                           00289000 1031
000360 5800 CAAC       00AAC       295          L     R0,NUMACTV                                            00290000 937
000364 5B00 CCEC       00CEC       296          S     R0,=F'1'                                              00291000
000368 47B0 C36E       0036E       297          BNM   *+6                                                   00292000
00036C 0000                        298          DC    H'0'                                                  00293000
00036E 5000 CAAC       00AAC       299          ST    R0,NUMACTV      STORE NUMBER ACTIVE                   00294000 937
000372                             300 BANDECR3 DS    0H                                                    00295000
000372 5887 0000       00000       301          L     R8,0(R7)        GET NEXT ENTRY                        00296000
000376 47F0 C2E6       002E6       302          B     BALOOP3         CONTINUE                              00297000 255
00037A 4170 8000       00000       303 BANEXT3  LA    R7,ACTVLINK     UPDATE LAGGING PTR                    00298000 1039
00037E 5880 8000       00000       304          L     R8,ACTVLINK     GET NEXT ENTRY                        00299000 1039
000382 47F0 C2E6       002E6       305          B     BALOOP3         CONTINUE                              00300000 255
000386                             306 BADONE3  DS    0H              HERE AT END OF CHAIN                  00301000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
000386                              307 BANRESP3 DS    0H             HERE TO SKIP ALL OF THIS                  00302000
000386 58F0 CBCC      00BCC         308          L     R15,HVCRC      GET RETURN CODE FROM HVC                  00303000 966
00038A 47F0 C6F2      006F2         309          B     RTRN           RETURN TO SVC CALLER                      00304000 570
                                    310 *                                                                      00305000
                                    311 *                UNSTACK PROCESSING                                    00306000
                                    312 *                                                                      00307000
00038E                              313 UNSTACK  DS    0H                                                      00308000
00038E 5880 9014      00014         314          L     R8,PATHPNDQ    GET FIRST PENDBLOK                        00309000 1028
                            00000   315          USING PENDBLOK,R8                                              00310000 1049
000392 1288                         316          LTR   R8,R8          IS THERE ONE?                             00311000
000394 47D0 CA3A      00A3A         317          BNP   ERR12          NO--NOTHING TO UNSTACK                    00312000 862
000398 5800 A014      00014         318          L     R0,VMCPLENA    GET LENGTH OF USER'S EXT IRPT BUFFER      00313000 893
00039C 4900 CD1E      00D1E         319          CH    R0,=AL2(VMCMLEN)  CORRECT LENGTH?                        00314000 923
0003A0 4740 CA12      00A12         320          BL    ERR1           NO--TOO SMALL                             00315000 851
0003A4 D203 9014 8000 00014 00000   321          MVC   PATHPNDQ,PENDLINK  REMOVE FROM CHAIN                   00316000 1028 1050
0003AA D203 8000 CA9C 00000 00A9C   322          MVC   PENDLINK,FREEPEND                                        00317000 1050 933
0003B0 5080 CA9C      00A9C         323          ST    R8,FREEPEND    ADD TO FREE LIST                          00318000 933
0003B4 5800 CAA8      00AA8         324          L     R0,NUMPEND     GET PENDING COUNT                         00319000 936
0003B8 5B00 CCEC      00CEC         325          S     R0,=F'1'                                                 00320000
0003BC 47B0 C3C2      003C2         326          BNM   *+6                                                      00321000
0003C0 0000                         327          DC    H'0'                                                     00322000
0003C2 5000 CAA8      00AA8         328          ST    R0,NUMPEND                                               00323000 936
0003C6 4800 901C      0001C         329          LH    R0,PATHNPND                                              00324000 1030
0003CA 5B00 CCEC      00CEC         330          S     R0,=F'1'                                                 00325000
0003CE 47B0 C3D4      003D4         331          BNM   *+6                                                      00326000
0003D2 0000                         332          DC    H'0'                                                     00327000
0003D4 4000 901C      0001C         333          STH   R0,PATHNPND                                              00328000 1030
0003D8 5810 A010      00010         334          L     R1,VMCPVADA    GET USER BUFFER ADDR                      00329000 892
0003DC D227 1000 8004 00000 00004   335          MVC   0(VMCMLEN,R1),PENDVMCM  COPY IRPT HEADER                00330000 923 1051
                                    336 *                              NOTE THAT ADDR WAS ALREADY VALIDATED    00331000
0003E2 4100 0004      00004         337          LA    R0,4           LENGTH OF ECB                             00332000
0003E6 5810 9010      00010         338          L     R1,PATHECB     ECB ADDRESS                               00333000 1027
0003EA 45E0 C9E2      009E2         339          BAL   R14,KEYCHK     CHECK ECB ADDRESS                         00334000 821
0003EE 4770 C402      00402         340          BNZ   UNSTK2         NOT ADDRESSABLE--TOO BAD                  00335000 345
0003F2 5880 9014      00014         341          L     R8,PATHPNDQ    IS THERE MORE ON PEND QUEUE?              00336000 1028
0003F6 1288                         342          LTR   R8,R8          IS THERE?                                 00337000
0003F8 4720 C402      00402         343          BP    UNSTK2         YES--DON'T CLEAR ECB                      00338000 345
0003FC D703 1000 1000 00000 00000   344          XC    0(4,R1),0(R1)  CLEAR THE ECB                             00339000
000402                              345 UNSTK2   DS    0H                                                       00340000
000402 1BFF                         346          SR    R15,R15        RETUURN CODE FOR FUNCTION                 00341000
000404 47F0 C6F2      006F2         347          B     RTRN           RETURN FROM SVC                           00342000 570
                                    348 *                                                                      00343000
                                    349 *                AUTHORIZE FUNCTION                                    00344000
                                    350 *                                                                      00345000
000408                              351 AUTH     DS    0H                                                       00346000
000408 9501 CBD2      00BD2         352          CLI   INITFLAG,1     IS SYSTEM VMCF INITIALIZED?               00347000 969
00040C 4780 C468      00468         353          BE    AUTH2          YES--VERY GOOD                            00348000 385
                                    354 *                                                                      00349000
                                    355 *                INITIALIZE REAL VMCF                                  00350000
                                    356 *                                                                      00351000
000410 B202 CAD0      00AD0         357          STIDP CPUID          GET S/370 CPU ID                          00352000 943
000414 95FF CAD0      00AD0         358          CLI   CPUID,X'FF'    UNDER VM/370?                             00353000 943
000418 4770 C466      00466         359          BNE   INITFAIL       NO--CAN'T ISSUE HVCS                      00354000 381
00041C 4110 CB18      00B18         360          LA    R1,XID         WHERE EXTENDED MACHINE ID GOES            00355000 950
000420 4100 0020      00020         361          LA    R0,32          GET LENGTH OF ID AREA                VMSP 00356000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
000424 83100000                      362          DC    X'83100000'    REQUESST EXTENDED ID                    00357000
000428 D507 CB18 CCC8 00B18 00CC8    363          CLC   XID(8),=CL8'VM/SP'  IS THIS VM/SP?          VMSP 00358000 950
00042E 4780 C43C      0043C          364          BE    INITOK         YES--WE'LL TAKE IT          VMSP 00359000 369
000432 D507 CB18 CCD0 00B18 00CD0    365          CLC   XID(8),=CL8'VM/370'  RIGHT OP SYS?              00360000 950
000438 4770 C466      00466          366          BNE   INITFAIL       NO                              00361000 381
                                     367 *        CLC   VMREL,=X'030006'  RELEASE SUPPORTING VMCF?      00362000
                                     368 *        BL    INITFAIL       NO                              00363000
00043C                               369 INITOK   DS    0H                                     VMSP 00364000
00043C B600 CAD8      00AD8          370          STCTL 0,0,SAVECR0    SAVE CR0 VALUE                  00365000 944
000440 9601 CADB      00ADB          371          OI    SAVECR0+3,X'01'  SET VMCF BIT                  00366000 944
000444 B700 CAD8      00AD8          372          LCTL  0,0,SAVECR0    RELOAD IT                       00367000 944
000448 4110 CC70      00C70          373          LA    R1,UAUTPARM    ADDR OF PARMS FOR UNAUTH        00368000 985
00044C 831F0068                      374          DC    X'831F0068'    UNAUTHORIZE TO CLEAR QUEUES     00369000
000450 4110 CC48      00C48          375          LA    R1,AUTHPARM    GET ADDR OF AUTHORIZE PARMS     00370000 977
000454 831F0068                      376          DC    X'831F0068'    AUTHORIZE THE OS MACHINE        00371000
000458 12FF                          377          LTR   R15,R15        DID IT TAKE?                    00372000
00045A 4770 C466      00466          378          BNZ   INITFAIL       NO--FAILURE                    00373000 381
00045E 9201 CBD2      00BD2          379          MVI   INITFLAG,1     OS/VMCF IS INITIALIZED          00374000 969
000462 47F0 C468      00468          380          B     AUTH2                                         00375000 385
000466 0000                          381 INITFAIL DC    H'0'           INITIALIZATION FAILED           00376000
                                     382 *                                                           00377000
                                     383 *        CONTINUE USER AUTHORIZE FUNCTION PROCESSING        00378000
                                     384 *                                                           00379000
000468                               385 AUTH2    DS    0H                                            00380000
000468 5800 A014      00014          386          L     R0,VMCPLENA    GET ECB LEN                     00381000 893
00046C 5900 CD04      00D04          387          C     R0,=F'4'       AT LEAST 4 BYTES LONG?          00382000
000470 4740 CA12      00A12          388          BL    ERR1           NO--ERROR                       00383000 851
000474 5810 A010      00010          389          L     R1,VMCPVADA    GET ADDR                        00384000 892
000478 45E0 C9E2      009E2          390          BAL   R14,KEYCHK     VALIDATE ADDRESS                00385000 821
00047C 4770 CA2A      00A2A          391          BNZ   ERR6           INVALID ADDRESS                 00386000 858
                                     392          ANOP  (NOT &CMS).NOXIT                               00386050
000480 D507 A020 CCD8 00020 00CD8    393          CLC   VMCPUSE,=CL8'EXTERNAL'  DID USER WISH TO HANDLE NON-  00386100 896
                                     394 *                                      X'4001' EXT. INTERUPTS?  00386150
000486 4770 C4A0      004A0          395          BNE   NOXITRP       -> NO NEED TO CHECK VMCPVADB THEN.  00386200 402
00048A BF1F CBD4      00BD4          396          ICM   R1,B'1111',XTRPTAD  ANY ADDRESS OF NON-X'4001' ITRPT  00386250 972
                                     397 *                                 HANDLER YET?                  00386300
00048E 4770 C4A0      004A0          398          BNZ   NOXITRP       YES--DON'T STORE NEW ONE.           00386350 402
000492 BF1F A018      00018          399          ICM   R1,B'1111',VMCPVADB  GET ADDRESS                  00386400 894
000496 47D0 C4A0      004A0          400          BNP   NOXITRP       NOT POS. ALREADY BAD,SKIP.          00386450 402
00049A D203 CBD4 A018 00BD4 00018    401          MVC   XTRPTAD,VMCPVADB  SAVE ADDRESS.                  00386500 972 894
0004A0                               402 NOXITRP  DS    0H                                            00386550
                                     403 .NOXIT   ANOP  ,                                             00386600 ?
                                     404 *                                                           00387000
                                     405 *        SCAN FOR DUPLICATE PATH AND DETERMINE INSERTION PT 00388000
                                     406 *                                                           00389000
                                     407 *                          NOTE SPECIFIC PRECEDE NONSPECIFIC 00390000
0004A0 5890 CA94      00A94          408          L     R9,PATHHEAD    GET FIRST PATHBLOK              00391000 931
0004A4 4170 CA94      00A94          409          LA    R7,PATHHEAD    LAGGING PTR FOR INSERTION       00392000 931
0004A8 1299                          410 BELOOP1  LTR   R9,R9           END OF LIST?                    00393000
0004AA 47D0 C510      00510          411          BNP   BEDONE1       YES--INSERT HERE                00394000 434
0004AE 9540 9004      00004          412          CLI   PATHUSER,C' '  IS THIS PATHBLOK SPECIFIC?      00395000 1024
0004B2 4780 C4F2      004F2          413          BE    BENSPEC1       NO--SPECIAL HANDLING            00396000 427
0004B6 9180 A000      00000          414          TM    VMCPFLG1,VMCPAUTS  AUTHORIZE SPECIFIC?         00397000 869 870
0004BA 4780 C504      00504          415          BZ    BENEXT1        NO--DON'T INSERT YET            00398000 431
0004BE 4110 A008      00008          416          LA    R1,VMCPUSER    GET ADDR OF USERID              00399000 891
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
0004C2 D507 A008 CCC0 00008 00CC0   417          CLC   VMCPUSER,=CL8'**  * FOR USERID?                00400000 891
0004C8 4770 C4D0      004D0         418          BNE   *+8             NO                    00401000
0004CC 4110 CB28      00B28         419          LA    R1,VMUSER       GET OUR USERID        00402000 954
0004D0 D507 9004 1000 00004 00000   420          CLC   PATHUSER,0(R1)  MATCH ON USERID?      00403000 1024
0004D6 4770 C504      00504         421          BNE   BENEXT1         NO--NOT DUPLICATE     00404000 431
0004DA D500 9021 A006 00021 00006   422          CLC   PATHLOCT,VMCPSRCT  LOCAL TASSK ID MATCH? 00405000 1033 889
0004E0 4770 C504      00504         423          BNE   BENEXT1         NO--NOT DUPLICATE     00406000 431
0004E4 D500 9020 A007 00020 00007   424          CLC   PATHREMT,VMCPSNKT  REMOTE TASK ID MATCH 00407000 1032 890
0004EA 4770 C504      00504         425          BNE   BENEXT1         NO                    00408000 431
0004EE 47F0 C5AC      005AC         426          B     AUTHDUPL        THIS IS A DUPLICATE   00409000 469
0004F2 9180 A000      00000         427 BENSPEC1 TM    VMCPFLG1,VMCPAUTS  SPECIFIC REQUEST?  00410000 869 870
0004F6 4770 C510      00510         428          BNZ   BEDONE1         YES--INSERT HERE BEFORE NONSPECIFICS 00411000 434
0004FA D500 9021 A006 00021 00006   429          CLC   PATHLOCT,VMCPSRCT  MATCH ON LOCAL TASK ID? 00412000 1033 889
000500 4780 C5AC      005AC         430          BE    AUTHDUPL        YES--THIS IS A DUPLICATE REQUEST 00413000 469
000504 4170 9000      00000         431 BENEXT1  LA    R7,PATHLINK     UPDATE LAGGING PTR    00414000 1023
000508 5890 9000      00000         432          L     R9,PATHLINK     GET NEXT PATHBLOK     00415000 1023
00050C 47F0 C4A8      004A8         433          B     BELOOP1         CONTINUE              00416000 410
000510                              434 BEDONE1  DS    0H                                    00417000
000510 D503 CAA4 CAEC 00AA4 00AEC   435          CLC   NUMPATH,MAXPATH  PATH LIMIT TO BE EXCEEDED? 00418000 935 947
000516 47B0 CA32      00A32         436          BNL   ERR10           YES--GIVE ERROR       00419000 860
00051A 5890 CA98      00A98         437          L     R9,FREEPATH     GET A FREE PATHBLOK   00420000 932
00051E 1299                         438          LTR   R9,R9           IS THERE ONE?         00421000
000520 47D0 C52E      0052E         439          BNP   BEGM1          NO--GET ONE VIA GETMAIN 00422000 442
000524 D203 CA98 9000 00A98 00000   440          MVC   FREEPATH,PATHLINK  REMOVE FROM FREELIST 00423000 932 1023
00052A 47F0 C53E      0053E         441          B     BEINS1          GO INSERT IT          00424000 446
00052E 4100 0022      00022         442 BEGM1    LA    R0,PATHLEN      LENGTH OF ONE         00425000 1034
000532 45E0 C9F0      009F0         443          BAL   R14,GETMAIN     GETMAIN ONE           00426000 833
000536 1891                         444          LR    R9,R1           GET ADDR OF IT        00427000
000538 D721 1000 1000 00000 00000   445          XC    0(PATHLEN,R1),0(R1)  CLEAR IT         00428000 1034
00053E                              446 BEINS1   DS    0H                                    00429000
00053E D203 9000 7000 00000 00000   447          MVC   PATHLINK,0(R7)  INSERT IN PATHBLOK LIST 00430000 1023
000544 5097 0000      00000         448          ST    R9,0(R7)                              00431000
000548 5800 CAA4      00AA4         449          L     R0,NUMPATH                            00432000 935
00054C 5A00 CCEC      00CEC         450          A     R0,=F'1'        INCR ACTIVE PATH COUNT 00433000
000550 5000 CAA4      00AA4         451          ST    R0,NUMPATH      STORE NEW VALUE       00434000 935
000554 D203 900C CA90 0000C 00A90   452          MVC   PATHTCB,CALLTCB  CALLER'S TCB          00435000 1026 930
00055A D203 9010 A010 00010 00010   453          MVC   PATHECB,VMCPVADA  ECB ADDRESS FOR POSTING 00436000 1027 892
000560 D703 9014 9014 00014 00014   454          XC    PATHPNDQ,PATHPNDQ                     00437000 1028 1028
000566 D703 9018 9018 00018 00018   455          XC    PATHACTQ,PATHACTQ                     00438000 1029 1029
00056C D701 901C 901C 0001C 0001C   456          XC    PATHNPND,PATHNPND                     00439000 1030 1030
000572 D701 901E 901E 0001E 0001E   457          XC    PATHNACT,PATHNACT                     00440000 1031 1031
000578 D200 9021 A006 00021 00006   458          MVC   PATHLOCT,VMCPSRCT  LOCAL TASK IS SOURCE FOR AUTH 00441000 1033 889
00057E D200 9020 A007 00020 00007   459          MVC   PATHREMT,VMCPSNKT  REMOTE IS SINK       00442000 1032 890
000584 4110 A008      00008         460          LA    R1,VMCPUSER     GET USERID ADDRESS    00443000 891
000588 D507 A008 CCC0 00008 00CC0   461          CLC   VMCPUSER,=CL8'**  *?                  00444000 891
00058E 4770 C596      00596         462          BNE   *+8             NO                    00445000
000592 4110 CB28      00B28         463          LA    R1,VMUSER       GETY OUR USERID       00446000 954
000596 D207 9004 1000 00004 00000   464          MVC   PATHUSER,0(R1)  USERID OF REMOTE USER  00447000 1024
00059C 5810 9010      00010         465          L     R1,PATHECB      GET ECB ADDRESS       00448000 1027
0005A0 D703 1000 1000 00000 00000   466          XC    0(4,R1),0(R1)   UNPOST THE ECB         00449000
0005A6 1BFF                         467          SR    R15,R15         CLEAR RETURN CODE     00450000
0005A8 47F0 C6F2      006F2         468          B     RTRN            RETURN TO CALLER      00451000 570
0005AC                              469 AUTHDUPL DS    0H              HERE FOR DUPLICATE AUTHORIZE 00452000
0005AC 91F0 CA89      00A89         470          TM    CALLPSW+1,X'F0'  KEY ZERO?            00453000 929
0005B0 4780 C5BE      005BE         471          BZ    *+14            YES--SKIP TCB CHECK   00454000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

0005B4 D503 CA90 900C 00A90 0000C   472          CLC   CALLTCB,PATHTCB  SAME OS TASK?                        00455000 930 1026
0005BA 4770 CA22      00A22         473          BNE   ERR4             NO--CAN'T DO                       00456000 855
0005BE D503 A010 9010 00010 00010   474          CLC   VMCPVADA,PATHECB  SAME ECB ADDR?                     00457000 892 1027
0005C4 4770 CA22      00A22         475          BNE   ERR4             NO--WON'T DO                       00458000 855
0005C8 1BFF                         476          SR    R15,R15          GOOD RETURN IF NO CHANGES          00459000
0005CA 47F0 C6F2      006F2         477          B     RTRN             RETURN TO SVC CALLER               00460000 570
                                    478 *                                                                   00461000
                                    479 *          UNAUTHORIZE PROCESSING - PURGE QUEUES                    00462000
                                    480 *                                                                   00463000
0005CE                              481 UNAUTH   DS    0H                                                   00464000
0005CE 5880 9018      00018         482          L     R8,PATHACTQ      GET FIRST ACTVBLOK                 00465000 1029
                            00000   483          USING ACTVBLOK,R8                                         00466000 1038
0005D2 1288                         484 BFLOOP1  LTR   R8,R8            END OF QUEUE?                      00467000
0005D4 47D0 C652      00652         485          BNP   BFDONE1          YES                                00468000 519
0005D8 4170 CC20      00C20         486          LA    R7,MISCPARM      WHERE TO BUILD PARMS               00469000 976
                                    487          DROP  R10              DROP USER'S VMCP ADDRESSING        00470000
                            00000   488          USING VMCPARM,R7       ADDRESS OUR VMCPARM                00471000 865
0005DC D727 7000 7000 00000 00000   489          XC    0(VMCPLEN,R7),0(R7)  CLEAR IT                     00472000 897
0005E2 D201 7002 CD18 00002 00D18   490          MVC   VMCPFUNC,=AL2(VMCPCANC)  SET FOR CANCEL           00473000 873 880
0005E8 9180 8012      00012         491          TM    ACTVSTAT,ACTVSINK  ARE WE SINK FOR REQUEST?         00474000 1043 1044
0005EC 4780 C5F6      005F6         492          BZ    *+10             NO                                 00475000
0005F0 D201 7002 CD20 00002 00D20   493          MVC   VMCPFUNC,=AL2(VMCPRJCT)  IF SO MUST REJECT IN STEAD OF C 00476000 873 885
0005F6 D203 7004 800C 00004 0000C   494          MVC   VMCPMID,ACTVMID  MESSAGE ID                       00477000 887 1041
0005FC D207 7008 8004 00008 00004   495          MVC   VMCPUSER,ACTVUSER  USERID                          00478000 891 1040
000602 D207 7020 CCE0 00020 00CE0   496          MVC   VMCPUSE,=CL8'UNAUTH'  USER DOUBLEWORD              00479000 896
000608 1817                         497          LR    R1,R7            GET ADDRESS OF PARM                00480000
00060A 831F0068                     498          DC    X'831F0068'      REJECT/CANCEL                      00481000
                                    499          DROP  R7                                                  00482000
                            00000   500          USING VMCPARM,R10      REVERT TO NORMAL ADDRESSING        00483000 865
00060E D203 9018 8000 00018 00000   501          MVC   PATHACTQ,ACTVLINK  REMOVE FROM HEAD OF QUEUE       00484000 1029 1039
000614 D203 8000 CAA0 00000 00AA0   502          MVC   ACTVLINK,FREEACTV  ADD TO FREE LIST                00485000 1039 934
00061A 5080 CAA0      00AA0         503          ST    R8,FREEACTV                                        00486000 934
00061E 9180 8012      00012         504          TM    ACTVSTAT,ACTVSINK  ARE WE SINK?                    00487000 1043 1044
000622 4770 C64A      0064A         505          BNZ   BFNDECR1          YES--NO DECREMENT REQUIRED         00488000 516
000626 4800 901E      0001E         506          LH    R0,PATHNACT      GET ACTIVE COUNT                   00489000 1031
00062A 5B00 CCEC      00CEC         507          S     R0,=F'1'                                            00490000
00062E 47B0 C634      00634         508          BNM   *+6                                                 00491000
000632 0000                         509          DC    H'0'                                                00492000
000634 4000 901E      0001E         510          STH   R0,PATHNACT                                         00493000 1031
000638 5800 CAAC      00AAC         511          L     R0,NUMACTV       GET SYSTEM ACTIVE COUNT            00494000 937
00063C 5B00 CCEC      00CEC         512          S     R0,=F'1'                                            00495000
000640 47B0 C646      00646         513          BNM   *+6                                                 00496000
000644 0000                         514          DC    H'0'                                                00497000
000646 5000 CAAC      00AAC         515          ST    R0,NUMACTV                                          00498000 937
00064A                              516 BFNDECR1 DS    0H                                                   00499000
00064A 5880 9018      00018         517          L     R8,PATHACTQ      GET NEW HEAD OF QUEUE              00500000 1029
00064E 47F0 C5D2      005D2         518          B     BFLOOP1          CONTINUE                           00501000 484
000652                              519 BFDONE1  DS    0H                                                   00502000
000652 5880 9014      00014         520          L     R8,PATHPNDQ      GET FIRST PENDBLOK                 00503000 1028
                            00000   521          USING PENDBLOK,R8                                         00504000 1049
000656 1288                         522 BFLOOP2  LTR   R8,R8            END OF LIST?                       00505000
000658 47D0 C698      00698         523          BNP   BFDONE2          YES                                00506000 539
00065C D203 9014 8000 00014 00000   524          MVC   PATHPNDQ,PENDLINK  REMOVE                          00507000 1028 1050
000662 D203 8000 CA9C 00000 00A9C   525          MVC   PENDLINK,FREEPEND                                  00508000 1050 933
000668 5080 CA9C      00A9C         526          ST    R8,FREEPEND      ADD TO FREE LIST                   00509000 933
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

00066C 4800 901C       0001C          527          LH    R0,PATHNPND    GET COUNT FOR PATH                  00510000 1030
000670 5B00 CCEC       00CEC          528          S     R0,=F'1'                           00511000
000674 47B0 C67A       0067A          529          BNM   *+6                               00512000
000678 0000                           530          DC    H'0'                               00513000
00067A 4000 901C       0001C          531          STH   R0,PATHNPND                       00514000 1030
00067E 5800 CAA8       00AA8          532          L     R0,NUMPEND     GET SYSTEM COUNT    00515000 93E
000682 5B00 CCEC       00CEC          533          S     R0,=F'1'                           00516000
000686 47B0 C68C       0068C          534          BNM   *+6                               00517000
00068A 0000                           535          DC    H'0'                               00518000
00068C 5000 CAA8       00AA8          536          ST    R0,NUMPEND                         00519000 93E
000690 5880 9014       00014          537          L     R8,PATHPNDQ    GET NEW FIRST ENTRY 00520000 1028
000694 47F0 C656       00656          538          B     BFLOOP2        CONTINUE            00521000 522
000698                                539 BFDONE2  DS    0H             HERE WHEN ALL PENDS GONE 00522000
000698 4800 901C       0001C          540          LH    R0,PATHNPND    GET PEND COUNT      00523000 1030
00069C 4A00 901E       0001E          541          AH    R0,PATHNACT    AND ACTV COUNT      00524000 1031
0006A0 4780 C6A6       006A6          542          BZ    *+6            BETTER BE ZERO      00525000
0006A4 0000                           543          DC    H'0'           WHAT GIVES?         00526000
0006A6 1819                           544          LR    R1,R9          SAVE ADDR OF PATHBLOK 00527000
0006A8 5890 CA94       00A94          545          L     R9,PATHHEAD    SCAN TO TRY TO FIND IT 00528000 931
0006AC 4170 CA94       00A94          546          LA    R7,PATHHEAD    LAGGING PTR FOR DELETE 00529000 931
0006B0 1299                           547 BFLOOP3  LTR   R9,R9          END OF LIST?        00530000
0006B2 4720 C6B8       006B8          548          BP    *+6            BETTER NOT BE       00531000
0006B6 0000                           549          DC    H'0'           WHERE'S THE PATHBLOK 00532000
0006B8 1991                           550          CR    R9,R1          IS THIS IT?         00533000
0006BA 4780 C6CA       006CA          551          BE    BFFND3         YES                 00534000 555
0006BE 4170 9000       00000          552          LA    R7,PATHLINK    LAGGING PTR         00535000 1023
0006C2 5890 9000       00000          553          L     R9,PATHLINK    NEXT PATHBLOK       00536000 1023
0006C6 47F0 C6B0       006B0          554          B     BFLOOP3        CONTINUE SEARCH     00537000 547
0006CA                                555 BFFND3   DS    0H                                 00538000
0006CA D203 7000 9000  00000 00000    556          MVC   0(4,R7),PATHLINK                   00539000 1023
0006D0 D203 9000 CA98  00000 00A98    557          MVC   PATHLINK,FREEPATH  ADD TO FREE LIST 00540000 1023 932
0006D6 5090 CA98       00A98          558          ST    R9,FREEPATH                        00541000 932
0006DA 5800 CAA4       00AA4          559          L     R0,NUMPATH     GET PATH COUNT      00542000 935
0006DE 5B00 CCEC       00CEC          560          S     R0,=F'1'       DECREMENT           00543000
0006E2 47B0 C6E8       006E8          561          BNM   *+6                               00544000
0006E6 0000                           562          DC    H'0'                               00545000
0006E8 5000 CAA4       00AA4          563          ST    R0,NUMPATH                         00546000 935
0006EC 1BFF                           564          SR    R15,R15        SET RETURN CODE     00547000
0006EE 47F0 C6F2       006F2          565          B     RTRN           RETURN TO CALLER    00548000 570
                                      566 *                                               00549000
                                      567 *          RETURN FROM SVC                      00550000
                                      568 *                                               00551000
0006F2                                569 ERROR    DS    0H             HERE FOR ERROR RETURN 00552000
0006F2                                570 RTRN     DS    0H             HERE TO RETURN      00553000
                                      571          AIF   (&CMS).CMS3                       00554000
                                      572  CMS3    ANOP                                    00559000 ?
                                      573          AIF   (&MS).MS3                         00560000
0006F2 D203 CAC0 CCF0  00AC0 00CF0    574          MVC   DW(4),=X'00040000'                00561000 941
0006F8 D203 CAC4 CD08  00AC4 00D08    575          MVC   DW+4(4),=A(RTRNCMS2)  ADDR FOR KEY ZERO PSW 00562000 941 577
0006FE 8200 CAC0       00AC0          576          LPSW  DW             ENTER KEY ZERO TO SET SYS SAVE AREA 00563000 941
000702                                577 RTRNCMS2 DS    0H             ENTER KEY ZERO HERE 00564000
000702 5810 0528       00528          578          L     R1,CURRSAVE    GET CURRENT SYS SAVE AREA 00565000 583
000706 50F1 005C       0005C          579          ST    R15,EGPR15(R1)  SET USER RETURN CODE 00566000 584
00070A 58ED 000C       0000C          580          L     R14,12(R13)                        00567000
00070E 980C D014       00014          581          LM    R0,R12,20(R13)  RESTORE REGS       00568000
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000712 07FE                    582          BR    R14        RETURN TO SVC HANDLER                    00569000
                        00528  583 CURRSAVE EQU   X'0528'   OFFSET OF CURRSAVE IN NUCON              00570000
                        0005C  584 ESPR15   EQU   X'5C'     OFFSET OF R15 IN SYS SAVE                00571000
                               585          AGO   .COM3                                             00572000
                               586 .COM3    ANOP  ,                                                 00577000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    ASM 0201 20.29 10/25/81

                                   588 *
                                   589 *              VMCF EXTERNAL INTERRUPT HANDLER
                                   590 *
000714                             591 VMCFEXT  DS    0H
                                   592          AIF   (&CMS).CMS4
                                   593 .CMS4    ANOP  ,
                                   594          AIF   (&MS).MS4
                                   595          USING *,R15          TEMP ADDRESSABLITY ON ENTRY
000714 8000 F4BF       00BD3       596          SSM   DISABLE        DISABLE INTERRUPTS
000718 90EC D00C       0000C       597          STM   R14,R12,12(R13)  SAVE REGS
00071C 58C0 F5D4       00CE8       598          L     R12,=A(IEAVMCF)
                       00000       599          USING IEAVMCF,R12
                                   600          DROP  R15
000720 D501 1062 CD22  00062 00D22 601          CLC   98(2,R1),=X'4001'  VMCF INTERRUPT?
000726 4770 C9B6       009B6       602          BNE   EXTIGNOR       NO--IGNORE IT
                                   603          AGO   .COM4
                                   604 .COM4    ANOP  ,
00072A 41A0 CAF0       00AF0       605          LA    R10,EXTBUF     ADDR OF EXT IRPT BUFFER
                       00000       606          USING VMCMHDR,R10    ADDRESS IT
00072E 5800 CAB0       00AB0       607          L     R0,NUMIRPT     GET INTERRUPT COUNT
000732 5A00 CCEC       00CEC       608          A     R0,=F'1'       INCREMENT
000736 5000 CAB0       00AB0       609          ST    R0,NUMIRPT     SAVE FOR STATS
00073A 9501 CBD2       00BD2       610          CLI   INITFLAG,1     ARE WE INITIALIZED?
00073E 4770 C9B6       009B6       611          BNE   EXTIGNOR       NO--IGNORE INTERRUPT
000742 4810 A002       00002       612          LH    R1,VMCMFUNC    GET FUNCTION CODE
000746 1211                        613          LTR   R1,R1          VALID?
000748 4740 C9B6       009B6       614          BM    EXTIGNOR       NO--IGNORE
00074C 4910 CD10       00D10       615          CH    R1,=AL2(MAXFUNC)
000750 4720 C9B6       009B6       616          BH    EXTIGNOR       OUT OF RANGE
000754 4121 CC98       00C98       617          LA    R2,FUNCTAB(R1)  LOOK UP IN TABLE
000758 9102 2000       00000       618          TM    0(R2),IRPT     VALID FOR INTERRUPT?
00075C 4780 C9B6       009B6       619          BZ    EXTIGNOR       NO--IGNORE
000760 D200 CBD1 A006  00BD1 00006 620          MVC   LOCTASK,VMCMSRCT  ASSUME LOCAL IS SOURCE
000766 D200 CBD0 A007  00BD0 00007 621          MVC   REMTASK,VMCMSNKT  AND SINK IS REMOTE
00076C 9180 A000       00000       622          TM    VMCMSTAT,VMCMRESP  IS THIS A RESPONSE IRPT?
000770 4780 C77E       0077E       623          BZ    EASINK1        NO--THEN LOCAL IS SINK
000774 D501 A002 CD24  00002 00D24 624          CLC   VMCMFUNC,=AL2(VMCMIDEN)  RESP FOR IDENTIFY?
00077A 4770 C78A       0078A       625          BNE   EASRC1         NO--RESPONSE GOES TO SOURCE
00077E D200 CBD1 A007  00BD1 00007 626 EASINK1  MVC   LOCTASK,VMCMSNKT  LOC TASK IS SINK
000784 D200 CBD0 A006  00BD0 00006 627          MVC   REMTASK,VMCMSRCT  REMOTE IS SOURCE
00078A                             628 EASRC1   DS    0H
00078A 5890 CA94       00A94       629          L     R9,PATHHEAD    START SEARCHING FOR PATH
00078E 1299                        630 EALOOP1  LTR   R9,R9          END OF LIST?
000790 47D0 C7C2       007C2       631          BNP   EADONE1        YES--TOO BAD
000794 9540 9004       00004       632          CLI   PATHUSER,C' '  NONSPECIFIC?
000798 4780 C7B0       007B0       633          BE    EANSPEC1       YES
00079C D507 9004 A008  00004 00008 634          CLC   PATHUSER,VMCMUSER  USERID MATCH?
0007A2 4770 C7BA       007BA       635          BNE   EANEXT1        NO--GET NEXT ONE
0007A6 D500 9020 CBD0  00020 00BD0 636          CLC   PATHREMT,REMTASK  REMOTE TASK ID MATCH?
0007AC 4770 C7BA       007BA       637          BNE   EANEXT1        NO--GET NEXT
0007B0 D500 9021 CBD1  00021 00BD1 638 EANSPEC1 CLC   PATHLOCT,LOCTASK  LOCAL TASK ID MATCH?
0007B6 4780 C7C6       007C6       639          BE    EAFOUND1       YES
0007BA 5890 9000       00000       640 EANEXT1  L     R9,PATHLINK    GET NEXT PATHBLOK
0007BE 47F0 C78E       0078E       641          B     EALOOP1
0007C2                             642 EADONE1  DS    0H             HERE IF NO PATH FOUND
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0231 20.29 10/25/81

0007C2 47F0 C9B6       009B6          643           B      EXTIGNOR       IGNORE THE IRPT                          00642000 797
0007C6                                644 EAFOUND1  DS     0H             HERE WHEN PATHBLOK FOUND                 00643000
                                      645 *                                                                        00644000
                                      646 *                 BUILD AND QUEUE PENDBLOK                               00645000
                                      647 *                                                                        00646000
0007C6 5800 CADC       00ADC          648           L      R0,MAXPEND     GET MAX PENDING IRPTS FOR SPECIFIC PATH  00647000 945
0007CA 9540 9004       00004          649           CLI    PATHUSER,C' '  NONSPECIFIC?                             00648000 1024
0007CE 4770 C7D6       007D6          650           BNE    *+8            NO                                       00649000
0007D2 5800 CAE0       00AE0          651           L      R0,MAXPEND+4   GET MAX FOR NON-SPECIFIC                 00650000 945
0007D6 4900 901C       0001C          652           CH     R0,PATHNPND    WILL WE EXCEED LIMIT?                    00651000 1030
0007DA 4720 C81A       0081A          653           BH     EABLD2         NO--GO BUILD ONE                         00652000 672
0007DE D501 A002 CD24  00002 00D24    654           CLC    VMCMFUNC,=AL2(VMCMIDEN)  INCOMING IDENTIFY?             00653000 908 912
0007E4 4780 C9B6       009B6          655           BE     EXTIGNOR       YES--JUST IGNORE IT                      00654000 797
0007E8 5880 9014       00014          656           L      R8,PATHPNDQ    SCAN PENDQ FOR IDENTIFYS                 00655000 1028
0007EC 4170 9014       00014          657           LA     R7,PATHPNDQ                                             00656000 1028
                                00000  658           USING  PENDBLOK,R8    ADDRESS PENDBLOK                         00657000 1049
0007F0 1288                           659 EALOOP2   LTR    R8,R8          END OF LIST?                             00658000
0007F2 47D0 C80C       0080C          660           BNP    EADONE2        YES                                      00659000 666
0007F6 D501 8006 CD24  00006 00D24    661           CLC    (VMCMFUNC-VMCMHDR)+PENDVMCM,=AL2(VMCMIDEN)  IDENTIFY?    00660000 908 899
0007FC 4780 C810       00810          662           BE     EADEL2         YES--REPLACE IT                          00661000 669
000800 4170 8000       00000          663           LA     R7,PENDLINK                                             00662000 1050
000804 5880 8000       00000          664           L      R8,PENDLINK    NEXT                                     00663000 1050
000808 47F0 C7F0       007F0          665           B      EALOOP2        CONTINUE SEARCH                          00664000 659
00080C                                666 EADONE2   DS     0H             HERE IF NO QUEUED IDENTIFYIES            00665000
00080C 47F0 C9B6       009B6          667           B      EXTIGNOR       IGNORE INCOMING IRPT                     00666000 797
                                      668 *                 ***THIS SHOULD BE ENHANCED****                         00667000
000810                                669 EADEL2    DS     0H                                                      00668000
000810 D203 7000 8000  00000 00000    670           MVC    0(4,R7),PENDLINK  REMOVE FROM PDNQ                      00669000 1050
000816 47F0 C856       00856          671           B      EAINS2         GO FILL IN WITH NEW IRPT AND INSERT      00670000 689
00081A                                672 EABLD2    DS     0H             HERE TO BUILD A NEW PENDLBOK             00671000
00081A 5880 CA9C       00A9C          673           L      R8,FREEPEND    GET ONE FROM FREE LIST                   00672000 933
00081E 1288                           674           LTR    R8,R8          IS THERE ONE?                            00673000
000820 47D0 C82E       0082E          675           BNP    EAGM2          NO--GETMAIN ONE                          00674000 678
000824 D203 CA9C 8000  00A9C 00000    676           MVC    FREEPEND,PENDLINK  REMOVE FROM LIST                    00675000 933 1050
00082A 47F0 C83E       0083E          677           B      EABLD2A        CONTINUE                                 00676000 682
00082E 4100 002C       0002C          678 EAGM2     LA     R0,PENDLEN     LENGTH OF BLOCK                          00677000 1052
000832 45E0 C9F0       009F0          679           BAL    R14,GETMAIN    GET CORE FOR SAM                         00678000 833
000836 D72B 1000 1000  00000 00000    680           XC     0(PENDLEN,R1),0(R1)  CLEAR IT                           00679000 1052
00083C 1881                           681           LR     R8,R1          SAVE ADDR OF IT                          00680000
00083E                                682 EABLD2A   DS     0H                                                      00681000
00083E 4800 901C       0001C          683           LH     R0,PATHNPND    GET PENDING IRPT COUNT                   00682000 1030
000842 5A00 CCEC       00CEC          684           A      R0,=F'1'                                                00683000
000846 4000 901C       0001C          685           STH    R0,PATHNPND                                             00684000 1030
00084A 5800 CAA8       00AA8          686           L      R0,NUMPEND                                              00685000 936
00084E 5A00 CCEC       00CEC          687           A      R0,=F'1'                                                00686000
000852 5000 CAA8       00AA8          688           ST     R0,NUMPEND     SYSTEM COUNT                             00687000 936
000856                                689 EAINS2    DS     0H             HERE TO INSERT                           00688000
                                      690 *                 NOTE PRIORITY GOES FIRST, FIFO TOHERWISE                00689000
000856 D227 8004 A000  00004 00000    691           MVC    PENDVMCM(VMCMLEN),VMCMHDR  COPY IRPT BUFFER              00690000 1051 923
00085C 1818                           692           LR     R1,R8          ADDR OF BUFFER TO INSERT                 00691000
00085E 5880 9014       00014          693           L      R8,PATHPNDQ    SCAN TO FIND INSERT POINT                00692000 1028
000862 4170 9014       00014          694           LA     R7,PATHPNDQ                                             00693000 1028
000866 1288                           695 EALOOP3   LTR    R8,R8          END OF LIST?                             00694000
000868 47D0 C888       00888          696           BNP    EADONE3        INSERT ON END                            00695000 704
00086C 9120 A000       00000          697           TM     VMCMSTAT,VMCMPRTY  PRIORITY REQUEST?                    00696000 903 906
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
000870 4780 C87C       0087C         698           BZ    EANEXT3         NO--INSERT ON END OF CHAIN                00697000 701
000874 9120 8004       00004         699           TM    (VMCMSTAT-VMCMHDR)+PENDVMCM,VMCMPRTY  PRTY PART OF QUEUE 00698000 903 899
000878 4780 C888       00888         700           BZ    EADONE3         NO--INSERT HERE                           00699000 704
00087C 4170 8000       00000         701 EANEXT3   LA    R7,PENDLINK     UPDATE LAGGING PTR                        00700000 1050
000880 5880 8000       00000         702           L     R8,PENDLINK     NEXT ONE                                  00701000 1050
000884 47F0 C866       00866         703           B     EALOOP3         CONTINUE SEARCH                           00702000 695
000888                               704 EADONE3   DS    0H                                                        00703000
000888 1881                          705           LR    R8,R1           RESTORE PENDBLOK ADDR                     00704000
00088A D203 8000 7000  00000 00000   706           MVC   PENDLINK,0(R7)  INSERT IN PEND QUEUE                      00705000 1050
000890 5087 0000       00000         707           ST    R8,0(R7)        COMPLETE INSERTION                        00706000
000894 4100 0004       00004         708           LA    R0,4            LENGTH OF ECB                             00707000
000898 5810 9010       00010         709           L     R1,PATHECB      ADDRESS OF ECB                            00708000 1027
00089C D203 CBC4 900C  00BC4 0000C   710           MVC   TCB,PATHTCB     TCB FOR VALIDATION                        00709000 964 1026
0008A2 45E0 C9E2       009E2         711           BAL   R14,KEYCHK       RE-VALIDATE ECB ADDRESS                   00710000 821
0008A6 4770 C8BA       008BA         712           BNZ   EANPOST3        SKIP POST IF INVALID                      00711000 717
0008AA 9140 1000       00000         713           TM    0(R1),X'40'     ALREADY POSTED?                           00712000
0008AE 4770 C8BA       008BA         714           BNZ   EANPOST3        YES--DON'T BOTHER                         00713000 717
0008B2 5800 CD0C       00D0C         715           L     R0,=X'3F000000'  COMPLETION CODE                        00714000
0008B6 45E0 C9E6       009E6         716           BAL   R14,POST        POST IT (ENDING UP WITH 7F)               00715000 826
0008BA                               717 EANPOST3  DS    0H                                                        00716000
                                     718 *                                                                         00717000
                                     719 *         DELETE ACTVBLOKS IF THIS IS FINAL INTERRUPT                     00718000
                                     720 *                                                                         00719000
0008BA 9180 A000       00000         721           TM    VMCMSTAT,VMCMRESP  RESPONSE IRPT?                       00720000 903 904
0008BE 4780 C942       00942         722           BZ    EANDEL4         NO--NOTHING TO DELETE                     00721000 755
0008C2 D501 A002 CD24  00002 00D24   723           CLC   VMCMFUNC,=AL2(VMCMIDEN)  IDENTIFY?                      00722000 908 912
0008C8 4780 C942       00942         724           BE    EANDEL4         YES--NOTHING QUEUED FOR IDENTIFY (TURKEY) 00723000 755
0008CC 4170 9018       00018         725           LA    R7,PATHACTQ     ACTIVE QUEUE                              00724000 1029
0008D0 5880 9018       00018         726           L     R8,PATHACTQ     FIRST ENTRY                               00725000 1029
                             00000   727           USING ACTVBLOK,R8     ADDRESS IT                                00726000 1038
0008D4 1288                          728 EALOOP4   LTR   R8,R8           END OF LIST?                              00727000
0008D6 47D0 C942       00942         729           BNP   EADONE4         YES--STOP                                 00728000 754
0008DA D507 8004 A008  00004 00008   730           CLC   ACTVUSER,VMCMUSER  MATCH ON USERID?                       00729000 1040 917
0008E0 4770 C936       00936         731           BNE   EANEXT4         NO--NEXT ONE                              00730000 751
0008E4 D503 800C A004  0000C 00004   732           CLC   ACTVMID,VMCMMID  MATCH ON MESSAGE ID?                    00731000 1041 913
0008EA 4770 C936       00936         733           BNE   EANEXT4         NO--NOT IT                                00732000 751
0008EE 9180 8012       00012         734           TM    ACTVSTAT,ACTVSINK  ARE WE THE SINK FOR REQUEST?           00733000 1043 1044
0008F2 4770 C936       00936         735           BNZ   EANEXT4         YES--THEN SHOULDN'T GET RESP IRPT         00734000 751
0008F6 D203 7000 8000  00000 00000   736           MVC   0(4,R7),ACTVLINK  REMOVE FROM LIST                       00735000 1039
0008FC D203 8000 CAA0  00000 00AA0   737           MVC   ACTVLINK,FREEACTV  ADD TO FREE LIST                      00736000 1039 934
000902 5080 CAA0       00AA0         738           ST    R8,FREEACTV                                               00737000 934
000906 4800 901E       001E          739           LH    R0,PATHNACT                                               00738000 1031
00090A 5B00 CCEC       00CEC         740           S     R0,=F'1'                                                  00739000
00090E 47B0 C916       00916         741           BNM   *+8                                                       00740000
000912 45E0 C9AE       009AE         742           BAL   R14,EXTFATAL                                              00741000 795
000916 4000 901E       001E          743           STH   R0,PATHNACT                                               00742000 1031
00091A 5800 CAAC       00AAC         744           L     R0,NUMACTV                                                00743000 937
00091E 5B00 CCEC       00CEC         745           S     R0,=F'1'                                                  00744000
000922 47B0 C92A       0092A         746           BNM   *+8                                                       00745000
000926 45E0 C9AE       009AE         747           BAL   R14,EXTFATAL                                              00746000 795
00092A 5000 CAAC       00AAC         748           ST    R0,NUMACTV                                                00747000 937
00092E 5887 0000       00000         749           L     R8,0(R7)        NEXT ACTVBLOK                             00748000
000932 47F0 C8D4       008D4         750           B     EALOOP4         CONTINUE                                  00749000 728
000936 4170 8000       00000         751 EANEXT4   LA    R7,ACTVLINK     UPDATE ACTIVE LINK                        00750000 1039
00093A 5880 8000       00000         752           L     R8,ACTVLINK                                               00751000 1039
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
00093E 47F0 C8D4       008D4         753           B     EALOOP4         CONTINUE                                  00752000 728
000942                               754 EADONE4   DS    0H                                                        00753000
000942                               755 EANDEL4   DS    0H                                                        00754000
                                     756 *                                                                         00755000
                                     757 *           BUILD ACTVBLOK IF REQUEST REQUIRES RESP FROM US           00756000
                                     758 *                                                                         00757000
000942 9180 A000       00000         759           TM    VMCMSTAT,VMCMRESP  IS THIS FINAL IRPT?                    00758000 903 904
000946 4770 C9A2       009A2         760           BNZ   EANBLD5         YES--DON'T BUILD ONE                      00759000 781
00094A D501 A002 CD24  00002 00D24   761           CLC   VMCMFUNC,=AL2(VMCMIDEN)  IDENTIFY?                       00760000 908 912
000950 4780 C9A2       009A2         762           BE    EANBLD5         NO WAY TO TELL THIS TURKEY                00761000 781
000954 D501 A002 CD26  00002 00D26   763           CLC   VMCMFUNC,=AL2(VMCMSENX)  SNEDX?                         00762000 908 911
00095A 4780 C9A2       009A2         764           BE    EANBLD5         NO RECV REQUIRED FOR SENDX                00763000 781
00095E 5880 CAA0       00AA0         765           L     R8,FREEACTV     GET ACTVBLOK FROM FREE LIST               00764000 934
000962 1288                          766           LTR   R8,R8           DID WE GET ONE?                           00765000
000964 47D0 C972       00972         767           BNP   EAGM5           NO--GETMAIN ONE                           00766000 770
000968 D203 CAA0 8000  00AA0 00000   768           MVC   FREEACTV,ACTVLINK  REMOVE FROM LIST                      00767000 934 1039
00096E 47F0 C982       00982         769           B     EABLD5          BUILD IT                                  00768000 774
000972 4100 0013       00013         770 EAGM5     LA    R0,ACTVLEN      LENGTH OF BLOCK                           00769000 1045
000976 45E0 C9F0       009F0         771           BAL   R14,GETMAIN      ALLOC STOREAGE FOR IT                     00770000 833
00097A D712 1000 1000  00000 00000   772           XC    0(ACTVLEN,R1),0(R1)  CLEAR IT                           00771000 1045
000980 1881                          773           LR    R8,R1           ADDRESS IT                                00772000
000982                               774 EABLD5    DS    0H                                                        00773000
000982 D207 8004 A008  00004 00008   775           MVC   ACTVUSER,VMCMUSER  COPY USERID                           00774000 1040 917
000988 D203 800C A004  0000C 00004   776           MVC   ACTVMID,VMCMMID                                          00775000 1041 913
00098E D201 8010 A002  00010 00002   777           MVC   ACTVFUNC,VMCMFUNC  FUNCTION                              00776000 1042 908
000994 9280 8012       00012         778           MVI   ACTVSTAT,ACTVSINK  WE ARE SINK FOR REQUEST                00777000 1043 1044
000998 D203 8000 9018  00000 00018   779           MVC   ACTVLINK,PATHACTQ                                        00778000 1039 1029
00099E 5080 9018       00018         780           ST    R8,PATHACTQ     ADD TO FRONT OF ACTIVE QUEUE              00779000 1029
0009A2                               781 EANBLD5   DS    0H                                                        00780000
                                     782 *                                                                         00781000
                                     783 *           EXTERNAL INTERRUPT HANDLER EXIT                           00782000
                                     784 *                                                                         00783000
0009A2                               785 EXTEXIT   DS    0H                                                        00784000
                                     786           AIF   (&CMS).CMS5                                             00785000
                                     787 .CMS5     ANOP  ,                                                       00787000 ?
                                     788           AIF   (&MS).MS5                                               00788000
0009A2 98EC D00C       00 00C        789           LM    R14,R12,12(R13)  RESTORE REGS                           00789000
0009A6 07FE                          790           BR    R14             RETURN TO EXT IRPT HANDLER                00790000
                                     791           AGO   .COM5                                                    00791000
                                     792 .COM5     ANOP  ,                                                       00795000 ?
0009A8 980F CA44       00A44         793           LM    R0,R15,EXTSAVE  RESTORE REGS                            00796000 928
0009AC 07F2                          794           BR    R2              RETURN TO HANDLER                         00797000
0009AE 900F CB84       00B84         795 EXTFATAL  STM   R0,R15,FATALSV  SAVE REGS FROM ERROR                    00798000 963
0009B2 47F0 C9A2       009A2         796           B     EXTEXIT         GO EXIT IMMEDIATELY                       00799000 785
0009B6                               797 EXTIGNOR  DS    0H              HERE TO IGNORE INTERRUPT                  00800000
                                     798           AIF   (NOT &CMS).NOXIT2                                        00801050
0009B6 BFFF CBD4       00BD4         799           ICM   R15,B'1111',XTRPTAD  USER HANDLER?                       00801100 972
0009BA 4780 C9D2       009D2         800           BZ    NOXITRP2                                                00801150 808
                                     801 * >>>>    STM   Done on VMCFEXT entry    <<<< *                       00801200
0009BE 50D0 CBDC       00BDC         802           ST    R13,XTRPTSA+4  SAVE OLD PTR IN NEW AREA.                 00801250 973
0009C2 18ED                          803           LR    R14,R13         MOVE OLD POINTER OVER.                    00801300
0009C4 41D0 CBD8       00BD8         804           LA    R13,XTRPTSA     ADDRESS OF NEW SAVE AREA.                 00801350 973
0009C8 50D0 E008       00008         805           ST    R13,8(,R14)     SAVE NEW POINTER IN OLD AREA.             00801400
0009CC 05EF                          806           BALR  R14,R15         GO TO USER ROUTINE.                       00801450
0009CE 58D0 D004       00004         807           L     R13,4(,R13)     RESTORE SAVE AREA ADDRESS.                00801500
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81
0009D2                              808 NOXITRP2 DS    0H                                                00801550
                                    809 .NOXIT2  ANOP  ,                                                 00801600 ?
0009D2 5800 CAB4      00AB4         810          L     R0,NUMIGNOR                                       00801650 939
0009D6 5A00 CCEC      00CEC         811          A     R0,=F'1'      INCREMENT IGNORE COUNT              00802000
0009DA 5000 CAB4      00AB4         812          ST    R0,NUMIGNOR                                       00803000 939
0009DE 47F0 C9A2      009A2         813          B     EXTEXIT       GO EXIT NOW                         00804000 785
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

                                    815          AIF   (&CMS).CMS6                                          00805000
                                    816 .CMS6    ANOP  ,                                                    00881000 ?
                                    817          AIF   (&MS).MS6                                            00882000
                                    818 *                                                                   00883000
                                    819 *                DUMMY PROTECT KEY CHECK                            00884000
                                    820 *                                                                   00885000
0009E2 1BFF                         821 KEYCHK   SR    R15,R15         SET RETURN CODE/COND CODE           00886000
0009E4 07FE                         822          BR    R14             RETURN FROM DUMMY ROUTINE           00887000
                                    823 *                                                                   00888000
                                    824 *                CMS POST INTERFACE                                 00889000
                                    825 *                                                                   00890000
0009E6                              826 POST     DS    0H                                                   00891000
0009E6 5001 0000       00000        827          ST    R0,0(R1)        STORE COMPLETION CODE               00892000
0009EA 9640 1000       00000        828          OI    0(R1),X'40'     ENSURE POSTED BIT SET               00893000
0009EE 07FE                         829          BR    R14             RETURN TO CALLER                    00894000
                                    830 *                                                                   00895000
                                    831 *                TEST GETMAIN ROUTINE                               00896000
                                    832 *                                                                   00897000
0009F0                              833 GETMAIN  DS    0H                                                   00898000
0009F0 4110 0007       00007        834          LA    R1,7            CONSTANT FOR DW ROUNDING            00899000
0009F4 1A01                         835          AR    R0,R1                                               00900000
0009F6 1601                         836          OR    R0,R1                                               00901000
0009F8 1701                         837          XR    R0,R1                                               00902000
0009FA 5810 CD28       00D28        838          L     R1,CORE         GET CURRENT PTR                     00903000 1091
0009FE 18F1                         839          LR    R15,R1          GET AGAIN                           00904000
000A00 1AF0                         840          AR    R15,R0          COMPUTE NEW END                     00905000
000A02 59F0 CD30       00D30        841          C     R15,CORE+8      ROOM?                               00906000 1091
000A06 47D0 CA0C       00A0C        842          BNH   *+6             YES--VERY GOOD                      00907000
000A0A 0000                         843          DC    H'0'            OUT OF CORE                         00908000
000A0C 50F0 CD28       00D28        844          ST    R15,CORE        SAVE NEW PTR                        00909000 1091
000A10 07FE                         845          BR    R14             RETURN TO CALLER                    00910000
                                    846          AGO   .COM6                                               00911000
                                    847 .COM6    ANOP  ,                                                    00935000 ?
                                    848 *                                                                   00936000
                                    849 *                ERROR ROUTINES                                     00937000
                                    850 *                                                                   00938000
000A12 41F0 0001       00001        851 ERR1     LA    R15,1           ECB/BUFFER TOO SMALL                00939000
000A16 47F0 C6F2       006F2        852          B     ERROR                                               00940000 569
000A1A 41F0 0002       00002        853 ERR2     LA    R15,2           INVALID SUBFUNCTION CODE            00941000
000A1E 47F0 C6F2       006F2        854          B     ERROR                                               00942000 569
000A22 41F0 0004       00004        855 ERR4     LA    R15,4           MACHINE/TASK NOT AUTHORIZED         00943000
                                    856 *                              TASK ID ALREADY IN USE              00944000
000A26 47F0 C6F2       006F2        857          B     ERROR                                               00945000 569
000A2A 41F0 0006       00006        858 ERR6     LA    R15,6           ADDRESS VAALIDATION FAILED          00946000
000A2E 47F0 C6F2       006F2        859          B     ERROR                                               00947000 569
000A32 41F0 000A       000A         860 ERR10    LA    R15,10          TOO MANY ACTIVE REQUESTS/PATHS      00948000
000A36 47F0 C6F2       006F2        861          B     ERROR                                               00949000 569
000A3A 4100 000C       000C         862 ERR12    LA    R0,12           NOTHING TO UNSTACK                  00950000
000A3E 47F0 C6F2       006F2        863          B     ERROR                                               00951000 569
                                    864          VMCPARM                                                   00952000
000000                              865+VMCPARM  DSECT ,                                                   00009000
                                    866+*                                                                  00011000
                                    867+*                VMCPARM - VMCF PARAMETER BLOCK                    00012000
                                    868+*                                                                  00013000
000000                              869+VMCPFLG1 DS    X               FLAGS                               00014000
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

                           00080  870+VMCPAUTS EQU   X'80'          AUTHORIZE SPECIFIC                        00015000
                           00040  871+VMCPPRTY EQU   X'40'          PRIORITY                                  00016000
000001                           872+          DS    X             RESERVED                                  00017000
000002                           873+VMCPFUNC  DS    H             FUNCTION CODE                             00018000
                           00000  874+VMCPAUTH EQU   X'0000'       AUTHORIZE                                 00019000
                           00001  875+VMCPUAUT EQU   X'0001'       UNAUTHORIZE                               00020000
                           00002  876+VMCPSEND EQU   X'0002'       SEND                                      00021000 ?
                           00003  877+VMCPSENR EQU   X'0003'       SEND/RECV                                 00022000
                           00004  878+VMCPSENX EQU   X'0004'       SENDX                                     00023000 ?
                           00005  879+VMCPRECV EQU   X'0005'       RECEIVE                                   00024000
                           00006  880+VMCPCANC EQU   X'0006'       CANCEL                                    00025000
                           00007  881+VMCPREPL EQU   X'0007'       REPLY                                     00026000 ?
                           00008  882+VMCPQUIE EQU   X'0008'       QUIESCE                                   00027000 ?
                           00009  883+VMCPRESM EQU   X'0009'       RESUME                                    00028000 ?
                           0000A  884+VMCPIDEN EQU   X'000A'       IDENTIFY                                  00029000 ?
                           0000B  885+VMCPRJCT EQU   X'000B'       REJECT                                    00030000
                           0001F  886+VMCPUNST EQU   X'001F'       UNSTACK                                   00031000
000004                           887+VMCPMID   DS    0F            MESSAGE ID                                00032000
000004                           888+VMCPUMID  DS    H             USER PORTION OF MESSAGE ID                00033000 ?
000006                           889+VMCPSRCT  DS    X             SOURCE TASK ID                            00034000
000007                           890+VMCPSNKT  DS    X             SINK TASK ID                              00035000
000008                           891+VMCPUSER  DS    CL8           USERID                                    00036000
000010                           892+VMCPVADA  DS    A             ADDRESS OF BUFFER A                       00037000
000014                           893+VMCPLENA  DS    A             LENGTH OF BUFFER A                        00038000
000018                           894+VMCPVADB  DS    A             ADDRESS OF BUFFER B                       00039000
00001C                           895+VMCPLENB  DS    F             LENGTH OF BUFFER B                        00040000
000020                           896+VMCPUSE   DS    XL8           USER DOUBLEWORD                           00041000
                           00028  897+VMCPLEN   EQU   *-VMCPARM     LENGTH OF BLOCK                           00042000
                                  898           VMCMHDR                                                     00953000
000000                           899+VMCMHDR   DSECT ,                                                     00009000
                                 900+*                                                                     00011000
                                 901+*         VMCMHDR - VMCF EXTERNAL INTERRUPT HEADER                    00012000
                                 902+*                                                                     00013000
000000                           903+VMCMSTAT  DS    X                                                     00014000
                           00080  904+VMCMRESP  EQU   X'80'          THIS IS FINAL (RESPONSE) IRPT             00015000
                           00040  905+VMCMRJCT  EQU   X'40'          SINK USER REJECTED THIS SEND OR SEND/RECV 00016000 ?
                           00020  906+VMCMPRTY  EQU   X'20'          PRIORITY MESSAGE                          00017000
000001                           907+VMCMEPLG  DS    X             ERROR CODE                                00018000 ?
000002                           908+VMCMFUNC  DS    H             FUNCTION OF ORIGINAL REQUEST              00019000
                           00002  909+VMCMSEND  EQU   X'0002'       SEND                                      00020000 ?
                           00003  910+VMCMSENR  EQU   X'0003'       SEND/RECV                                 00021000 ?
                           00004  911+VMCMSENX  EQU   X'0004'       SENDX                                     00022000
                           0000A  912+VMCMIDEN  EQU   X'000A'       IDENTIFY                                  00023000
000004                           913+VMCMMID   DS    0F            MESSAGE ID                                00024000
000004                           914+VMCMUMID  DS    H             USER PORTION OF MESSAGE ID                00025000 ?
000006                           915+VMCMSRCT  DS    X             SOURCE TASK ID                            00026000
000007                           916+VMCMSNKT  DS    X             SINK TASK ID                              00027000
000008                           917+VMCMUSER  DS    CL8           USERID                                    00028000
000010                           918+VMCMVADA  DS    A             ADDRESS OF BUFFER A                       00029000 ?
000014                           919+VMCMLENA  DS    F             LENGTH OF BUFFER A                        00030000 ?
000018                           920+VMCMVADB  DS    A             ADDRESS OF BUFFER B                       00031000 ?
00001C                           921+VMCMLENB  DS    F             LENGTH OF BUFFER B                        00032000 ?
000020                           922+VMCMUSE   DS    XL8           USER DOUBLEWORD                           00033000 ?
                           00028  923+VMCMLEN   EQU   *-VMCMHDR     LENGTH OF HEADER                          00034000
                                  924 *                                                                    00954000
```

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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.29 10/25/81

                                     925 *              LOCAL DATA AREAS                                                00955000
                                     926 *                                                                              00956000
000A42                               927 IEAVMCF  CSECT ,                                                               00957000
000A44                               928 EXTSAVE  DS    16A             SAVE AREA FOR EXTERNAL IRPT HANDLER            00958000
000A88                               929 CALLPSW  DS    D               CALLER'S PSW                                   00959000
000A90                               930 CALLTCB  DS    A               CALLER'S TCB                                   00960000
000A94 00000000                      931 PATHHEAD DC    A(0)            HEAD OF PATHBLOK CHAIN                         00961000
000A98 00000000                      932 FREEPATH DC    A(0)            FREE PATHBLOK LIST                             00962000
000A9C 00000000                      933 FREEPEND DC    A(0)            FREE PENDBLOK LIST                             00963000
000AA0 00000000                      934 FREEACTV DC    A(0)            FREE ACTVBLOK LIST                             00964000
000AA4 00000000                      935 NUMPATH  DC    F'0'            NUMBER OF PATHS ACTIVE                         00965000
000AA8 00000000                      936 NUMPEND  DC    F'0'            NUMBER OF PENDING INTERRUPTS                   00966000
000AAC 00000000                      937 NUMACTV  DC    F'0'            NUMBER OF ACTIVE REQUESTS                      00967000
000AB0 00000000                      938 NUMIRPT  DC    F'0'            NUMBER OF EXTERNAL VMCF INTERRUPTS             00968000
000AB4 00000000                      939 NUMIGNOR DC    F'0'            NUMBER OF VMCF INTERRUPTS IGNORED              00969000
000AB8 00000000                      940 NUMSVC   DC    F'0'            NUMBER OF SVC CALLS                            00970000
000AC0                               941 DW       DS    D                                                              00971000
000AC8                               942 DW2      DS    D                                                              00972000
000AD0                               943 CPUID    DS    D               WHERE CPU ID GOES                              00973000
000AD8                               944 SAVECR0  DS    F               CONTROL REG 0 SAVED HERE                       00974000
000ADC 0000000200000005              945 MAXPEND  DC    F'2,5'          PENDING INTERRUPT LIMIT                        00975000
000AE4 0000000200000005              946 MAXACTV  DC    F'2,5'          ACTIVE REQUEST LIMIT PER PATH                  00976000
000AEC 00000032                      947 MAXPATH  DC    F'50'           MAXIMUM NUMBER OF PATHS                        00977000
000AF0                               948          DS    0D              ALIGN                                          00978000
000AF0                               949 EXTBUF   DS    XL(VMCMLEN)     EXTERNAL IRPT BUFFER                           00979000 923
000B18                               950 XID      DS    0D              EXTENDED MACHINE ID                            00980000
000B18                               951          DS    CL8'VM/370'                                                    00981000
000B20                               952 VMREL    DS    XL3             VM RELEASE                                     00982000 ?
000B23                               953          DS    X,H,H           FILLER                                         00983000
000B28                               954 VMUSER   DS    CL8             OUR USERID                                     00984000
000B30                               955          DS    XL8             PP BIT MAP                            VMSP     00985000
                                     956          AIF   (&CMS).CMS8                                                    00986000
                                     957 .CMS8    ANOP  ,                                                            00989000 ?
                                     958          AIF   (&MS).MS8                                                      00990000
000B38                               959 SAVE     DS    18A             SAVE AREA FOR VMCFINIT/VMCFTERM                00991000
                                     960          AGO   .COM8                                                          00992000
                                     961 .COM8    ANOP  ,                                                            00997000 ?
000B80 00FFF800                      962 APAGENUM DC    A(X'FFF800')    GET PAGE NUMBER                                00998000 ?
000B84                               963 FATALSV  DS    18A               SAVE AREA FOR FATAL ERRS IN IRPT HANDLER      00999000
000BC4                               964 TCB      DS    A               CURRENT TCB FOR REQUESTS                       01000000
000BC8                               965 SVCEXIT  DS    A               EXIT TO SVC HANDLER                            01001000 ?
000BCC                               966 HVCRC    DS    F               RETURN CODE FORM VMCF HVC                      01002000
000BD0                               967 REMTASK  DS    X               REMOTE TASK ID                                 01003000
000BD1                               968 LOCTASK  DS    X               LOCAL TASK ID                                  01004000
000BD2 00                            969 INITFLAG DC    AL1(0)          INITIALIZED FLAG                               01005000
000BD3 00                            970 DISABLE  DC    X'00'           DISABLE INTERRUPTS                             01006000
                                     971          AIF   (NOT &CMS).NOXIT3                                              01006100
000BD4 00000000                      972 XTRPTAD  DC    AL4(0)          USER NON X'4001' ITRPT HANDLER.                01006200
000BD8 0000000000000000              973 XTRPTSA  DC    18F'0'                                                         01006300
                                     974 .NOXIT3  ANOP  ,                                                            01006400 ?
000C20                               975          DS    0D              ALIGN                                          01007000
000C20                               976 MISCPARM DS    XL(VMCMLEN)     MISC PARM FIELD                                01008000 923
000C48                               977 AUTHPARM DS    0D              PARM FIELD FOR AUTHORIZE                       01009100
000C48 4000                          978          DC    AL1(VMCPPRTY,0)   FLAGS                                        01010000 871
000C4A 0000                          979          DC    AL2(VMCPAUTH)   FUNCTION                                       01011000 874
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

000C4C 00000000                    980           DC    F'0'            MESSAGE ID                          01012000
000C50 4040404040404040            981           DC    CL8' '          USERID                              01013000
000C58 00000AF000000028            982           DC    A(EXTBUF,L'EXTBUF)  BUFFER A ADDR/LEN              01014000 949 949
000C60 0000000000000000            983           DC    A(0,0)          BUFFER B ADDR/LEN                   01015000
000C68 0000000000000000            984           DC    A(0,0)          UERR DOUBLEWORD                     01016000
000C70                             985 UAUTPARM  DS    0D              PARMS FOR UNAUTHORIZE               01017000
000C70 0000                        986           DC    AL1(0,0)        FLAGS                               01018000
000C72 0001                        987           DC    AL2(VMCPUAUT)   FUNCTION                            01019000 875
000C74 00000000                    988           DC    F'0'            MESSAGE ID                          01020000
000C78 4040404040404040            989           DC    CL8' '          USERID                              01021000
000C80 0000000000000000            990           DC    A(0,0)          BUFFER A                            01022000
000C88 0000000000000000            991           DC    A(0,0)          BUFFER B                            01023000
000C90 0000000000000000            992           DC    A(0,0)          USER DOUBLEWORD                     01024000
                                   993 *                                                                   01025000
                                   994 *           VMCF FUNCTION DECODING TABLE                            01026000
                                   995 *                                                                   01027000
000C98                             996 FUNCTAB   DS    0X              START OF TABLE                      01028000
                          00080    997 VALID     EQU   X'80'           CODE IS VALID FOR OS/VMCF           01029000
                          00040    998 SOURCE    EQU   X'40'           ISSUED BY SOURCE MACHINE            01030000
                          00020    999 ADDRA     EQU   X'20'           ADDR/LEN A PRESENT                  01031000
                          00010   1000 ADDRB     EQU   X'10'           ADDR/LEN B PRESENT                  01032000
                          00008   1001 IMMED     EQU   X'08'           IMMEDIATE REQUEST                   01033000
                          00004   1002 RESP      EQU   X'04'           RESPONSE FUNCTIONS                  01034000
                          00002   1003 IRPT      EQU   X'02'           INTERRUPT VALID FOR THIS CODE       01035000
000C98 C8                          1004          DC    AL1(VALID+SOURCE+IMMED)  00 - AUTH                01036000 997 998
000C99 C8                          1005          DC    AL1(VALID+SOURCE+IMMED)  01 - UNAUTH              01037000 997 998
000C9A E2                          1006          DC    AL1(VALID+SOURCE+ADDRA+IRPT)  02 - SEND           01038000 997 998 999
000C9B F2                          1007          DC    AL1(VALID+SOURCE+ADDRA+ADDRB+IRPT)  03 - SNED/RECV 01039000 997 998 999
000C9C E2                          1008          DC    AL1(VALID+SOURCE+ADDRA+IRPT)  04 - SENDX           01040000 997 998 999
000C9D AC                          1009          DC    AL1(VALID+ADDRA+IMMED+RESP)  05 - RECEIVE          01041000 997 999
000C9E CC                          1010          DC    AL1(VALID+SOURCE+IMMED+RESP)  06 - CANCEL          01042000 997 998
000C9F AC                          1011          DC    AL1(VALID+ADDRA+IMMED+RESP)  07 - REPLY            01043000 997 999
000CA0 00                          1012          DC    AL1(0)          08 - QUIESCE                        01044000
000CA1 00                          1013          DC    AL1(0)          09 - RESUME (INVALID FOR OS/VMCF)   01045000
000CA2 EA                          1014          DC    AL1(VALID+SOURCE+ADDRA+IMMED+IRPT)  10 - IDENTIFY 01046000 997 998 999
000CA3 8C                          1015          DC    AL1(VALID+IMMED+RESP)  11 - REJECT                  01047000 997 1001
000CA4 0000000000000000            1016          DC    19AL1(0)        UNUSED CODES                        01048000
000CB7 E8                          1017          DC    AL1(VALID+SOURCE+ADDRA+IMMED)  31 - UNSTACK       01049000 997 998 999
                          0001F    1018 MAXFUNC  EQU   *-FUNCTAB-1     MAX FUNCTION CODE VALUE             01050000
                                   1019 *                                                                  01051000
                                   1020 *          PATHBLOK                                                01052000
                                   1021 *                                                                  01053000
000000                             1022 PATHBLOK DSECT ,                                                   01054000
000000                             1023 PATHLINK DS    A               LINK TO NEXT PATH                   01055000
000004                             1024 PATHUSER DS    CL8             USERID                              01056000
                                   1025 *                              BLANK FOR NON-SPECIFIC              01057000
00000C                             1026 PATHTCB  DS    A               USER TCB ADDRESS                    01058000
000010                             1027 PATHECB  DS    A               USER ECB ADDRESS                    01059000
000014                             1028 PATHPNDQ DS    A               PENDING INTERRUPT QUEUE             01060000
000018                             1029 PATHACTQ DS    A               ACTIVE MESSAGE QUEUE                01061000
00001C                             1030 PATHNPND DS    H               NUMBER OF PENDING INTERRUPTS        01062000
00001E                             1031 PATHNACT DS    H               NUMBER OF ACTIVE MESSAGES           01063000
000020                             1032 PATHREMT DS    X               REMOTE TASK ID                      01064000
000021                             1033 PATHLOCT DS    X               LOCAL TASK ID                       01065000
                          00022    1034 PATHLEN  EQU   *-PATHBLOK      LENGTH OF BLOCK                     01066000
```

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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.29 10/25/81

                                    1035 *                                                                01067000
                                    1036 *               ACTVBLOK                                         01068000
                                    1037 *                                                                01069000
000000                              1038 ACTVBLOK DSECT ,              ACTIVE REQUEST BLOCK               01070000
000000                              1039 ACTVLINK DS    A              LINK TO NEXT ACTVBLOK ON QUEUE     01071000
000004                              1040 ACTVUSER DS    CL8            USERID (REMOTE)                    01072000
00000C                              1041 ACTVMID  DS    F              MESSAGE ID INCLUDING SINK/SOURCE TASK IDS 01073000
000010                              1042 ACTVFUNC DS    H              FUNCTION                           01074000
000012                              1043 ACTVSTAT DS    X              STATUS FLAGS                       01075000
                              00080 1044 ACTVSINK EQU   X'80'          WE ARE SINK FOR THIS REQUEST       01076000
                              00013 1045 ACTVLEN  EQU   *-ACTVBLOK     LENGTH OF BLOCK                    01077000
                                    1046 *                                                                01078000
                                    1047 *               PENDBLOK                                         01079000
                                    1048 *                                                                01080000
000000                              1049 PENDBLOK DSECT ,              PENDING INTERRUPT BLOCK            01081000
000000                              1050 PENDLINK DS    A              LINK TO NEXT ON QUEUE              01082000
000004                              1051 PENDVMCM DS    XL(VMCMLEN)    INTERRUPT HEADER                   01083000 923
                              0002C 1052 PENDLEN  EQU   *-PENDBLOK     LENGTH OF BLOCK                    01084000
                                    1053 *                                                                01085000
                                    1054 *               LITERALS                                         01086000
                                    1055 *                                                                01087000
000CB8                              1056 IEAVMCF  CSECT ,                                                 01088000
000CB8                              1057          LTORG ,                                                 01089000
000CB8 FFE4000000000000            1058                =X'FFE4000000000000'
000CC0 5C4040404040404040           1059                =CL8'*'
000CC8 E5D461E2D7404040             1060                =CL8'VM/SP'
000CD0 E5D461F3F7F04040             1061                =CL8'VM/370'
000CD8 C5E7E3C5D9D5C1D3             1062                =CL8'EXTERNAL'
000CE0 E4D5C1E4E3C84040             1063                =CL8'UNAUTH'
000CE8 00000000                     1064                =A(IEAVMCF)                                                12
000CEC 00000001                     1065                =F'1'
000CF0 00040000                     1066                =X'00040000'
000CF4 00000232                     1067                =A(BAEXHVC)                                                202
000CF8 0000023A                     1068                =A(BAEXDONE)                                               204
000CFC 0000000B                     1069                =F'11'
000D00 0000000C                     1070                =F'12'
000D04 00000004                     1071                =F'4'
000D08 00000702                     1072                =A(RTRNCMS2)                                               577
000D0C 3F000000                     1073                =X'3F000000'
000D10 001F                         1074                =AL2(MAXFUNC)                                              1018
000D12 0000                         1075                =AL2(VMCPAUTH)                                             874
000D14 001F                         1076                =AL2(VMCPUNST)                                             886
000D16 0001                         1077                =AL2(VMCPUAUT)                                             875
000D18 0006                         1078                =AL2(VMCPCANC)                                             880
000D1A 0005                         1079                =AL2(VMCPRECV)                                             879
000D1C 0003                         1080                =AL2(VMCPSENR)                                             877
000D1E 0028                         1081                =AL2(VMCMLEN)                                              923
000D20 000B                         1082                =AL2(VMCPRJCT)                                             885
000D22 4001                         1083                =X'4001'
000D24 000A                         1084                =AL2(VMCMIDEN)                                             912
000D26 0004                         1085                =AL2(VMCMSENX)                                             911
                                    1086          AIF   (&MS).MS7                                         01090000
                                    1087          AIF   (NOT &CMS).COM7                                   01091000
                                    1088 *                                                                01092000
                                    1089 *               CODE FOR NON-SQA TESTING                         01093000
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.29 10/25/81

                                   1090 *                                                                    01094000
000D28 0000100000001000                    1091 CORE      DC    A(AREA,AREA,AREAEND)  PTRS FOR STORAGE MGMT 01095000 1095 1095
000D34                             01000   1092           ORG   IEAVMCF+4096                               01096000 12
001000                             01000   1093           ORG   ,                                          01097000
001000                                     1094           DS    0D              ALIGN                      01098000
001000                                     1095 AREA      DS    4096F           CORE AREA                  01099000
                                   05000   1096 AREAEND   EQU   *               END OF AREA                01100000
                                           1097           AGO   .COM7                                      01101000
                                           1098 .COM7     ANOP  ,                                          01104000 ?
                                           1099 *                                                          01105000
                                           1100 *               REGISTER EQUATES                           01106000
                                           1101 *                                                          01107000
                                           1102           EQUREGS                                          01108000
                                   00000   1103+R0        EQU   0                                          00062000 ?
                                   00001   1104+R1        EQU   1                                          00062000 ?
                                   00002   1105+R2        EQU   2                                          00062000 ?
                                   00003   1106+R3        EQU   3                                          00062000 ?
                                   00004   1107+R4        EQU   4                                          00062000 ?
                                   00005   1108+R5        EQU   5                                          00062000 ?
                                   00006   1109+R6        EQU   6                                          00062000 ?
                                   00007   1110+R7        EQU   7                                          00062000 ?
                                   00008   1111+R8        EQU   8                                          00062000 ?
                                   00009   1112+R9        EQU   9                                          00062000 ?
                                   0000A   1113+R10       EQU   10                                         00062000 ?
                                   0000B   1114+R11       EQU   11                                         00062000 ?
                                   0000C   1115+R12       EQU   12                                         00062000 ?
                                   0000D   1116+R13       EQU   13                                         00062000 ?
                                   0000E   1117+R14       EQU   14                                         00062000 ?
                                   0000F   1118+R15       EQU   15                                         00062000 ?
                                           1119           END   ,               END OF MODULE              01109000
```

POS.ID	REL.ID	FLAGS	ADDRESS
0001	0001	0C	000024
0001	0001	0C	00002A
0001	0001	08	000041
0001	0001	0C	00004A
0001	0001	0C	000082
0001	0001	0C	0000A2
0001	0001	0C	000C58
0001	0001	0C	000CB8
0001	0001	0C	000CF4
0001	0001	0C	000CF8
0001	0001	0C	000D08
0001	0001	0C	000D28
0001	0001	0C	000D2C
0001	0001	0C	000D30

SYMBOL · LEN VALUE DEFN REFERENCES ASM 0231 20.29 10/25/81

```
ACTVBLOK 00001 00000000 01038  00213 00483 00727 01045
ACTVFUNC 00002 00000010 01042  00230 00269 00777
ACTVLEN  00001 00000013 01045  00218 00221 00770 00772
ACTVLINK 00004 00000000 01039  00216 00223 00285 00286 00303 00304 00501 00502 00736 00737 00751 00752 00768 00779
ACTVMID  00004 0000000C 01041  00229 00257 00494 00732 00776
ACTVSINK 00001 00000080 01044  00261 00266 00288 00491 00504 00734 00778
ACTVSTAT 00001 00000012 01043  00231 00261 00266 00288 00491 00504 00734 00778
ACTVUSER 00008 00000004 01040  00225 00226 00228 00495 00730 00775
ADDRA    00001 00000020 00999  00162 0100E 01007 01008 01009 01011 01014 01017
ADDRB    00001 00000010 01000  00168 01007
AREA     00004 00001000 01095  01091 01091
AREAEND  00001 00005000 01096  01091
AUTH     00002 00000408 00351  00121
AUTHDUPL 00002 000005AC 00469  00426 00430
AUTHPARM 00008 00000C48 00977  00375
AUTH2    00002 00000468 00385  00353 00380
BABLD2   00002 00000270 00222  00217
BACANC3  00004 00000316 00266  00260
BADEL3   00002 0000033E 00278  00265 00268 00270
BADONE1  00002 0000017C 00152  00141
BADONE3  00002 00000386 00306  00256
BAEXDONE 00004 0000023A 00204  01068
BAEXHVC  00004 00000232 00202  01067
BAFOUND1 00002 00000180 00154  00149
BAGM2    00004 00000260 00218  00215
BAIMMED1 00002 000001F6 00190  00183
BALOOP1  00002 00000148 00140  00151
BALOOP3  00002 000002E6 00255  00302 00305
BANADDRA 00004 000001AA 00168  00163
BANADDRB 00002 000001C2 00174  00169
BANDLD2  00002 000002B8 00238  00209 00211
BANDECR3 00002 00000372 00300  00289
BANEXT1  00004 00000174 00150  00145 00147
BANEXT3  00004 0000037A 00303  00258 00262 00267 00273
BANRESP3 00002 00000386 00307  00243 00251
BANSPEC1 00006 0000016A 00148  00143
BARECV3  00006 00000322 00269  00264
BARESP3  00002 000002DE 00252  00246 00248 00250
BASRC1   00002 00000144 00137  00134
BEDONE1  00002 00000510 00434  00411 00428
BEGM1    00004 0000052E 00442  00439
BEINS1   00002 0000053E 00446  00441
BELOOP1  00002 000004A8 00410  00433
BENEXT1  00004 00000504 00431  00415 00421 00423 00425
BENSPEC1 00004 000004F2 00427  00413
BFDONE1  00002 00000652 00519  00485
BFDONE2  00002 00000698 00539  00523
BFFND3   00002 000006CA 00555  00551
BFLOOP1  00002 000005D2 00484  00518
BFLOOP2  00002 00000656 00522  00538
BFLOOP3  00002 000006B0 00547  00554
BFNDECR1 00002 0000064A 00516  00505
CALLPSW  00008 00000A68 00929  00101 00158 00198 00470
CALLTCB  00004 00000A90 00930  00100 00100 00160 00452 00472
CORE     00004 00000D28 01091  00838 00841 00844
```

SYMBOL	LEN	VALUE	DEFN	REFERENCES
CPUID	00008	00000AD0	00943	00357 00358
CURRSAVE	00001	00000528	00583	00578
DISABLE	00001	00000BD3	00970	00097 00596
DMS0001A	00002	00000028	00035	00032
DMS0002A	00002	00000048	00044	00039
DMS0003A	00002	00000080	00069	00066
DMS0004A	00002	000000A0	00078	00073
DW	00008	00000AC0	00941	00196 00197 00198 00201 00574 00575 00576
DW2	00008	00000AC8	00942	00199 00200 00203
EABLD2	00002	0000081A	00672	00653
EABLD2A	00002	0000083E	00682	00677
EABLD5	00002	00000982	00774	00769
EADEL2	00002	00000810	00669	00662
EADONE1	00002	000007C2	00642	00631
EADONE2	00002	0000080C	00666	00660
EADONE3	00002	00000888	00704	00696 00700
EADONE4	00002	00000942	00754	00729
EAFOUND1	*00002*	*000007C6*	*00644*	*00639*
EAGM2	00004	0000082E	00678	00675
EAGM5	00004	00000972	00770	00767
EAINS2	00002	00000856	00689	00671
EALOOP1	00002	0000078E	00630	00641
EALOOP2	00002	000007F0	00659	00665
EALOOP3	00002	00000866	00695	00703
EALOOP4	00002	000008D4	00728	00750 00753
EANBLD5	00002	000009A2	00781	00760 00762 00764
EANDEL4	00002	00000942	00755	00722 00724
EANEXT1	00004	000007BA	00640	00635 00637
EANEXT3	00004	0000087C	00701	00698
EANEXT4	00004	00000936	00751	00731 00733 00735
EANPOST3	00002	000008BA	00717	00712 00714
EANSPEC1	00006	000007B0	00638	00633
EASINK1	00006	0000077E	00626	00623
EASRC1	00002	0000078A	00628	00625
EGPR15	00001	0000005C	00584	00579
ERROR	00002	00000EF2	00569	00852 00854 00857 00859 00861 00863
ERR1	*00004*	*00000A12*	*00851*	*00320 00388*
ERR10	00004	00000A32	00860	00189 00436
ERR12	00004	00000A3A	00862	00317
ERR2	00004	00000A1A	00853	00114 00116 00119
ERR4	00004	00000A22	00855	00123 00153 00161 00473 00475
ERR6	00004	00000A2A	00858	00110 00167 00173 00391
EXTBUF	00040	00000AF0	00949	00605 00982 00982
EXTEXIT	00002	000009A2	00785	00796 00813
EXTFATAL	00004	000009AE	00795	00742 00747
EXTIGNOR	00002	000009B6	00797	00602 00611 00614 00616 00619 00643 00655 00667
EXTSAVE	00004	00000A44	00928	00793
FATALSV	00004	00000B84	00963	00795
FREEACTV	00004	00000AA0	00934	00212 00216 00286 00287 00502 00503 00737 00738 00765 00768
FREEPATH	00004	00000A98	00932	00437 00440 00557 00558
FREEPEND	00004	00000A9C	00933	00322 00323 00525 00526 00673 00676
FUNCTAB	00001	00000C98	00996	00117 00617 01018
GETMAIN	00002	000009F0	00833	00219 00443 00679 00771
HVCRC	00004	00000BCC	00966	00204 00244 00271 00308
IEAVMCF	00001	00000000	00012	00024 00058 00099 00599 00927 01056 01064 01092

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.29 10/25/81

```
IGC211   00002 000000B2 00091 00042
IMMED    00001 00000008 01001 00182 00210 01004 01005 01009 01010 01011 01014 01015 01017
INITFAIL 00002 000004E6 00381 00359 00366 00378
INITFLAG 00001 00000BD2 00969 00122 00352 00379 00610
INITOK   00002 0000043C 00369 00364
IRPT     00001 00000002 01003 00618 01006 01007 01008 01014
KEYCHK   00002 000009E2 00821 00109 00166 00172 00339 00390 00711
LOCTASK  00001 00000BD1 00968 00131 00135 00148 00620 00626 00638
MAXACTV  00004 00000AE4 00946 00184 00187
MAXFUNC  00001 0000001F 01018 01074
MAXPATH  00004 00000AEC 00947 00435
MAXPEND  00004 00000ADC 00945 00648 00651
MISCPARM 00040 00000C20 00976 00191 00486
NOXITRP  00002 000004A0 00402 00395 00398 00400
NOXITRP2 00002 000009D2 00808 00800
NUMACTV  00004 00000AAC 00937 00235 00237 00295 00299 00511 00515 00744 00748
NUMIGNOR 00004 00000AB4 00939 00810 00812
NUMIRPT  00004 00000AB0 00938 00607 00609
NUMPATH  00004 00000AA4 00935 00435 00449 00451 00559 00563
NUMPEND  00004 00000AA8 00936 00324 00328 00532 00536 00686 00688
NUMSVC   00004 00000AB8 00940 00104 00106
PATHACTQ 00004 00000018 01029 00223 00224 00253 00254 00455 00455 00482 00501 00517 00725 00726 00779 00780
PATHBLOK 00001 00000000 01022 00139 01034
PATHECB  00004 00000010 01027 00338 00453 00465 00474 00709
PATHHEAD 00004 00000A94 00931 00138 00408 00409 00545 00546 00629
PATHLEN  00001 00000022 01034 00442 00445
PATHLINK 00004 00000000 01023 00150 00431 00432 00440 00447 00552 00553 00556 00557 00640
PATHLOCT 00001 00000021 01033 00148 00422 00429 00458 00638
PATHNACT 00002 0000001E 01031 00188 00232 00234 00290 00294 00457 00457 00506 00510 00541 00739 00743
PATHNPND 00002 0000001C 01030 00329 00333 00456 00456 00527 00531 00540 00652 00683 00685
PATHPNDQ 00004 00000014 01028 00314 00321 00341 00454 00454 00520 00524 00537 00656 00657 00693 00694
PATHREMT 00001 00000020 01032 00146 00424 00459 00636
PATHTCB  00004 0000000C 01026 00160 00452 00472 00710
PATHUSER 00008 00000004 01024 00142 00144 00185 00412 00420 00464 00632 00634 00649
PENDBLOK 00001 00000000 01049 00315 00521 00658 01052
PENDLEN  00001 0000002C 01052 00678 00680
PENDLINK 00004 00000000 01050 00321 00322 00524 00525 00663 00664 00670 00676 00701 00702 00706
PENDVMCM 00040 00000004 01051 00335 00661 00691 00699
POST     00002 000009E6 00826 00716
REMTASK  00001 00000BD0 00967 00132 00136 00146 00621 00627 00636
RESP     00001 00000004 01002 00242 01009 01010 01011 01015
RTRN     00002 00000EF2 00570 00309 00347 00468 00477 00565
RTRNCMS2 00002 00000702 00577 01072
R0       00001 00000000 01103 00104 00105 00106 00108 00164 00170 00184 00187 00188 00218 00232 00233 00234 00235 00236
                              00237 00290 00291 00294 00295 00296 00299 00318 00319 00324 00325 00328 00329 00330 00333
                              00337 00361 00386 00387 00442 00449 00450 00451 00506 00507 00510 00511 00512 00515 00527
                              00528 00531 00532 00533 00536 00540 00541 00559 00560 00563 00581 00607 00608 00609 00648
                              00651 00652 00678 00683 00684 00685 00686 00687 00688 00708 00715 00739 00740 00743 00744
                              00745 00748 00770 00793 00795 00810 00811 00812 00827 00835 00836 00837 00840 00862
R1       00001 00000001 01104 00107 00112 00113 00113 00115 00117 00120 00127 00130 00144 00171 00191 00192 00193 00195
                              00220 00221 00221 00334 00335 00338 00344 00344 00360 00373 00375 00389 00396 00399 00416
                              00419 00420 00444 00445 00445 00460 00463 00464 00465 00466 00466 00497 00544 00550 00578
                              00579 00601 00612 00613 00613 00615 00617 00680 00680 00681 00692 00705 00709 00713 00772
                              00772 00773 00827 00828 00834 00835 00836 00837 00838 00839
R10      00001 0000000A 01113 00107 00111 00487 00500 00605 00606
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.29 10/25/81

```
R12      00001 0000000C 01115 00021 00023 00024 00047 00055 00057 00058 00081 00095 00096 00098 00099 00581 00597 00598
                              00599 00789
R13      00001 0000000D 01116 00021 00027 00028 00029 00046 00046 00047 00055 00061 00062 00063 00080 00080 00081 00096
                              00580 00581 00597 00789 00802 00803 00804 00805 00807 00807
R14      00001 0000000E 01117 00021 00026 00027 00028 00029 00047 00049 00055 00060 00061 00062 00063 00081 00083 00096
                              00109 00166 00172 00219 00339 00390 00443 00580 00582 00597 00679 00711 00716 00742 00747
                              00771 00789 00790 00803 00805 00806 00822 00829 00845
R15      00001 0000000F 01118 00022 00025 00048 00048 00056 00059 00082 00082 00204 00208 00208 00244 00245 00245 00247
                              00249 00271 00272 00272 00308 00346 00346 00377 00377 00467 00467 00476 00476 00564 00564
                              00579 00595 00600 00793 00795 00799 00806 00821 00821 00839 00840 00841 00844 00851 00853
                              00855 00858 00860
R2       00001 00000002 01105 00117 00118 00133 00162 00168 00182 00210 00242 00617 00618 00794
R7       00001 00000007 01110 00254 00285 00301 00303 00409 00431 00447 00448 00486 00488 00489 00489 00497 00499 00546
                              00552 00556 00657 00663 00670 00694 00701 00706 00707 00725 00736 00749 00751
R8       00001 00000008 01111 00212 00213 00214 00214 00220 00224 00253 00255 00255 00287 00301 00304 00314 00315 00316
                              00316 00323 00341 00342 00342 00482 00483 00484 00484 00503 00517 00520 00521 00522 00522
                              00526 00537 00656 00658 00659 00659 00664 00673 00674 00674 00681 00692 00693 00695 00695
                              00702 00705 00707 00726 00727 00728 00728 00738 00749 00752 00765 00766 00766 00773 00780
R9       00001 00000009 01112 00138 00139 00140 00140 00150 00408 00410 00410 00432 00437 00438 00438 00444 00448 00544
                              00545 00547 00547 00550 00553 00558 00629 00630 00630 00640
SAVE     00004 00000B38 00959 00026 00060
SAVECRO  00004 00000AD8 00944 00370 00371 00372
SOURCE   00001 00000040 00998 00133 01004 01005 01006 01007 01008 01010 01014 01017
TCB      00004 00000BC4 00964 00710
UAUTPARM 00008 00000C70 00985 00373
UNAUTH   00002 000005CE 00481 00178
UNSTACK  00002 0000038E 00313 00176
UNSTK2   00002 00000402 00345 00340 00343
VALID    00001 00000080 00997 00118 01004 01005 01006 01007 01008 01009 01010 01011 01014 01015 01017
VMCFEXT  00002 00000714 00591 00034
VMCFINIT 00004 00000000 00021 00020 00022
VMCFTERM 00004 0000005A 00055 00054 00056
VMCMFUNC 00002 00000002 00908 00612 00624 00654 00661 00723 00761 00763 00777
VMCMHDR  00001 00000000 00899 00606 00661 00691 00699 00923
VMCMIDEN 00001 0000000A 00912 01084
VMCMLEN  00001 00000028 00923 00335 00691 00949 00976 01051 01081
VMCMMID  00004 00000004 00913 00732 00776
VMCMPRTY 00001 00000020 00906 00697 00699
VMCMRESP 00001 00000080 00904 00622 00721 00759
VMCMSENX 00001 00000004 00911 01085
VMCMSNKT 00001 00000007 00916 00621 00626
VMCMSRCT 00001 00000006 00915 00620 00627
VMCMSTAT 00001 00000000 00903 00622 00697 00699 00721 00759
VMCMUSER 00008 00000008 00917 00634 00730 00775
VMCPARM  00001 00000000 00865 00111 00192 00193 00195 00488 00500 00897
VMCPAUTH 00001 00000000 00874 00979 01075
VMCPAUTS 00001 00000080 00870 00414 00427
VMCPCANC 00001 00000006 00880 01078
VMCPFLG1 00001 00000000 00869 00414 00427
VMCPFUNC 00002 00000002 00873 00112 00175 00177 00230 00259 00263 00490 00493
VMCPLEN  00001 00000028 00897 00108 00192 00489
VMCPLENA 00004 00000014 00893 00164 00318 00386
VMCPLENB 00004 0000001C 00895 00170
VMCPMID  00004 00000004 00887 00229 00257 00494
VMCPPRTY 00001 00000040 00871 00978
```

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SYMBOL	LEN	VALUE	DEFN	REFERENCES
VMCPRECV	00001	00000005	00879	01079
VMCPRJCT	00001	0000000B	00885	01082
VMCPSENR	00001	00000003	00877	01080
VMCPSNKT	00001	00000007	00890	00132 00135 00424 00459
VMCPSRCT	00001	00000006	00889	00131 00136 00422 00429 00458
VMCPUAUT	00001	00000001	00875	00987 01077
VMCPUNST	00001	0000001F	00886	01076
VMCPUSE	00008	00000020	00896	00393 00496
VMCPUSER	00008	00000008	00891	00127 00128 00193 00195 00225 00416 00417 00460 00461 00495
VMCPVADA	00004	00000010	00892	00165 00334 00389 00453 00474
VMCPVADB	00004	00000018	00894	00171 00399 00401
VMUSER	00008	00000B28	00954	00130 00195 00228 00419 00463
XID	00008	00000B18	00950	00360 00363 00365
XTRPTAD	00004	00000BD4	00972	00396 00401 00799
XTRPTSA	00004	00000BD8	00973	00802 00804

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.29 10/25/81

```
=X'FFE4000000000000'
        00008 00000CB8 01058  00101
=CL8'*'  00008 00000CC0 01059  00128 00193 00226 00417 00461
=CL8'VM/SP'
        00008 00000CC8 01060  00363
=CL8'VM/370'
        00008 00000CD0 01061  00365
=CL8'EXTERNAL'
        00008 00000CD8 01062  00393
=CL8'UNAUTH'
        00008 00000CE0 01063  00496
=A(IEAVMCF)
        00004 00000CE8 01064  00023 00057 00098 00598
=F'1'    00004 00000CEC 01065  00105 00233 00236 00291 00296 00325 00330 00450 00507 00512 00528 00533 00560 00608 00684
                               00687 00740 00745 00811
=X'00040000'
        00004 00000CF0 01066  00196 00199 00574
=A(BAEXHVC)
        00004 00000CF4 01067  00197
=A(BAEXDONE)
        00004 00000CF8 01068  00200
=F'11'   00004 00000CFC 01069  00247
=F'12'   00004 00000D00 01070  00249
=F'4'    00004 00000D04 01071  00387
=A(RTRNCMS2)
        00004 00000D08 01072  00575
=X'3F000000'
        00004 00000D0C 01073  00715
=AL2(MAXFUNC)
        00002 00000D10 01074  00115 00615
=AL2(VMCPAUTH)
        00002 00000D12 01075  00120
=AL2(VMCPUNST)
        00002 00000D14 01076  00175
=AL2(VMCPUAUT)
        00002 00000D16 01077  00177
=AL2(VMCPCANC)
        00002 00000D18 01078  00259 00490
=AL2(VMCPRECV)
        00002 00000D1A 01079  00263
=AL2(VMCPSENR)
        00002 00000D1C 01080  00269
=AL2(VMCMLEN)
        00002 00000D1E 01081  00319
=AL2(VMCPRJCT)
        00002 00000D20 01082  00493
=X'4001' 00002 00000D22 01083  00601
=AL2(VMCMIDEN)
        00002 00000D24 01084  00624 00654 00661 00723 00761
=AL2(VMCMSENX)
        00002 00000D26 01085  00763
```

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```
NO STATEMENTS FLAGGED IN THIS ASSEMBLY
HIGHEST SEVERITY WAS    0
OPTIONS FOR THIS ASSEMBLY
  ALIGN, ALOGIC, BUFSIZE(STD), NODECK, ESD, FLAG(0), LINECOUNT(55), LIST, NOMCALL, YFLAG, WORKSIZE(2097152)
  NOMLOGIC, NUMBER, OBJECT, NORENT, RLD, STMT, NOLIBMAC, TERMINAL, NOTEST, XREF(SHORT)
  SYSPARM()
WORK FILE BUFFER SIZE/NUMBER = 7294/ 1
TOTAL RECORDS READ FROM SYSTEM INPUT       1142
TOTAL RECORDS READ FROM SYSTEM LIBRARY      982
TOTAL RECORDS PUNCHED                        61
TOTAL RECORDS PRINTED                      1494
```

Appendix E

ADDIR - LISTING OF SOURCE

```
********************************************************************************************************************************
**********************************          KANSAS STATE UNIVERSITY VM/SP CMS          **********************************
**********************************          KANSAS STATE UNIVERSITY VM/SP CMS          **********************************
********************************************************************************************************************************
** VM/370 VERSION 01 LEVEL 01 PLC 03 ****************** ADDIR    **** DMLP     ************************** 10/17/81 **** 11:52:18 **
** VM/370 VERSION 01 LEVEL 01 PLC 03 ****************** ADDIR    **** DMLP     ************************** 10/17/81 **** 11:52:18 **
```

```
KK         KK   SSSSSSSSS   UU         UU
KK       KK     SSSSSSSSSSS UU         UU
KK     KK       SS        SS UU         UU
KK   KK         SS           UU         UU
KK KK           SSS          UU         UU
KKKKKK           SSSSSSSSS   UU         UU
KKKKKK             SSSSSSSS  UU         UU
KK   KK                SSS  UU         UU
KK    KK               SS   UU         UU
KK     KK     SS       SS   UU         UU
KK      KK    SSSSSSSSSSS   UUUUUUUUUUU
KK       KK    SSSSSSSSS     UUUUUUUUU
```

```
          VV        VV    MM        MM
          VV        VV    MMM      MMM
          VV        VV    MMMM    MMMM
          VV        VV    MM MM  MM MM
    3333333333     777777777777MMMM  00000000
  333333333333     77777777777  MM  0000000000
33      VV33     77VV     77      00MM      00
         V33      VV     77M      00MM      00
          33     VV     77MM      00MM      00
        3333VV  VV     77 MM      00MM      00
        3333 VVVV      77 MM      00MM      00
           33 VV       77 MM      00MM      00
           33          77         00        00
33         33          77         00        00
333333333333           77           0000000000
 3333333333            77            00000000
```

```
 AAAAAAAAAA   DDDDDDDDD     DDDDDDDDD      IIIIIIIIII   RRRRRRRRRR
AAAAAAAAAAAA  DDDDDDDDDD    DDDDDDDDDD     IIIIIIIIII   RRRRRRRRRRRR
AA         AA DD       DD   DD       DD       II       RR        RR
AA         AA DD        DD  DD        DD      II       RR        RR
AA         AA DD        DD  DD        DD      II       RR        RR
AAAAAAAAAAAAA DD        DD  DD        DD      II       RRRRRRRRRRRR
AAAAAAAAAAAAA DD        DD  DD        DD      II       RRRRRRRRRRR
AA         AA DD        DD  DD        DD      II       RR    RR
AA         AA DD        DD  DD        DD      II       RR     RR
AA         AA DD       DD   DD       DD       II       RR      RR
AA         AA DDDDDDDDDD    DDDDDDDDDD     IIIIIIIIII   RR       RR
AA         AA DDDDDDDDD     DDDDDDDDD      IIIIIIIIII   RR        RR
```

```
DDDDDDDDD     MM        MM  LL            PPPPPPPPPPP
DDDDDDDDDD    MMM      MMM  LL            PPPPPPPPPPPP
DD       DD   MMMM    MMMM  LL            PP        PP
DD        DD  MM MM  MM MM  LL            PP        PP
DD        DD  MM  MMMM  MM  LL            PP        PP
DD        DD  MM   MM   MM  LL            PPPPPPPPPPPP
DD        DD  MM        MM  LL            PPPPPPPPPPP
DD        DD  MM        MM  LL            PP
DD        DD  MM        MM  LL            PP
DD       DD   MM        MM  LL            PP
DDDDDDDDDD    MM        MM  LLLLLLLLLLLL  PP
DDDDDDDDD     MM        MM  LLLLLLLLLLLL  PP
```

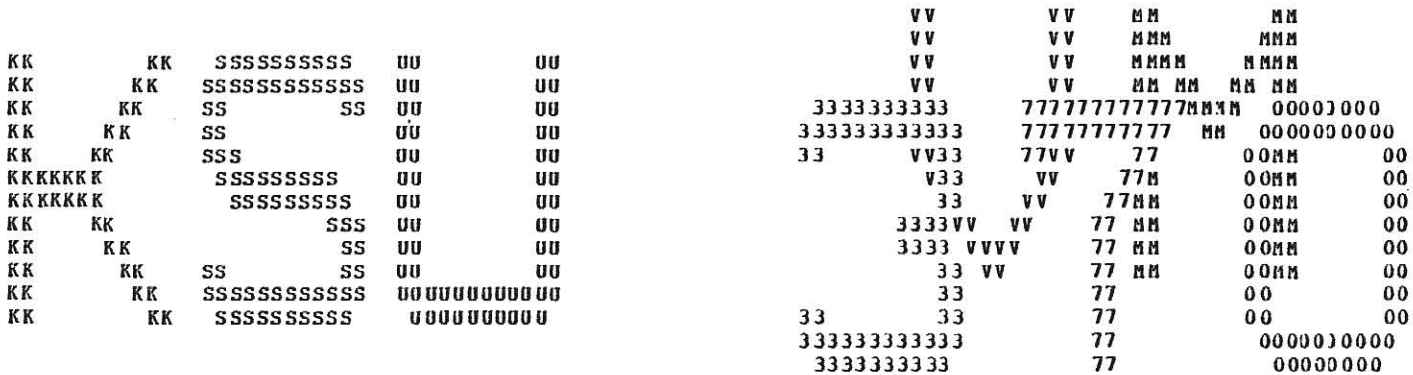
```
/*ADDIR:  ADD THE DIRECTOR RECORD TO XYU DB */                          00001000
/*SCHEMA_COMMENTS*/                                                     00002000
/*NO_ACTIVITY_LOG*/                                                     00003000
ADDIR:PROC OPTIONS(MAIN) REORDER;                                       00004000
DECLARE (CALENDAR SUBSCHEMA, XYUSCHEM SCHEMA, ADDIR PROGRAM)            00005000
  MODE (CIAM) DEBUG;                                                    00006000
INCLUDE IDMS(IDMS_ENTRY);                                               00007000
INCLUDE IDMS(ERROR_CODES);                                              00008000
INCLUDE IDMS(CIAMERR_ONCOND);                                           00009000
INCLUDE IDMS(CIAM_MAIN);                                                00010000
DECLARE (STORAGE,BINARY) BUILTIN;                                       00011000
%INCLUDE HEX;                                                           00012000
DISPLAY(HEX(CIAMPTR) ||' '|| HEX(STORAGE(CIAM_CB)));                    00013000
DCL AUDIT FILE STREAM OUTPUT PRINT;                                     00014000
DCL SYSIN FILE STREAM INPUT;                                            00015000
DCL SYSPRINT FILE STREAM OUTPUT;                                        00016000
ON ENDFILE(SYSIN) BEGIN;                                                00017000
                  PUT FILE(AUDIT) SKIP EDIT                             00018000
                  ('*** ERROR *** EOF OCCURED ON SYSIN',                00019000
                  ' NO DIRECTORS''S NAME WAS FOUND.',                   00020000
                  ' ABORTING RUN, RERUN WITH DIRECTOR''S ',             00021000
                  ' NAME CORRECTLY ENTERED.')                           00022000
                  (A,A,SKIP(1),A,A);                                    00023000
                  /*CLEAN UP THE DATABASE HANDLER*/                     00024000
                  ROLLBACK;                                             00025000
                  STOP;  /*SHUT THINGS DOWN.*/                          00026000
                END;                                                    00027000
                                                                        00028000
                                                                        00029000
/*BIND RUN-UNIT TO IDMS*/                                               00030000
                                                                        00031000
INCLUDE IDMS(SUBSCHEMA_BINDS);                                          00032000
IF ERROR_STATUS ¬= IDMS_OK THEN SIGNAL COND(IDMSERR);                   00033000
                                                                        00034000
/*HOUSEKEEPING*/                                                        00035000
READY AREA (MAIN) EXCLUSIVE UPDATE;                                     00036000
IF ERROR_STATUS ¬= IDMS_OK THEN SIGNAL COND(IDMSERR);                   00037000
                                                                        00038000
/*READ IN THE DIRECTORS'S NAME*/                                        00039000
GET LIST(DIRECTORS_NAME);                                               00040000
                                                                        00041000
/*CREATE THE DIRECTOR, LET IDMS FIGURE WHERE TO PLACE HIM*/             00042000
                                                                        00043000
DIRECT_DBKEY=-1; /*THIS IS HOW YOU TELL IDMS TO PLACE HIM SOMEWHERE*/   00044000
STORE RECORD(DIRECTOR);                                                 00045000
IF ERROR_STATUS ¬= IDMS_OK THEN SIGNAL COND(IDMSERR);                   00046000
                                                                        00047000
PUT FILE(AUDIT) PAGE EDIT('ADDIR','CREATION OF THE DIRECTOR',           00048000
  'TIME',TIME_TODAY,'DATE',DATE_TODAY,'PAGE  1',                        00049000
 'DIRECTOR''S NAME ENTERED INTO DATABASE AS:    ',DIRECTORS_NAME,       00050000
 'DIRECTOR''S DATABASE KEY RETURNED WAS: ',DBKEY)                       00051000
 (A,COL(10),A,COL(75),A,X(1),A,X(2),A,X(1),A,X(2),A,                    00052000
 SKIP(2),A,A,                                                           00053000
 SKIP(1),A,X(6),F(7));                                                  00054000
  FINISH;                                                               00055000
```

Lines under-lined are lines modified to run under CIAM Protocol.

```
IF ERROR_STATUS ¬= IDMS_OK THEN SIGNAL COND(IDMSERR);                  00056000
END ADDIR;                                                             00057000
```

Appendix F

ADDIR - LOAD MAP


KK KK SSSSSSSSS UU UU
KK KK SSSSSSSSSSS UU UU
KK KK SS SS UU UU
KK KK SS UU UU
KK KK SSS UU UU
KKKKKKK SSSSSSSSS UU UU
KKKKKKK SSSSSSSSS UU UU
KK KK SSS UU UU
KK KK SS UU UU
KK KK SS SS UU UU
KK KK SSSSSSSSSSS UUUUUUUUUUU
KK KK SSSSSSSSS UUUUUUUUU
VV VV MM MM
VV VV MMM MMM
VV VV MMMM MMMM
VV VV MM MM MM MM
3333333333 777777777777MMMM 00001000
333333333333 77777777777 MM 0000000000
33 VV33 77VV 77 00MM 00
V33 VV 77M 00MM 00
33 VV 77MM 00MM 00
3333VV VV 77 MM 00MM 00
3333 VVVV 77 MM 00MM 00
33 VV 77 MM 00MM 00
33 77 00 00
33 33 77 00 00
333333333333 77 0000010000
3333333333 77 00000000
AAAAAAAAAA DDDDDDDDD DDDDDDDDD IIIIIIIIII RRRRRRRRRR
AAAAAAAAAAAA DDDDDDDDDD DDDDDDDDDD IIIIIIIIII RRRRRRRRRRR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AAAAAAAAAAAA DD DD DD DD II RRRRRRRRRRR
AAAAAAAAAAAA DD DD DD DD II RRRRRRRRRR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AA AA DD DD DD DD II RR RR
AA AA DDDDDDDDD DDDDDDDDD IIIIIIIIII RR RR
AA AA DDDDDDDDD DDDDDDDDD IIIIIIIIII RR RR
LL 000000000000 AAAAAAAAAA DDDDDDDDD MM MM AAAAAAAAAA PPPPPPPPPP
LL 000000000000 AAAAAAAAAAAA DDDDDDDDDD MMM MMM AAAAAAAAAAAA PPPPPPPPPPP
LL 00 00 AA AA DD DD MMMM MMMM AA AA PP PP
LL 00 00 AA AA DD DD MM MM MM MM AA AA PP PP
LL 00 00 AA AA DD DD MM MMMM MM AA AA PP PP
LL 00 00 AAAAAAAAAAAA DD DD MM MM MM AAAAAAAAAAAA PPPPPPPPPP
LL 00 00 AAAAAAAAAAAA DD DD MM MM AAAAAAAAAAAA PPPPPPPPPP
LL 00 00 AA AA DD DD MM MM AA AA PP
LL 00 00 AA AA DD DD MM MM AA AA PP
LL 00 00 AA AA DD DD MM MM AA AA PP
LLLLLLLLLLL 000000000000 AA AA DDDDDDDDD MM MM AA AA PP
LLLLLLLLLLL 000000000000 AA AA DDDDDDDDD MM MM AA AA PP

```
INVALID CARD - *
INVALID CARD - *          OSLIB1    MACLIB    Z2 CMS29D 10/17/81  10:00
INVALID CARD - *          DMSSP     MACLIB    S2 VMSP90 04/21/81  00:30
INVALID CARD - *          CMSLIB    MACLIB    S2 VMSP90 04/21/81  01:23
INVALID CARD - *          OSMACRO   MACLIB    S2 VMSP90 12/09/78  05:02
INVALID CARD - *          CIAM      MACLIB    D1 6N9192 90/17/81  10:05
INVALID CARD - *          CIAMUSER  ASSEMBLE  D1 6N9192 90/21/81  16:06
CIAMUSER SD 020000
CIAMDML     020000
CIAMTERM    020244
CIAMTOUT    0203E8
CIAM$DA     0204F8
CIAM$DAE    020650
CIAMUEND    020F1E
INVALID CARD - UPDT0001 -- NON-'4001'X EXTERNAL INTERUPT HANDLING MODIFICATION.
INVALID CARD - *          IEAVMCF   UPDT0001  D1 6N9192 10/09/81  11:31
INVALID CARD - *          OSLIB1    MACLIB    Z2 CMS29D 10/17/81  10:00
INVALID CARD - *          DMSSP     MACLIB    S2 VMSP90 04/21/81  00:30
INVALID CARD - *          CMSLIB    MACLIB    S2 VMSP90 04/21/81  01:23
INVALID CARD - *          OSMACRO   MACLIB    S2 VMSP90 12/09/78  05:02
INVALID CARD - *          CIAM      MACLIB    D1 6N9192 90/17/81  10:05
INVALID CARD - *          IEAVMCF   ASSEMBLE  D1 6N9192 86/19/81  09:25
IEAVMCF  SD 020F30
VMCFINIT    020F30
VMCFTERM    020F8A
CONTROL CARD - ENTRY DMSIBM
PLISTART SD 025F30
**ADDIR1 SD 025F80
**ADDIR2 SD 026BA8
PLICALLA    025F36
PLICALLB    025F3A
PLIMAIN  SD 027088
IELCGOA  SD 027090
IELCGOB  SD 027108
IELCGOC  SD 027178
ADDIR       025F88
IDMSERR  SD 0271F8
AUDIT    SD 027200
SYSIN    SD 027220
SYSPINT  SD 027240
DMSIBM   SD 027260
IBMBKSTW    027418
IBMBKSTX    027418
IBMBKSTY    027418
IBMBKSTZ    027418
IBMBKCPA    02741A
IBMBKCPB    02741A
IBMBKCPC    02741A
IBMBPFRA    02741C
IBMBPFRB    02741C
IBMBPIR1 SD 0279F0
IBMBPIRA    027A12
IBMBPIRB    027A14
IBMBPIRC    027A16
HEX      SD 027D90
```

```
HEX31          027D90
HEXPTR         027DC4
HEX15          027DF8
IBMBCP01 SD    027F00
IBMBCPBX       027F18
IBMBCPBF       027F18
IBMBCPBD       027F00
IBMBCPBP       027F08
IBMBCPBE       027F10
IBMBSIO1 SD    028108
IBMBSIOA       028108
IBMBSIOB       02810A
IBMBSIOC       02810C
IBMBSIOD       02810E
IBMBSIOE       028110
IBMBSIOT       0282E6
IBMBCAC1 SD    028388
IBMBCACA       028388
IBMBCCB1 SD    028670
IBMBCCBA       028670
IBMBCCS1 SD    028828
IBMBCCSA       028828
IBMBCH01 SD    0289E8
IBMBCHXF       028A10
IBMBCHXD       028A08
IBMBCHXP       0289F0
IBMBCHXE       0289E8
IBMBCHFD       028A08
IBMBCHFP       0289F0
IBMBCHFE       0289E8
IBMBCHFY       0289F8
IBMBCHXY       0289F8
IBMBCHFH       028A00
IBMBCHXH       028A00
IBMBCT01 SD    028BC8
IBMBCTHD       028BC8
IBMBCTHX       028BD0
IBMBCTHF       028BD8
IBMBCTHP       028BE0
IBMBCTHE       028BE8
IBMBCU01 SD    028E68
IBMBCUIF       028E88
IBMBCUIX       028E68
IBMBCUID       028E70
IBMBCUIP       028E78
IBMBCUIE       028E80
IBMBCV01 SD    029170
IBMBCVZY       029170
IBMBCVDY       029170
IBMBCW01 SD    029440
IBMBCWDH       029440
IBMBCWZH       029440
IBMBJDS1 SD    029630
IBMBJDSA       029630
IBMBJDSB       02987C
```

```
IBMBOCL1 SD 029918
IBMBOCLA    029918
IBMBOCLB    02991A
IBMBOCLC    02991C
IBMBOCLD    02991E
IBMBSEO1 SD 029AC8
IBMBSEOA    029AC8
IBMBSII1 SD 029BC0
IBMBSIIA    029BC0
IBMBSIIB    029BC2
IBMBSIIC    029BC4
IBMBSIID    029BC6
IBMBSIIT    029BC8
IBMBSLI1 SD 029DE8
IBMBSLIA    029DE8
IBMBSLIB    029DEA
IBMBSPL1 SD 02A700
IBMBSPLA    02A700
IBMBSPLB    02A702
IBMBSPLC    02A704
IBMBSXC1 SD 02A9E0
IBMBSXCA    02A9E0
IBMBSXCB    02A9E2
IBMBSXCC    02A9E4
IBMBSXCD    02A9E6
IBMBCK01 SD 02AC08
IBMBCKDD    02AC10
IBMBCKDP    02AC08
IBMBCKZD    02AC10
IBMBCKZP    02AC08
IBMBERR1 SD 02AD90
IBMBERRA    02AD90
IBMBERRB    02ADDE
IBMBERRC    02B3CE
IBMBEER1 SD 02B480
IBMBEERA    02B480
IBMBSCV1 SD 02B488
IBMBSCVA    02B488
IBMBCGT1 SD 02B6D8
IBMBCGTA    02B6D8
IBMBEEF1 SD 02B760
IBMBEEFA    02B760

COMMON:
NAME     VALUE  LENGTH

CIAMPTR  02B8C0 000004

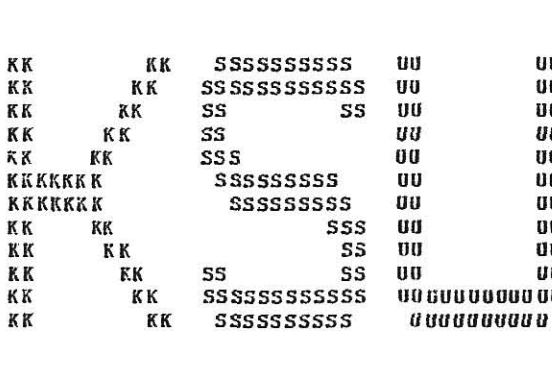
PSEUDO-REGISTERS
NAME     VALUE LENGTH

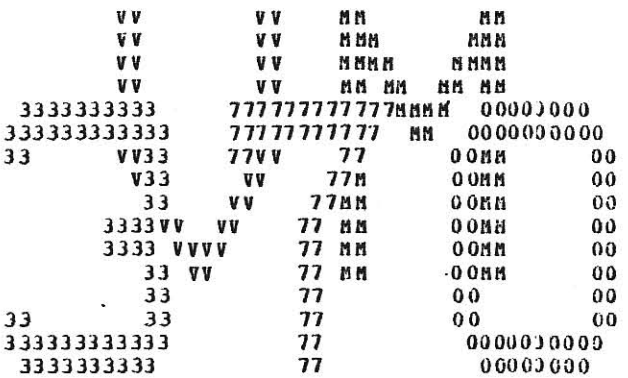
AUDIT      000   0004
SYSIN      004   0004

PR CUMULATIVE LENGTH -  0008
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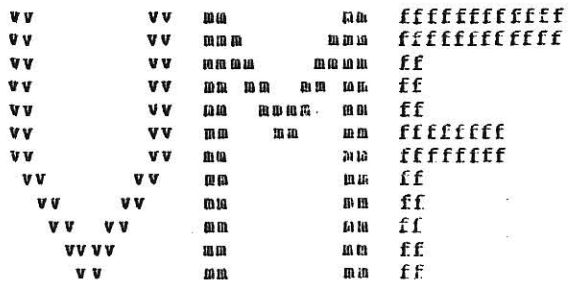
Appendix G

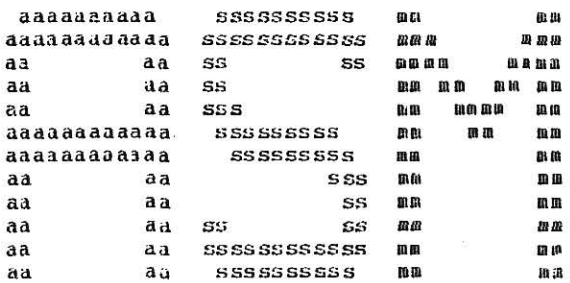
CIAMDBMS - DATABASE INTERFACE











```
TEXT MACS USLIB1 DMSSP CMSLIB OSMACRO CIAM
TEXT AUXCIAM



*
*         USLIB1    MACLIB    Z2 CMS29D 10/17/81  10:00
*         DMSSP     MACLIB    S2 VMSP90 04/21/81  00:30
*         CMSLIB    MACLIB    S2 VMSP90 04/21/81  01:23
*         OSMACRO   MACLIB    S2 VMSP90 12/09/78  05:02
*         CIAM      MACLIB    D1 6N9192 90/17/81  10:05
*         CIAMDBMS  ASSEMBLE  D1 6N9192 90/17/81  10:18
```

ASM 0201 20.35 10/25/81

SYMBOL	TYPE	ID	ADDR	LENGTH	LDID
CIAMDBMS	SD	0001	020000	00299E	
CDBSINIT	LD		020000		0001
VMCFINIT	ER	0002			
CDBSPOST	LD		02011C		0001
CDBSTERM	LD		02056E		0001
VMCFTERM	ER	0003			
CDBSTOUT	LD		020740		0001
CDBS$DA	LD		020848		0001
CDBS$DAE	LD		021700		0001
IDMS	ER	0004			
IEAVMCF	ER	0005			
CDBSDEND	LD		02297E		0001

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81
020000                              2 CIAMDBMS START X'20000'                                          00003000

                                    4 CDBSINIT PROLOGUE SA=INITSA,AD=CIAMDBMS,OPT=ENTRY,BR=(R10,R11,R12)  00005000
                                    5+         ENTRY CDBSINIT            NOTE PROLOGUE ENTRY OPTION     00034000

020000                              7+CDBSINIT DS    0H                  DEFINE LABEL,MAKE SURE ALIGNED 00051000
                         20000      8+         USING *,15               FOR TEMPORARY ADDRESSIBILITY   00052000
020000 47F0 F01C         0001C      9+         B    28(,15)             BRANCH AROUND ...              00018000
020004 09C3C4C2E2C9D5C9             10+        DC   AL1(9),CL9'CDBSINIT'       ID                  00020000
02000E F1F0F1F2F5F1F8F1             11+        DC   CL14'10/25/81 20.35'       DATE & TIME STAMP   00021000
02001C 90EC D00C         0000C      12+        STM  14,12,12(13)        SAVE STANDARD REGISTER SET     00071000
020020 50D0 F6FC         206FC      13+        ST   13,INITSA+4         SAVE OLD POINTER IN NEW AREA   00119000 704
020024 18AD                         14+        LR   R10,13              MOVE OLD POINTER OVER          00124000
020026 41D0 F6F8         206F8      15+        LA   13,INITSA           ADDRESS OF NEW SAVE AREA       00125000 704
02002A 50DA 0008         00008      16+        ST   13,8(R10)           SAVE NEW POINTER IN OLD AREA   00126000
02002E 0700                         17+        CNOP 0,4                                                00019000
020030 47F0 F038         20038      18+        B    *+8                 SKIP AROUND ADDRESS CONSTANT   00020000
020034 00020000                     19+        DC   A(CIAMDBMS)         ADDRESS CONSTANT FOR AD=PARAMETER 00021000 2
020038 58A0 F034         20034      20+        L    R10,*-4             LOAD ADCON INTO RIGHT REGISTER 00022000
                                    21+        DROP 15                  CLEAN UP USING SITUATION       00029000
                         20000      22+        USING CIAMDBMS,R10,R11,R12                              00030000 2
02003C 41B0 0FFF         00FFF      23+        LA   R11,4095             LOAD IN ADDRESS               00135000
020040 41BB A001         00001      24+        LA   R11,1(R11,R10)                 SET USING VALUES     00136000
020044 41C0 0FFF         00FFF      25+        LA   R12,4095             LOAD IN ADDRESS               00135000
020048 41CC B001         00001      26+        LA   R12,1(R12,R11)                 SET USING VALUES     00136000

02004C                              29 REINIT  DS   0H                                                 00007000
02004C 9200 B6C0         216C0      30         MVI  CDBSFLG1,X'00'      MAKE SURE FLAGS ARE CLEARED.   00008000 946
020050 8000 B501         21501      31         SSM  ENABLE              MAKE SURE INTERUPTS ARE ENABLED. 00009000 792
020054 45E0 B700         21700      32         BAL  R14,MSG001          -> ANNOUNCE STARTUP.           00010000 967

                                   34 * INITILIZE ABEND ADDRESS, AFTER SAVING FM ABEND ADDRESS.        00012000

                         00000     36         USING NUCON,R0           ADDRESSABILITY TO LOW STORAGE. 00014000 2058
020058 5860 0E0C         00E0C      37         L    R6,FMABNADD         GET FM ABEND ADDRESS.          00015000 2683
02005C 5060 B4F8         214F8      38         ST   R6,CDBS$FM          SAVE FM ABEND ADDRESS.         00016000 789
020060 4160 A56E         2056E      39         LA   R6,CDBSTERM         GET CDBSTERM ADDRESS.          00017000 580
                                    40         DMSKEY NUCLEUS           ALLOW WRITE TO NUCLEUS AREA.   00018000
020064 0ACB                         41+        SVC  203                                                00016000
020066 0108                         42+        DC   H'264'                  'DMSKEY' CODE              00017000
020068 9610 05E5         005E5      43         OI   KSUFLAGS,FMRUN      MAKE DMSABN THINK THIS IS FM.  00019000 2430 2434
02006C 5060 0E0C         00E0C      44         ST   R6,FMABNADD          STORE CDBSTERM ADDRESS.        00020000 2683
                                    45         DROP R0                                                 00021000
                                    46         DMSKEY RESET             DISALLOW WRITE TO NUCLEUS AREA. 00022000
020070 0ACB                         47+        SVC  203                                                00016000
020072 0208                         48+        DC   H'520'                  'DMSKEY' CODE              00017000

020074 4140 A848         20848      50         LA   R4,PORTBASE          GET BASE OF PORTLIST           00024000 773
020078 4120 000C         0000C      51         LA   R2,PORTSECL         LENGTH OF ONE PORT             00025000 1962
02007C 4130 B430         21430      52         LA   R3,PA$PORT-PORTSECL PORT 254                       00026000 775 1962
020080 1F66                         53         SLR  R6,R6               SET R6 TO ZERO                 00027000
                         00000      54         USING CDBSPORT,R4        ADDRESS PORTS IN ASSEMBLER     00028000 1958
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

020082 D703 4000 4000 00000 00000    56 LOOP1    XC    PORT$ECB,PORT$ECB  MAKE SURE ECB IS CLEAR                00030000 1959 1959
020088 4150 400C      0000C          57          LA    R5,PORTSECL(,R4)   POINT TO NEXT PORT                   00031000 1962
02008C 5050 4004      00004          58          ST    R5,PORT$NR         CHAIN TOGETHER                       00032000 1960
020090 5060 4008      00008          59          ST    R6,PORT$CB@        STORE PORT NUMBER                    00033000 1961
020094 4160 6001      00001          60          LA    R6,1(,R6)          INCREMENT PORT NUMBER                00034000
020098 8742 A082      20082          61          BXLE  R4,R2,LOOP1        -> UNTIL DONE.                       00035000 56

02009C D203 4004 B4FC 00004 214FC    63          MVC   PORT$NR,NULLPTR    SHOW END OF LIST.                    00037000 1960 790
0200A2 D703 B43C B43C 2143C 2143C    64          XC    PA$ECB,PA$ECB      CLEAR PORT AUTHORITY ECB             00038000 776 776
0200A8 D203 B44C B4FC 2144C 214FC    65          MVC   PA$FIRST,NULLPTR   SHOW NO EXEC. DML'S                  00039000 779 790
0200AE D203 B450 B4FC 21450 214FC    66          MVC   PA$LAST,NULLPTR    ...                                  00040000 780 790
0200B4 4150 B454      21454          67          LA    R5,PA$WAREA        GET ADDRESS OF PORT AUTH. WORK AREA  00041000 781
0200B8 5050 4008      00008          68          ST    R5,PORT$CB@        STORE IT                             00042000 1961
0200BC 5B40 C988      22988          69          S     R4,=AL4(PORTSECL)  GET BACK TO PORT 254                00043000 1962
0200C0 D203 4004 B4FC 00004 214FC    70          MVC   PORT$NR,NULLPTR    SHOW END OF LIST                     00044000 1960 790
                                     71          DROP  R4                                                      00045000

                                     73 * INITIALIZE OS/VMCF                                                    00047000

0200C6 B206 B6C8      216C8          75          SCKC  FOREVER            WAIT ALMOST FOREVER.                 00049000 956
0200CA B600 B6F0      216F0          76          STCTL C0,C0,SAVECR0      GET CONTROL REG. ZERO                00050000 960
0200CE D207 B6F8 B6F0 216F8 216F0    77          MVC   RESTCR0,SAVECR0    SAVE VALUE OF CR0.                   00051000 961 960
0200D4 9608 B6F2      216F2          78          OI    SAVECR0+2,X'08'    ALLOW CLOCK INTERUPTS.               00052000 960
0200D8 9601 B6F3      216F3          79          OI    SAVECR0+3,X'01'    ALLOW VMCF INTERUPTS.                00053000 960
0200DC B700 B6F0      216F0          80          LCTL  C0,C0,SAVECR0      UPDATE CONTROL REG. ZERO             00054000 960
                                     81          CALL  VMCFINIT           ENTRY IN OS/VMCF TO INITILIZE VMCF.  00055000
0200E0                               82+         CNOP  0,4                                                     00300000
0200E0 47F0 A0E8      200E8          83+         B     *+8                    BRANCH AROUND VCON               00320000
0200E4 00000000                      84+IHB0009B DC    V(VMCFINIT)            ENTRY POINT ADDRESS              00340000 -
0200E8 58F0 A0E4      200E4          85+         L     15,IHB0009B            LOAD 15 WITH ENTRY ADR           00440000 84
0200EC 05EF                          86+         BALR  14,15                  BRANCH TO ENTRY POINT            00460000

                                     88 *        GENERAL AUTH PORT AUTHORITY                                   00057000

0200EE 4110 B530      21530          90          LA    R1,AUTHPARM        GET AUTH PARM BLOCK                  00059000 799
                            00000    91          USING VMCPARM,R1         ADDRESS IT.                          00060000 1965
0200F2 4120 B43C      2143C          92          LA    R2,PA$PORT         GET PORT AUTH PARM BLOCK             00061000 775
                            00000    93          USING CDBSPORT,R2        ADDRESS IT.                          00062000 1958
0200F6 5830 2008      00008          94          L     R3,PORT$CB@        GET CIAM_CB FOR PORT AUTH.           00063000 1961
                                     95          DROP  R2                                                      00064000
                            00000    96          USING CIAMCB,R3          ADDRESS IT.                          00065000 1876
0200FA D200 307E 1007 0007E 00007    97          MVC   CCBUPORT,VMCPSNKP  COPY SINK PORT                       00066000 1904 1990
020100 D200 3087 1006 00087 00006    98          MVC   CCBDPORT,VMCPSRCT  COPY SOURCE PORT                     00067000 1906 1989
020106 D207 3076 C980 00076 22980    99          MVC   CCBUVMID,=CL8' '    BLANK OUT USERID FIELD               00068000 1903
                                    100          DROP  R1,R3                                                   00069000
02010C 0AD3                         101          SVC   211                ISSUE VMCF SVC.                      00070000
02010E 12FF                         102          LTR   R15,R15            TEST RETURN CODE FROM SVC            00071000
020110 4770 B736      21736         103          BNZ   ERR002             -> AUTH ERR, GO COMPLAIN.            00072000 979


020114 9680 B6C0      216C0         105          OI    CDBSFLG1,SYSINIT   SHOW SYSTEM INITIALIZATION.           00074000 946 947
020118 47F0 B788      21788         106          B     MSG003             INFORM UPON COMPLETE INITILAZATION,  00075000 994
                                    107 *                                MSG003 RETURNS TO DMLEXEC            00076000
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                   109 CDBSPOST PROLOGUE SA=POSTSA,AD=CIAMDBMS,OPT=ENTRY,BR=(R10,R11,R12)      00079000
                                   110+         ENTRY CDBSPOST             NOTE PROLOGUE ENTRY OPTION          00034000

02011C                             112+CDBSPOST DS    0H                   DEFINE LABEL,MAKE SURE ALIGNED      00051000
                          2011C    113+         USING *,15                FOR TEMPORARY ADDRESSIBILITY        00052000
02011C 47F0 F01C       0001C      114+         B     28(,15)             BRANCH AROUND ...                   00018000
020120 09C3C4C2E2D7D6E2           115+         DC    AL1(9),CL9'CDBSPOST'       ID                           00020000
02012A F1F061F2F561F8F1           116+         DC    CL14'10/25/81 20.35'       DATE & TIME STAMP            00021000
020138 90EC D00C       0000C      117+         STM   14,12,12(13)        SAVE STANDARD REGISTER SET          00071000
02013C 50D0 F0C4       201E0      118+         ST    13,POSTSA+4         SAVE OLD POINTER IN NEW AREA        00119000 205
020140 18AD                       119+         LR    R10,13              MOVE OLD POINTER OVER               00124000
020142 41D0 F0C0       201DC      120+         LA    13,POSTSA           ADDRESS OF NEW SAVE AREA            00125000 205
020146 50DA 0008       00008      121+         ST    13,8(R10)           SAVE NEW POINTER IN OLD AREA        00126000
02014A 0700                       122+         CNOP  0,4                                                     00019000
02014C 47F0 F038       20154      123+         B     *+8                 SKIP AROUND ADDRESS CONSTANT        00020000
020150 00020000                   124+         DC    A(CIAMDBMS)         ADDRESS CONSTANT FOR AD=PARAMETER   00021000 2
020154 58A0 F034       20150      125+         L     R10,*-4             LOAD ADCON INTO RIGHT REGISTER      00022000
                                  126+         DROP  15                  CLEAN UP USING SITUATION            00029000
                          20000    127+         USING CIAMDBMS,R10,R11,R12                                    00030000 2
020158 41B0 0FFF       00FFF      128+         LA    R11,4095             LOAD IN ADDRESS                    00135000
02015C 41BB A001       00001      129+         LA    R11,1(R11,R10)                 SET USING VALUES          00136000
020160 41C0 0FFF       00FFF      130+         LA    R12,4095             LOAD IN ADDRESS                    00135000
020164 41CC B001       00001      131+         LA    R12,1(R12,R11)                 SET USING VALUES          00136000


                                   134 *.                                                                      00081000
                                   135 *  Upon entry,                                                         00082000
                                   136 *                                                                       00083000
                                   137 *        R1    address of current ECB just posted.                    00084000
                                   138 *        R14   Return address.                                        00085000
                                   139 *        R15   Entry address. (Entry via BR)                          00086000
                                   140 *                                                                       00087000
                                   141 *  Interupts disabled.                                                  00088000
                                   142 *                                                                       00089000
                                   143 *  Called by CDBSVMCF at POST.                                          00090000
                                   144 *                                                                       00091000
                                   145 *.                                                                      00092000


020168 1851                        147          LR    R5,R1               COPY ECB ADDR TO SAFE REG.          00094000
                          00000    148          USING CDBSPORT,R5         ADDRESS PORT.                       00095000 1958
02016A 5860 5008       00008      149          L     R6,PORT$CB@         GET CONTROL BLOCK INFO.             00096000 1961
                                  150          DROP  R5                                                      00097000
02016E 45E0 B7BE       217BE      151          BAL   R14,MSG004          -> WRITE INFORMATIVE ENTRY MSG      00098000 1008

020172 D503 B44C B4FC 2144C 214FC 153          CLC   PA$FIRST,NULLPTR    ANY PORTS ON WAIT-TO-RUN LIST??     00100000 779 790
020178 4780 A1B4       201B4      154          BE    FIRST               -> NO, GO HANDLE SPEC. CASE.        00101000 186

02017C 4160 B43C       2143C      156          LA    R6,PA$ECB           PORT AUTHORITY ECB ADDR             00103000 776
020180 1956                       157          CR    R5,R6               IS CURRENT REQUEST FOR PORT AUTH.??  00104000
020182 4780 A1A0       201A0      158          BE    ADDFIRST            -> YES, ADD TO FRONT OF QUEUE       00105000 177

                                   160 *** ADD PORT (R5) TO TAIL OF RUNABLE PORT LIST.                         00107000
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

020186                              162 ADDLAST  DS    0H                                                    00109000 ?
020186 BF3F B450       21450        163          ICM   R3,B'1111',PA$LAST GET LAST RUNABLE PORT ADDR.        00110000 780
02018A 4740 B8E0       218E0        164          BM    ERR005             -> BEST A GOOD PTR.                00111000 1035
                                00000 165          USING CDBSPORT,R3        ADDRESS PORT IN ASSEMBLER        00112000 1958
02018E 5050 3004       00004        166          ST    R5,PORT$NR         MAKE OLD LAST PORT TO POINT TO     00113000 1960
                                    167 *                                  NEW LAST RUNABLE.                  00114000
                                    168          DROP  R3                                                    00115000
020192 5050 B450       21450        169          ST    R5,PA$LAST         UPDATE LAST PORT ADDR.             00116000 780
                                00000 170          USING CDBSPORT,R5        ADDRESS NEW PORT.                00117000 1958
020196 D203 5004 B4FC 00004 214FC   171          MVC   PORT$NR,NULLPTR    INDICATE END OF CHAIN.             00118000 1960 790
                                    172          DROP  R5                                                    00119000
02019C 47F0 A1CA       201CA        173          B     POST$EX            -> AND WE ARE DONE.                00120000 199

                                    175 *** ADD PORT (R5) TO HEAD OF RUNABLE PORT LIST.                      00122000

0201A0                              177 ADDFIRST DS    0H                                                    00124000
0201A0 BF3F B44C       2144C        178          ICM   R3,B'1111',PA$FIRST GET FIRST RUNNABLE PORT ADDR.    00125000 779
0201A4 4740 B8AA       218AA        179          BM    ERR006             -> BEST BE A GOOD ADDRESS.         00126000 1050
                                00000 180          USING CDBSPORT,R3        ADDRESS PORT                     00127000 1958
0201A8 5030 3004       00004        181          ST    R3,PORT$NR         CHAIN INTO LIST                    00128000 1960
                                    182          DROP  R3                                                    00129000
0201AC 5050 B44C       2144C        183          ST    R5,PA$FIRST        CHAIN IN ALSO                      00130000 779
0201B0 47F0 A1CA       201CA        184          B     POST$EX            -> AND WE ARE DONE                 00131000 199


0201B4                              186 FIRST    DS    0H                 HERE TO ADD THE FIRST RUNABLE PORT. 00133000
                                00000 187          USING CDBSPORT,R5        ADDRESS PORT IN ASSEMBLER        00134000 1958
0201B4 D203 5004 B4FC 00004 214FC   188          MVC   PORT$NR,NULLPTR    SHOW END OF CHAIN.                 00135000 1960 790
                                    189          DROP  R5                                                    00136000
0201BA 5050 B44C       2144C        190          ST    R5,PA$FIRST        SHOW FIRST RUNABLE PORT ADDR.      00137000 779
0201BE 5050 B450       21450        191          ST    R5,PA$LAST         SHOW LAST RUNABLE PORT ADDR.       00138000 780
                                    192          POST  DMLEXECB,0         WAKE UP DML EXECUTOR.              00139000
0201C2 4110 B502       21502        193+         LA    1,DMLEXECB                   LOAD PARAMETER REG 1    00100000 794
0201C6 1B00                         194+         SR    0,0                          SET CODE VALUE OF 0     00380000
0201C8 0A02                         195+         SVC   2                            ISSUE POST SVC          00340000

                                    197 POST$EX  EPILOGUE SA=POSTSA                                          00141000

0201CA                              199+POST$EX  DS    0H                 DEFINE LABEL                       00023000
0201CA 58DD 0004       00004        200+         L     13,4(13)           RESTORE PREVIOUS SAVE AREA POINT   00054000
0201CE 58ED 000C       0000C        201+         L     14,12(13)          RELOAD REG 14                      00045000
0201D2 980C D014       00014        202+         LM    0,12,20(13)        RELOAD REST OF REGS                00048000
0201D6 92FF D00C       0000C        203+         MVI   12(13),X'FF'       SHOW WE HAVE RETURNED              00069000
0201DA 07FE                         204+         BR    14                 RETURN NORMALLY TO CALLER          00073000
0201DC 0000000000000000             205+POSTSA   DC    18F'0'             SAVE AREA,NAMED BY MACRO           00080000
```

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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

020224                             208 DMLEXEC  DS    0H                  DML EXECUTOR                        00144000

020224 8000 B500       21500       210          SSM   DISABLE             DISALLOW INTERUPTS                  00146000 791
020228 B206 B6C8       216C8       211          SCKC  FOREVER            DON'T TIME OUT EITHER.              00147000 956
02022C BF2F B44C       2144C       212          ICM   R2,B'1111',PA$FIRST ANY WORK TO DO??                    00148000 779
020230 4740 A376       20376       213          BM    NOWORK              -> NO, GOTO WAIT STATE.             00149000 363
                                00000 214          USING CDBSPORT,R2         WORK TO DO, ADDRESS PORT.       00150000 1958
020234 D203 B44C 2004  2144C 00004 215          MVC   PA$FIRST,PORT$NR    POINT TO NEXT RUNABLE PORT (OR NULL) 00151000 779 1960
02023A D503 B44C B4FC  2144C 214FC 216          CLC   PA$FIRST,NULLPTR    DID THAT USE ALL RUN-ABLE PORTS??   00152000 779 790
020240 4770 A24A       2024A       217          BNE   **+10               -> NO, SKIP AROUND.                 00153000
020244 D203 B450 B4FC  21450 214FC 218          MVC   PA$LAST,NULLPTR     SHOW END OF LIST.                   00154000 780 790
02024A 8000 B501       21501       219          SSM   ENABLE              ALLOW INTERUPTS NOW.                00155000 792

02024E 5830 2008       00008       221          L     R3,PORT$CB@         GET CONTROL BLOCK, THIS PORT.       00157000 1961
                                00000 222          USING CIAMCB,R3           ADDRESS IT.                     00158000 1876


                                     224 *.                                                                   00160000
                                     225 *                                                                    00161000
                                     226 *  (1)   UNSTACK interupt for this port.                            00162000
                                     227 *          REJECT interupt if protocol not SEND/RECV.                00163000
                                     228 *  If PORT < 255 then                                                00164000
                                     229 *    do;                                                             00165000
                                     230 *    (2)  RECEIVE the dml request message.                           00166000
                                     231 *    (3)  Map ARGLIST converting offsets to addresses.               00167000
                                     232 *    (4)  Invoke IDMS.                                               00168000
                                     233 *    (5)  REPLY the resultant dml service to the user.               00169000
                                     234 *    end;                                                            00170000
                                     235 *   else /*PORT = 255, ie the PORT Authority*/                       00171000
                                     236 *    call PORTAUTH to service request.                               00172000
                                     237 *                                                                    00173000
                                     238 *.                                                                   00174000


                                     240 *** (1)                                                              00176000

020252                               242 UNSTACK  DS    0H                                                    00178000
020252 4110 B5D8       215D8       243          LA    R1,UNSTKCB          PREPARE FOR UNSTACK REQUEST.        00179000 860
                                00000 244          USING VMCPARM,R1          ADDRESS UNSTACK CONTROL BLOCK.  00180000 1965
020256 D200 1006 3087  00006 00087 245          MVC   VMCPSRCT,CCBDPORT   COPY REQ'D INFO.                    00181000 1989 1906
02025C D200 1007 307E  00007 0007E 246          MVC   VMCPSNKT,CCBUPORT    ...                             00182000 1990 1904
020262 D207 1008 3076  00008 00076 247          MVC   VMCPUSER,CCBUVMID    ...                             00183000 1991 1903
                                   248          DROP  R1                                                      00184000
020268 0AD3                        249          SVC   211                 ISSUE VMCF SVC.                     00185000
02026A 12FF                        250          LTR   R15,R15             TEST RC FROM SVC.                   00186000
02026C 4770 B8F4       218F4       251          BNZ   ERR007              -> BAD RC, COMPLAIN,                00187000 1065
                                   252 *                                     ERR007 RETURNS TO DMLEXEC.        00188000

020270 4140 B506       21506       254          LA    R4,CDBSVMCM         GET INTERUPT INFO.                  00190000 796
                                00000 255          USING VMCMHDR,R4          ADDRESS IT.                     00191000 2000
020274 D501 4002 C994  00002 22994 256          CLC   VMCMFUNC,=AL2(VMCMSENR)  WAS IT SEND/RECV??             00192000 2009 2011
02027A 4770 A3B0       203B0       257          BNE   REJECT              -> NO, REJECT IT,                   00193000 380
                                   258 *                                     THEN, GOTO DMLEXEC.               00194000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

02027E 95FF 4007       00007         260          CLI   VMCMSNKT,255      IS THIS FOR THE PORT AUTHORITY??     00196000 2017
020282 4780 A3D6       203D6         261          BE    PORTAUTH          -> YES, GO SERVE.                    00197000 397

020286 9500 2000       00000         263          CLI   PORT$ECB,X'00'    DID UNSTACK CLEAR ECB??              00199000 1959
02028A 4780 A2B8       202B8         264          BE    CLEAR             -> YES, NO NEED TO RE-LINK PORT.     00200000 286

02028E 8000 B500       21500         266          SSM   DISABLE           DIS-ALLOW INTERUPTS                  00202000 791
020292 BF5F B450       21450         267          ICM   R5,B'1111',PA$LAST GET LAST RUNABLE PORT ADDR.         00203000 780
                                     268          DROP  R2                                                   00204000
020296 4740 A2A6       202A6         269          BM    REQNEW            -> REQUED TO FORM LIST LENGTH 1.     00205000 276
                              00000  270          USING CDBSPORT,R5       ADDRESS PORT.                      00206000 1958
02029A 5020 5004       00004         271          ST    R2,PORT$NR        CHAIN NEW REQ. TO OLD LAST REQ.      00207000 1960
                                     272          DROP  R5                                                   00208000
02029E 5020 B450       21450         273          ST    R2,PA$LAST        MAKE NEW PORT LAST PORT.             00209000 780
0202A2 47F0 A2B4       202B4         274          B     STEP1J            -> GO TO COMMON CODE.                00210000 283

0202A6                               276 REQNEW   DS    0H                                                   00212000
0202A6 5020 B44C       2144C         277          ST    R2,PA$FIRST       THIS IS THEN THE FIRST RUNABLE PORT. 00213000 779
0202AA 5020 B450       21450         278          ST    R2,PA$LAST        LIKEWISE THE LAST RUNABLE PORT.      00214000 780
                              00000  279          USING CDBSPORT,R2       ADDRESS PORT.                      00215000 1958
0202AE D203 2004 B4FC 00004 214FC    280          MVC   PORT$NR,NULLPTR   AND IT DOESN'T POINT TO ANYONE.    00216000 1960 790
                                     281          DROP  R2                                                   00217000

0202B4                               283 STEP1J   DS    0H                                                   00219000
0202B4 8000 B501       21501         284          SSM   ENABLE            ALLOW INTERUPTS                    00220000 792
                              00000  285          USING CDBSPORT,R2       RE-ESTABLISH ADDRESSABILITY.       00221000 1958
0202B8                               286 CLEAR    DS    0H                                                   00222000

                                     288 *** (2)                                                            00224000

0202B8 4110 B650       21650         290          LA    R1,RECVCB         RECEIVE REQUEST FROM USER MACHINE.   00226000 902
                              00000  291          USING VMCPARM,R1        ADDRESS IT.                        00227000 1965
0202BC D201 1004 4004 00004 00004    292          MVC   VMCPUMID,VMCMUMID COPY REQ'D FIELDS                  00228000 1988 2015
0202C2 D200 1006 4006 00006 00006    293          MVC   VMCPSRCT,VMCMSRCT  ...                               00229000 1989 2016
0202C8 D200 1007 4007 00007 00007    294          MVC   VMCPSNKT,VMCMSNKT  ...                               00230000 1990 2017
0202CE D207 1008 4008 00008 00008    295          MVC   VMCPUSER,VMCMUSER  ...                               00231000 1991 2018
0202D4 D203 1010 2008 00010 00008    296          MVC   VMCPVADA,PORT$CB@  ...                               00232000 1992 1961
0202DA D203 1014 3000 00014 00000    297          MVC   VMCPLENA,CCBLEN     ...                            00233000 1993 1883
                                     298          DROP  R1                                                   00234000
0202E0 0AD3                          299          SVC   211               ISSUE VMCF SVC.                    00235000
0202E2 12FF                          300          LTR   R15,R15           TEST RC FROM SVC.                  00236000
0202E4 4770 B938       21938         301          BNE   ERR008           -> ON BAD RC.                      00237000 1080

                                     303 *** (3)                                                            00239000

0202E8 4150 0001       00001         305          LA    R5,1              ARG COUNT.                         00241000
0202EC 4160 300C       0000C         306          LA    R6,CCB$ARGS       ARG LIST.                          00242000 1890

0202F0 5870 6000       00000         308 NEXT1    L     R7,0(,R6)         GET OFFSET FOR CURRENT ARG.        00244000
0202F4 5A70 2008       00008         309          A     R7,PORT$CB@       ADD IN BASE ADDR.                  00245000 1961
0202F8 5070 6000       00000         310          ST    R7,0(,R6)         STORE ADDRESS FOR CURRENT ARG.     00246000
0202FC 4150 5001       00001         311          LA    R5,1(,R5)         INCREMENT ARG COUNT.               00247000
020300 5950 3008       00008         312          C     R5,CCB#ARGS       DONE YET??                         00248000 1888
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

020304 4720 A310       20310          313           BH     DONE1              -> YES, SET HOB.                  00249000 318

020308 4160 6004       00004          315           LA     R6,4(,R6)          INCREMENT ADDRESS.                00251000
02030C 47F0 A2F0       202F0          316           B      NEXT1              -> DO IT AGAIN SAM.               00252000 308

020310 9680 6000       00000          318 DONE1     OI     0(R6),BIT0         TURN ON HIGH ORDER BIT.           00254000 938

                                      320 *** (4)                                                             00256000

                                      322 *.                                                                  00258000
                                      323 * A comment here is in order.  IDMS determines the id of a RUN-UNIT by 00259000
                                      324 * its PROGRAM_NAME, and, the address of where it (IDMS) was called from 00260000
                                      325 * ie, R14. Thus, a little razzle dazzle is performed here.  At CCBBR10 00261000
                                      326 * in each CIAM_CB the instruction BR  R10 is assembled.  Thus, control 00262000
                                      327 * is returned from IDMS to the point CCBBR10, which does an immediate 00263000
                                      328 * branch to DMLEXEC code below.  Note that R10 is used in CIAMDBMS as 00264000
                                      329 * a base register, thus the saving of R10 before the BALR below.       00265000
                                      330 *.                                                                  00266000

020314 4110 300C       0000C          332           LA     R1,CCB$ARGS        R1 POINTS TO ARGLIST.             00268000 1890
020318 58F0 B4E8       214E8          333           L      R15,AIDMS          GET ADDRESS OF IDMS.              00269000 784
02031C 41E0 3074       00074          334           LA     R14,CCBBR10        GET RETURN ADDRESS.               00270000 1899
020320 50A0 B4E0       214E0          335           ST     R10,R10SAV         SAVE BASE REG 10                  00271000 782
020324 05AF                           336           BALR   R10,R15            -> GO TO IDMS.                    00272000
020326 58A0 B4E0       214E0          337           L      R10,R10SAV         RESTORE R10                       00273000 782

02032A 45E0 C328       22328          339           BAL    R14,MSG025         -> WRITE LOG OF IDMS TRANSACTION. 00275000 1524

                                      341 *** (5)                                                             00277000

02032E 4110 B678       21678          343           LA     R1,REPLCB          REPLY MESSAGE TO USER MACHINE.    00279000 916
                                00000 344           USING  VMCPARM,R1         ADDRESS IT.                       00280000 1965
020332 D201 1004 4004  00004 00004    345           MVC    VMCPUMID,VMCMUMID  COPY REQ'D FIELDS                00281000 1988 2015
020338 D200 1006 4006  00006 00006    346           MVC    VMCPSRCT,VMCMSRCT   ...                           00282000 1989 2016
02033E D200 1007 4007  00007 00007    347           MVC    VMCPSNKT,VMCMSNKT   ...                           00283000 1990 2017
020344 D207 1008 4008  00008 00008    348           MVC    VMCPUSER,VMCMUSER   ...                           00284000 1991 2018
02034A D203 1010 2008  00010 00008    349           MVC    VMCPVADA,PORT$CB@   ...                           00285000 1992 1961
020350 D203 1014 3000  00014 00000    350           MVC    VMCPLENA,CCBLEN     ...                           00286000 1993 1883
                                      351           DROP   R1                                                00287000
020356 0AD3                           352           SVC    211                ISSUE VMCF SVC.                   00288000
020358 12FF                           353           LTR    R15,R15            STATUS OK??                       00289000
02035A 4770 B97C       2197C          354           BNE    ERR009             -> ON BAD STATUS.                 00290000 1095

02035E D503 4020 B6A0  00020 216A0    356           CLC    VMCMUSE(4),FINISH  WAS THE LAST DML A FINISH DML??  00292000 2023 929
020364 4780 A4FC       204FC          357           BE     REMPORTF           -> YES, FREE THIS PORT.           00293000 535
020368 D503 4020 B6A4  00020 216A4    358           CLC    VMCMUSE(4),ROLLBACK HOW ABOUT ROLLBACK??             00294000 2023 930
02036E 4780 A500       20500          359           BE     REMPORTR           -> YEP, REMOVE THE PORT.          00295000 536

020372 47F0 A224       20224          361           B      DMLEXEC            -> GO GET NEXT PORT TO SERVICE.   00297000 208
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

020376                              363 NOWORK   DS    0H          HERE TO WAIT FOR WORK TO DO.          00299000
020376 45E0 B9BE      219BE         364          BAL   R14,MSG010  -> TELL WORLD OF WAIT STATE.          00300000 1110
02037A B20C B6C8      216C8         365          SCKC  FOREVER     MAKE CLOCK WAIT FOREVER.              00301000 956
02037E B205 B6E8      216E8         366          STCK  TMPTOD      GET CURRENT TIME OF DAY.              00302000 959
020382 D207 B6E0 B6E8 216E0 216E8   367          MVC   SAVETOD,TMPTOD SAVE OLD TIME OF DAY.            00303000 958 959
020388 58F0 B6E8      216E8         368          L     R15,TMPTOD  ...                                   00304000 959
02038C 5AF0 B6BC      216BC         369          A     R15,CDBSTOL ADD IN TIME LIMIT FOR CIAMDBMS.       00305000 936
020390 50F0 B6E8      216E8         370          ST    R15,TMPTOD  STORE TIMEOUT TIME.                   00306000 959
020394 B20C B6E8      216E8         371          SCKC  TMPTOD      AND SET NEW TIME OF DAY.              00307000 959
020398 D703 B502 B502 21502 21502   372          XC    DMLEXECB,DMLEXECB MAKE SURE ECB IS CLEARED.       00308000 794 794
                                    373          WAIT  1,ECB=DMLEXECB WAIT FOR WORK.                   00309000
02039E 4110 B502      21502         374+         LA    1,DMLEXECB                LOAD PARAMETER REG 1    00100000 794
0203A2 4100 0001      00001         375+         LA    0,1(0,0)                  LOAD PARAMETER REG 0    00280000
0203A6 0A01                         376+         SVC   1                         LINK TO WAIT ROUTINE    00280000
0203A8 B20C B6C8      216C8         377          SCKC  FOREVER     MAKE SURE WE DON'T TIMEOUT.           00310000 956
0203AC 47F0 A224      20224         378          B     DMLEXEC     -> GO TO WORK.                        00311000 208



0203B0                              380 REJECT   DS    0H          REJECT INTERUPT, NOT SEND/RECV        00313000
                                    381 *                         PROTOCOL.                             00314000

0203B0 45E0 C41E      2241E         383          BAL   R14,ERR026  -> LOG REJECTION.                    00316000 1564

0203B4 4110 B600      21600         385          LA    R1,RJCTCB   GET REJECT CONTROL BLOCK              00318000 874
                                00000 386          USING VMCPARM,R1 ADDRESS CONTROL BLOCK.             00319000 1965

0203B8 D201 1004 4004 00004 00004   388          MVC   VMCPUMID,VMCMUMID COPY REQ'D FIELDS.           00321000 1988 2015
0203BE D200 1006 400C 0000C 0000C   389          MVC   VMCPSRCT,VMCMSRCT  ...                         00322000 1989 2016
0203C4 D200 1007 4007 00007 00007   390          MVC   VMCPSNKT,VMCMSNKT  ...                         00323000 1990 2017
0203CA D207 1008 4008 00008 00008   391          MVC   VMCPUSER,VMCMUSER  ...                         00324000 1991 2018
                                    392          DROP  R1                                            00325000
0203D0 0AD3                         393          SVC   211         ISSUE VMCF SVC.                       00326000

0203D2 47F0 A224      20224         395          B     DMLEXEC     -> GET NEXT WORK TO DO.               00328000 208
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

0203D6                           397 PORTAUTH DS    0H                                                      00331000

                                 399 *.                                                                     00333000
                                 400 * Upon entry,                                                          00334000
                                 401 *                                                                      00335000
                                 402 * R2 == PORTAUTH ECB address.                                          00336000
                                 403 * R3 == CLAM_CB for PORTAUTH.                                          00337000
                                 404 *                                                                      00338000
                                 405 *                                                                      00339000
                                 406 * Request has been UNSTACKed and checked for validity as per SEND/RECV 00340000
                                 407 * protocol.                                                           00341000
                                 408 *                                                                      00342000
                                 409 *.                                                                     00343000

0203D6 94F7 B6C0       216C0     411         NI    CDBSFLG1,X'FF'-PA$ERR  NO ERROR YET IN PORT AUTH REQUEST 00345000 946 951
0203DA 4110 B580       21580     412         LA    R1,PA$RECV             RECEIVE PORT REQUEST CONTROL BLOCK. 00346000 828
                                 413         USING VMCPARM,R1             ADDRESS IT.                       00347000 1965
0203DE D201 1004 4004  00004 00004 414         MVC   VMCPUMID,VMCMUMID      COPY REQ'D FIELDS.                00348000 1988 2015
0203E4 D200 1006 4006  00006 00006 415         MVC   VMCPSRCT,VMCMSRCT       "                                00349000 1989 2016
0203EA D200 1007 4007  00007 00007 416         MVC   VMCPSNKT,VMCMSNKT       "                                00350000 1990 2017
0203F0 D207 1008 4008  00008 00008 417         MVC   VMCPUSER,VMCMUSER       "                                00351000 1991 2018
                                 418         DROP  R1                                                         00352000
0203F6 0AD3                      419         SVC   211                    ISSUE VMCF SVC.                   00353000
0203F8 12FF                      420         LTR   R15,R15                TEST RC FROM SVC.                 00354000
0203FA 4770 B9EA       219EA     421         BNZ   ERR011                -> WRITE ERRMSG,                  00355000 1121
                                 422 *                                      THEN, GOTO REPLYPA.             00356000


0203FE 8000 B500       21500     424         SSM   DISABLE                DIS-ALLOW INTERUPTS.              00358000 791
020402 BF7F B448       21448     425         ICM   R7,B'1111',PA$FLST     ANY FREE PORTS??                  00359000 778
020406 4740 BA48       21A48     426         BM    ERR012                 -> NO, SO WRITE ERRMSG,           00360000 1139
                                 427 *                                      THEN, GOTO REPLYPA.             00361000
                                 428         DROP  R2                     R2 CDBSPORT FOR PORTAUTH.         00362000
                           00000 429         USING CDBSPORT,R7            R7 CDBSPORT FOR JUST ALLOCATED PORT. 00363000 1958

02040A D203 B448 7004  21448 00004 431         MVC   PA$FLST,4(R7)          POINT TO NEXT FREE PORT           00365000 778
020410 8000 B501       21501     432         SSM   ENABLE                 ALLOW INTERUPTS.                  00366000 792

020414 5800 B5D0       215D0     434         L     R0,PORTRCB             GET STORAGE REQUESTED IN BYTES.   00368000 855
020418 5A00 C98C       2298C     435         A     R0,=F'7'               ROUND UP TO NEXT DBL-WORD.        00369000
02041C 8A00 0003       00003     436         SRA   R0,3                   CONVERT BYTES -> DBL-WORDS.       00370000
                                 437         DMSFREE DWORDS=(0),TYPE=USER,ERR=*     GET MEMORY FOR PORT.   00371000
020420 0ACB                      438+        SVC   203                                                      00021000
020422 E1FC                      439+        DC    H'-7684'                                                 00022000
020424 90F1 B6D0       216D0     440         STM   R15,R1,FREEFRET        SAVE ARGS TO DMSFREE              00372000 957
020428 12FF                      441         LTR   R15,R15                TEST RC FROM SVC.                 00373000
02042A 4770 BAD0       21AD0     442         BNZ   ERR013                 -> WRITE ERRMSG, RETURN TO REPLYPA 00374000 1165

02042E 1F55                      444         SLR   R5,R5                  CLEAR REG.                        00376000
020430 BF51 7008       00008     445         ICM   R5,B'0001',PORT$CB@     GET PORT # (INIT. BY CDBSINIT)    00377000 1961
020434 5050 B5D4       215D4     446         ST    R5,PORTRCB+4           STORE RETURNED PORT #             00378000 855
020438 D203 7004 B4FC  00004 214FC 447         MVC   PORT$NR,NULLPTR        INDICATE NOT IN RUN-PORT CHAIN.   00379000 1960 790
02043E 5010 7008       00008     448         ST    R1,PORT$CB@            STORE DATA AREA ADDR. FOR THIS PORT 00380000 1961
                                 449         DROP  R3,R7                  R3 CLAMCB, R7 CDBSPORT            00381000
020442 1881                      450         LR    R8,R1                  GET COPY OF JUST ALLOCATED PORT ADDR 00382000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81
                                    00000   451          USING CIAMCB,R8          ADDRESS JUST ALLOCATED DATA AREA.    00383000 1876
020444 D203 8000 B5D0 00000 215D0   452          MVC   CCBLEN,PORTRCB     COPY LEN (IN BYTES) THIS CB.         00384000 1883 855
02044A BE51 8087      00087         453          STCM  R5,B'0001',CCBDPORT STORE CONTROL INFO.                   00385000 1906
02044E D200 807E 4006 0007E 00006   454          MVC   CCBUPORT,VMCMSRCT   ...                                  00386000 1904 2016
020454 D207 8076 4008 00076 00008   455          MVC   CCBUVMID,VMCMUSER   ...                                  00387000 1903 2018

02045A 4110 B558      21558         457          LA    R1,AUTHSPEC        AUTHORIZE THIS PORT.                 00389000 814
                                    00000   458          USING VMCPARM,R1         ADDRESS CONTROL BLOCK.         00390000 1965
02045E D200 1006 8087 00006 00087   459          MVC   VMCPSRCT,CCBDPORT  COPY REQ'D FIELDS.                    00391000 1989 1906
020464 D200 1007 807E 00007 0007E   460          MVC   VMCPSNKT,CCBUPORT   ...                                  00392000 1990 1904
02046A D207 1008 8076 00008 00076   461          MVC   VMCPUSER,CCBUVMID   ...                                  00393000 1991 1903
020470 5070 1010      00010         462          ST    R7,VMCPVADA        STORE ECB ADDR.                      00394000 1992
                                    463          DROP  R1,R8                                                    00395000
020474 0AD3                         464          SVC   211                ISSUE VMCF SVC.                      00396000
020476 12FF                         465          LTR   R15,R15            TEST RC FROM SVC.                    00397000
020478 4770 BC00      21C00         466          BNZ   ERR014             -> WRITE ERRMSG                      00398000 1211

02047C                              468 REPLYPA  DS    0H                                                     00400000
02047C 4110 B5A8      215A8         469          LA    R1,PA$REPLY        REPLY THE PORT # ALLOC. OR ERR. CD.  00401000 842
                                    00000   470          USING VMCPARM,R1         ADDRESS CONTROL BLOCK          00402000 1965
020480 D201 1004 4004 00004 00004   471          MVC   VMCPUMID,VMCMUMID  COPY REQ'D FIELDS                     00403000 1988 2015
020486 D200 1006 4006 00006 00006   472          MVC   VMCPSRCT,VMCMSRCT   ...                                  00404000 1989 2016
02048C D200 1007 4007 00007 00007   473          MVC   VMCPSNKT,VMCMSNKT   ...                                  00405000 1990 2017
020492 D207 1008 4008 00008 00008   474          MVC   VMCPUSER,VMCMUSER   ...                                  00406000 1991 2018
                                    475          DROP  R1                                                       00407000
020498 0AD3                         476          SVC   211                ISSUE VMCF SVC.                      00408000
02049A 12FF                         477          LTR   R15,R15            TEST RC FROM SVC                     00409000
02049C 4770 BCC4      21CC4         478          BNZ   ERR015             -> BAD RC, WRITE ERRMSG, THEN        00410000 1244
                                    479 *                                    RETURN TO CHKPAECB, BELOW.         00411000

0204A0 9108 B6C0      216C0         481          TM    CDBSFLG1,PA$ERR    HAS PORT REQUEST RAISED AN ERROR??   00413000 946 951
0204A4 47E0 C18E      2218E         482          BNO   MSG023             -> NO, WRITE LOG OF ALLOC. PORT.     00414000 1458
                                    483 *                                    RETURN TO CHKPAECB                 00415000

                                    485 *.                                                                      00417000
                                    486 * Bad news, if flow of control reaches here, ie, I have not branched    00418000
                                    487 * to CHKPAECB below, then PA$ERR is on, and either,                     00419000
                                    488 *                                                                       00420000
                                    489 * No free ports,  PORTRCB+4 = NOPORTCD, or,                            00421000
                                    490 * No storage,     PORTRCB+4 = NOSTORCD, or,                            00422000
                                    491 * VMCF error,     PORTRCB+4 = VMCPERR1, VMCPERR2, OR VMCPERR3.         00423000
                                    492 *                                                                       00424000
                                    493 * Now, clean up the mess that we are in.                              00425000
                                    494 *.                                                                      00426000

0204A8 D503 B5D4 B6B4 215D4 216B4   496          CLC   PORTRCB+4(4),NOPORTCD  WAS IT NO PORTS AVAILABLE??     00428000 855 934
0204AE 4780 A4F0      204F0         497          BE    CHKPAECB           -> NO DAMAGE DONE.                   00429000 528

0204B2 D503 B5D4 B6A8 215D4 216A8   499          CLC   PORTRCB+4(4),VMCPERR1  RECEIVE OF PORT REQ. VMCF ERR??  00431000 855 931
0204B8 4780 A4F0      204F0         500          BE    CHKPAECB           -> LUCKY, NO DAMAGE DONE.            00432000 528

0204BC 8000 B500      21500         502          SSM   DISABLE            DON'T BOTHER ME.                     00434000 791
                                    503 *.                                                                      00435000
                                    504 * R7 == Address of just allocated PORT.                                 00436000
                                    505 * R8 == Address of just allocated port's CIAM CB.                       00437000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 02.1 20.35 10/25/81

                                    506 * PA$FLST == Address of 1st free port.                                    00438000
                                    507 * FREEFRET == R15,R0,R1 from DMSFREE request.                             00439000
                                    508 *.                                                                       00440000
                              00000 509          USING CDBSPORT,R7          ADDRESS PORT.                       00441000 1958
                              00000 510          USING CIAMCB,R8            ADDRESS CIAM_CB.                    00442000 1876
0204C0 D70B 7000 7000 00000 00000 511          XC    0(PORTSECL,R7),0(R7) CLEAR PORT.                         00443000 1962
0204C6 D200 700B 8087 0000B 00087 512          MVC   PORT$CB@+3(1),CCBDPORT  STORE THE PORT ID #              00444000 1961 1906
0204CC D203 7004 B448 00004 21448 513          MVC   PORT$NR,PA$FLST      CHAIN TO FREE LIST.                 00445000 1960 778
0204D2 5070 B448      21448       514          ST    R7,PA$FLST            ...                                 00446000 778
                                    515          DROP  R7,R8                                                    00447000

0204D6 9801 B6D4      216D4       517          LM    R0,R1,FREEFRET+4     GET PARMS FOR FRET.                 00449000 957
                                    518          DMSFRET DWORDS=(0),LOC=(1),ERR=*                               00450000
0204DA 0ACB                         519+         SVC   203                                                      00021000
0204DC FDFB                         520+         DC    H'-517'                                                  00022000
0204DE 90F1 B6D0      216D0       521          STM   R15,R1,FREEFRET      SAVE REGS FROM DMSFRET.             00451000 957
0204E2 12FF                       522          LTR   R15,R15              TEST DMSFRET RC.                    00452000
0204E4 4780 A4EC      204EC       523          BZ    *+8                  -> OK, SKIP ERROR MESSAGE.          00453000
0204E8 45E0 C592      22592       524          BAL   R14,ERR029           -> WRITE ERRMSG LOG.                00454000 1623

0204EC 8000 B501      21501       526          SSM   ENABLE               OK, BUT ONLY IF YOU REALLY MUST.    00456000 792

0204F0                            528 CHKPAECB DS    0H                                                       00458000
                              00000 529          USING CDBSPORT,R2          ADDRESS OF PORTAUTH.                00459000 1958
0204F0 9500 2000      00000       530          CLI   PORT$ECB,X'00'       DID UNSTACK CLEAR ECB??             00460000 1959
0204F4 4780 A224      20224       531          BE    DMLEXEC              -> YES, GET NEXT REQUEST.           00461000 208

0204F8 47F0 A252      20252       533          B     UNSTACK              -> NO, GET NEXT PORT REQUEST.       00463000 242
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

0204FC 47F0 BD7E       21D7E         535 REMPORTF B     MSG016              -> WRITE OUTMSG                    00466000 1277
020500 47F0 BE18       21E18         536 REMPORTR B     MSG017              -> ...                             00467000 1304
020504                               537 REMPORT  DS    0H                                                     00468000

020504 4110 B628       21628         539          LA    R1,UNAUTHCB         UN-AUTHORIZE THIS PORT.            00470000 888
                                00000  540          USING VMCPARM,R1          ADDRESS IT.                      00471000 1965
020508 D200 1006 4006  00006 00006   541          MVC   VMCPSRCT,VMCMSRCT   COPY REQ'D FIELDS.                 00472000 1989 2016
02050E D200 1007 4007  00007 00007   542          MVC   VMCPSNKT,VMCMSNKT    ...                             00473000 1990 2017
020514 D207 1008 4008  00008 00008   543          MVC   VMCPUSER,VMCMUSER    ...                             00474000 1991 2018
                                     544          DROP  R1                                                     00475000
02051A 0AD3                          545          SVC   211                 ISSUE VMCF SVC.                    00476000
02051C 12FF                          546          LTR   R15,R15             TEST RC FROM SVC.                  00477000
02051E 4770 BEB4       21EB4         547          BNZ   ERR018             -> WRITE OUT ERRMSG                 00478000 1331

020522                               549 FREEMEM  DS    0H                                                     00480000
                                00000  550          USING CIAMCB,R3           ADDRESS OF PORT CIAMCB TO DE-ALLOCAT 00481000 1876
020522 5800 3000       00000         551          L     R0,CCBLEN           GET LENGTH OF PORT IN BYTES.       00482000 1883
                                     552          DROP  R3                                                     00483000
020526 5A00 C98C       2298C         553          A     R0,=F'7'            ROUND UP TO NEXT DBL-WORD.         00484000
02052A 8A00 0003       00003         554          SRA   R0,3                CONVERT TO DBL-WORDS.              00485000
02052E 1813                          555          LR    R1,R3               COPY ADDRESS OF DATA AREA          00486000
                                     556          DMSFRET DWORDS=(0),LOC=(1),ERR=*                             00487000
020530 0ACB                          557+         SVC   203                                                    00021000
020532 FDFB                          558+         DC    H'-517'                                                00022000
020534 12FF                          559          LTR   R15,R15             TEST RC FROM SVC                   00488000
020536 4780 A542       20542         560          BZ    *+12                -> OK, SKIP ERRMSG.                00489000
02053A 90F1 B6D0       216D0         561          STM   R15,R1,FREEFRET     SAVE ARGUEMENTS TO DMSFRET         00490000 957
02053E 45E0 BF66       21F66         562          BAL   R14,ERR019          -> LOG ERROR.                      00491000 1362

020542 D703 2000 2000  00000 00000   564          XC    PORT$ECB,PORT$ECB   MAKE SURE ECB IS CLEARED.          00493000 1959 1959
020548 D703 2008 2008  00008 00008   565          XC    PORT$CB@,PORT$CB@   LIKEWISE FOR THE CIAM_CB ADDR.      00494000 1961 1961
02054E 4110 B628       21628         566          LA    R1,UNAUTHCB         GET VMCP ADDRESSABILITY.           00495000 888
                                00000  567          USING VMCPARM,R1          ...                              00496000 1965
020552 D200 200B 1006  000B 00006    568          MVC   PORT$CB@+3(1),VMCPSRCT   SAVE THE PORT #                 00497000 1961 1989
                                     569          DROP  R1                                                     00498000
020558 8000 B500       21500         570          SSM   DISABLE             DIS-ALLOW INTERUPTS NOW.           00499000 791
02055C D203 2004 B448  0004 21448    571          MVC   PORT$NR,PA$FLST     CHAIN TO FREE LIST.                00500000 1960 778
020562 5020 B448       21448         572          ST    R2,PA$FLST           ...                              00501000 778
020566 8000 B501       21501         573          SSM   ENABLE              ALLOW INTERUPTS NOW.               00502000 792


02056A 47F0 A224       20224         575          B     DMLEXEC             -> GO GET SOME MORE WORK TO DO.    00504000 208
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                    577 CDBSTERM PROLOGUE OPT=ENTRY,AD=CIAMDBMS,SA=TERMSA,BR=(R10,R11,R12)      00507000
                                    578+         ENTRY CDBSTERM             NOTE PROLOGUE ENTRY OPTION          00034000

02056E                              580+CDBSTERM DS    0H                   DEFINE LABEL,MAKE SURE ALIGNED      00051000
                           2056E    581+         USING *,15                FOR TEMPORARY ADDRESSIBILITY        00052000
02056E 47F0 F01C      0001C         582+         B     28(,15)             BRANCH AROUND ...                   00018000
020572 09C3C4C2E2E3C5D9             583+         DC    AL1(9),CL9'CDBSTERM'       ID                       00020000
02057C F1F061F2F561F8F1             584+         DC    CL14'10/25/81 20.35'       DATE & TIME STAMP        00021000
02058A 90EC D00C      0000C         585+         STM   14,12,12(13)        SAVE STANDARD REGISTER SET          00071000
02058E 50D0 F12A      20698         586+         ST    13,TERMSA+4         SAVE OLD POINTER IN NEW AREA        00119000 691
020592 18AD                         587+         LR    R10,13              MOVE OLD POINTER OVER               00124000
020594 41D0 F126      20694         588+         LA    13,TERMSA           ADDRESS OF NEW SAVE AREA            00125000 691
020598 50DA 0008      00008         589+         ST    13,8(R10)           SAVE NEW POINTER IN OLD AREA        00126000
02059C                              590+         CNOP  0,4                                                     00019000
02059C 47F0 F036      205A4         591+         B     *+8                 SKIP AROUND ADDRESS CONSTANT        00020000
0205A0 00020000                     592+         DC    A(CIAMDBMS)         ADDRESS CONSTANT FOR AD=PARAMETER   00021000 2
0205A4 58A0 F032      205A0         593+         L     R10,*-4             LOAD ADCON INTO RIGHT REGISTER      00022000
                                    594+         DROP  15                  CLEAN UP USING SITUATION            00029000
                           20000    595+         USING CIAMDBMS,R10,R11,R12                                    00030000 2
0205A8 41B0 0FFF      00FFF         596+         LA    R11,4095             LOAD IN ADDRESS                  00135000
0205AC 41BB A001      00001         597+         LA    R11,1(R11,R10)                SET USING VALUES           00136000
0205B0 41C0 0FFF      00FFF         598+         LA    R12,4095             LOAD IN ADDRESS                  00135000
0205B4 41CC B001      00001         599+         LA    R12,1(R12,R11)                SET USING VALUES           00136000

0205B8 9620 B6C0      216C0         601          OI    CDBSFLG1,SYSTERM    NOTE EVENT.                         00508000 946 949
0205BC 45E0 BFE4      21FE4         602          BAL   R14,MSG020          -> ANNOUNCE ENTRANCE                00509000 1384

0205C0                              604 INTRNXIT DS    0H                                                     00511000

                                    606 * RESTORE FM ABEND ADDRESS IN NUCON.                                   00513000

                           00000    608          USING NUCON,R0                                                00515000 2058
0205C0 5860 B4F8      214F8         609          L     R6,CDBS$FM          GET SAVE FM ABEND ADDRESS.          00516000 789
                                    610          DMSKEY NUCLEUS            ALLOW WRITE TO NUCLEUS AREA.        00517000
0205C4 0ACB                         611+         SVC   203                                                     00016000
0205C6 0108                         612+         DC    H'264'                   'DMSKEY' CODE                00017000
0205C8 94EF 05E5      005E5         613          NI    KSUFLAGS,X'FF'-FMRUN  MAKE DMSABN NO LONGER THINK THIS   00518000 2430 2434
                                    614 *                                    IS FM.                          00519000
0205CC 5060 0E0C      00E0C         615          ST    R6,FUABNADD         RESTORE FM ABEND ADDRESS.           00520000 2683
                                    616          DMSKEY RESET              DISALLOW WRITE ACCESS.              00521000
0205D0 0ACB                         617+         SVC   203                                                     00016000
0205D2 0208                         618+         DC    H'520'                   'DMSKEY' CODE                00017000
                                    619          DROP  R0                                                      00522000


0205D4 4110 B628      21628         621          LA    R1,UNAUTHCB         GET CONTROL BLOCK FOR UN-AUTHING    00524000 888
0205D8 4120 000C      0000C         622          LA    R2,PORTSECL         LENGTH OF ONE PORT                  00525000 1962
0205DC 4130 B43C      2143C         623          LA    R3,PA$PORT          LAST PORT.                          00526000 775
0205E0 4140 A848      20848         624          LA    R4,PORTBASE         START OF PORT LIST                  00527000 773
                           00000    625          USING VMCPARM,R1          ADDRESS VMCF PARM.                  00528000 1965
                           00000    626          USING CDBSPORT,R4         ADDRESS CURRENT PORT.               00529000 1958
                           00000    627          USING CIAMCB,R5           ADDRESS CIAM_CB, CURRENT PORT.      00530000 1876

0205E4                              629 LOOP2    DS    0H                                                    00532000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

0205E4 D503 4008 C990 00008 22990   630          CLC   PORT$CB@,=X'000000FF'  IS THIS PORT ACTIVE??          00533000 1961
0205EA 4740 A65A      2065A         631          BL    NOTACTIV              -> NO, SKIP IT.                  00534000 670

0205EE 5850 4008      00008         633          L     R5,PORT$CB@           GET CIAM_CB BASE ADDR.           00536000 1961
0205F2 D200 1006 5087 00006 00087   634          MVC   VMCPSRCT,CCBDPORT     COPY REQ'D FIELDS.               00537000 1989 1906
0205F8 D200 1007 507E 00007 0007E   635          MVC   VMCPSNKT,CCBUPORT      ...                             00538000 1990 1904
0205FE D207 1008 5076 00008 00076   636          MVC   VMCPUSER,CCBUVMID      ...                             00539000 1991 1903
                                    637          DROP  R1                                                      00540000
020604 45E0 C090      22090         638          BAL   R14,MSG022           -> TELL USER THAT PORT IS GOING AWAY 00541000 1411
020608 0AD3                         639          SVC   211                   ISSUE VMCP SVC.                  00542000

                            00000   641          USING CIAMCB,R5             ADDRESS OF PORT CIAMCB TO DE-ALLOCAT 00544000 1876
02060A 95FF 5087      00087         642          CLI   CCBDPORT,255          ARE WE AT THE PORT AUTHORITY??   00545000 1906
02060E 4780 A632      20632         643          BE    SKIPFRET              -> YES, DON'T FRET THIS ONE.     00546000 657
020612 5800 5000      00000         644          L     R0,CCBLEN             GET LENGTH OF PORT IN BYTES.     00547000 1883
                                    645          DROP  R5                                                      00548000
020616 5A00 C98C      2298C         646          A     R0,=F'7'              ROUND UP TO NEXT DBL-WORD.       00549000
02061A 8A00 0003      00003         647          SRA   R0,3                  CONVERT TO DBL-WORDS.            00550000
02061E 1815                         648          LR    R1,R5                 COPY ADDRESS OF CIAM_CB.         00551000
                                    649          DMSFRET DWORDS=(0),LOC=(1),ERR=*                           00552000
020620 0ACB                         650+         SVC   203                                                  00021000
020622 FDFB                         651+         DC    H'-517'                                              00022000
020624 12FF                         652          LTR   R15,R15               TEST RC FROM SVC                 00553000
020626 4780 A632      20632         653          BZ    *+12                  -> OK, SKIP ERRMSG STUFF.        00554000
02062A 90F1 B6D0      216D0         654          STM   R15,R1,FREEFRET       STORE ARGS TO DMSFRET.           00555000 957
02062E 45E0 C4BA      224BA         655          BAL   R14,ERR027            -> GO LOG ERROR.                 00556000 1589

020632                              657 SKIPFRET DS    0H                                                    00558000

020632 D703 4000 4000 00000 00000   659          XC    PORT$ECB,PORT$ECB     MAKE SURE ECB IS CLEARED.        00560000 1959 1959
020638 D703 4008 4008 00008 00008   660          XC    PORT$CB@,PORT$CB@     LIKEWISE FOR THE CIAM_CB ADDR.   00561000 1961 1961
02063E 4110 B628      21628         661          LA    R1,UNAUTHCB           GET VMCP ADDRESSABILITY.         00562000 888
                            00000   662          USING VMCPARM,R1            ...                            00563000 1965
020642 D200 400B 1006 0000B 00006   663          MVC   PORT$CB@+3(1),VMCPSRCT   SAVE THE PORT #               00564000 1961 1989
                                    664          DROP  R1                                                      00565000
020648 8000 B500      21500         665          SSM   DISABLE               DIS-ALLOW INTERUPTS NOW.         00566000 791
02064C D203 4004 B448 00004 21448   666          MVC   PORT$NR,PA$FLST       CHAIN TO FREE LIST.              00567000 1960 778
020652 5020 B448      21448         667          ST    R2,PA$FLST             ...                             00568000 778
020656 8000 B501      21501         668          SSM   ENABLE                ALLOW INTERUPTS NOW.             00569000 792

02065A                              670 NOTACTIV DS    0H                                                    00571000
02065A 8742 A5E4      205E4         671          BXLE  R4,R2,LOOP2           -> GET NEXT PORT.                00572000 629


                                    673          CALL  VMCFTERM              ENTRY IN OS/VMCF TO TERMINATE VMCF. 00574000
02065E 0700                         674+         CNOP  0,4                                                  00300000
020660 47F0 A668      20668         675+         B     *+8                         BRANCH AROUND VCON     00320000
020664 00000000                     676+IHB0041B DC    V(VMCFTERM)                 ENTRY POINT ADDRESS    00340000 -
020668 58F0 A664      20664         677+         L     15,IHB0041B                 LOAD 15 WITH ENTRY ADR 00440000 676
02066C 05EF                         678+         BALR  14,15                       BRANCH TO ENTRY POINT  00460000
02066E B700 B6F8      216F8         679          LCTL  C0,C0,RESTCR0       RESTORE CONTROL REG. ZERO.           00575000 961
020672 9144 B6C0      216C0         680          TM    CDBSFLG1,SYSTOUT+FORCEINI  HERE FROM TOUT OR FORCE REINI 00576000 946 948 952
020676 4740 A04C      2004C         681          BM    REINIT                -> YES, START OVER AGAIN.        00577000 29
02067A 9102 B6C0      216C0         682          TM    CDBSFLG1,LOGOFF       HERE FROM LOGOFF EXT. INTRPT??   00578000 946 953
02067E 4710 A6DC      206DC         683          BO    RETOCMS               -> YES, GO BACK TO CMS.          00579000 694
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                    684           EPILOGUE SA=TERMSA                                          00580000

020682 58DD 0004       00004       686+          L     13,4(13)      RESTORE PREVIOUS SAVE AREA POINT        00054000
020686 58ED 000C       0000C       687+          L     14,12(13)     RELOAD REG 14                           00045000
02068A 980C D014       00014       688+          LM    0,12,20(13)   RELOAD REST OF REGS                     00048000
02068E 92FF D00C       0000C       689+          MVI   12(13),X'FF'  SHOW WE HAVE RETURNED                   00069000
020692 07FE                        690+          BR    14            RETURN NORMALLY TO CALLER               00073000
020694 0000000000000000            691+TERMSA    DC    18F'0'        SAVE AREA,NAMED BY MACRO                00080000

0206DC                             694 RETOCMS   DS    0H                                                    00582000
0206DC 41F0 00D3       000D3       695           LA    R15,X'D3'     RETURN CODE.                            00583000
0206E0 41D0 A6F8       206F8       696           LA    R13,INITSA    GET INITIAL SAVE AREA.                  00584000 704
                                   697           EPILOGUE SA=INITSA                                          00585000

0206E4 58DD 0004       00004       699+          L     13,4(13)      RESTORE PREVIOUS SAVE AREA POINT        00054000
0206E8 58ED 000C       0000C       700+          L     14,12(13)     RELOAD REG 14                           00045000
0206EC 980C D014       00014       701+          LM    0,12,20(13)   RELOAD REST OF REGS                     00048000
0206F0 92FF D00C       0000C       702+          MVI   12(13),X'FF'  SHOW WE HAVE RETURNED                   00069000
0206F4 07FE                        703+          BR    14            RETURN NORMALLY TO CALLER               00073000
0206F6 0000
0206F8 0000000000000000            704+INITSA    DC    18F'0'        SAVE AREA,NAMED BY MACRO                00080000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                    707 CDBSTOUT. PROLOGUE OPT=ENTRY,AD=CIAMDBMS,SA=TOUTSA,BR=(R10,R11,R12)      00588000
                                    708+          ENTRY CDBSTOUT             NOTE PROLOGUE ENTRY OPTION          00034000


020740                              710+CDBSTOUT  DS    0H                   DEFINE LABEL,MAKE SURE ALIGNED      00051000
                              20740 711+          USING *,15                 FOR TEMPORARY ADDRESSIBILITY        00052000
020740 47F0 F01C      0001C   712+          B     28(,15)                    BRANCH AROUND ...                   00018000
020744 09C3C4C2E2E3D6E4       713+          DC    AL1(9),CL9'CDBSTOUT'         1D                            00020000
02074E F1F061F2F561F8F1       714+          DC    CL14'10/25/81 20.35'         DATE & TIME STAMP             00021000
02075C 90EC D00C      0000C   715+          STM   14,12,12(13)               SAVE STANDARD REGISTER SET          00071000
020760 50D0 F0C0      20800   716+          ST    13,TOUTSA+4                SAVE OLD POINTER IN NEW AREA        00119000 768
020764 18AD                   717+          LR    R10,13                     MOVE OLD POINTER OVER               00124000
020766 41D0 F0BC      207FC   718+          LA    13,TOUTSA                  ADDRESS OF NEW SAVE AREA            00125000 768
02076A 50DA 0008      00008   719+          ST    13,8(R10)                  SAVE NEW POINTER IN OLD AREA        00126000
02076E 0700                   720+          CNOP  0,4                                                        00019000
020770 47F0 F038      20778   721+          B     *+8                        SKIP AROUND ADDRESS CONSTANT        00020000
020774 00020000               722+          DC    A(CIAMDBMS)                ADDRESS CONSTANT FOR AD=PARAMETER   00021000 2
020778 58A0 F034      20774   723+          L     R10,*-4                    LOAD ADCON INTO RIGHT REGISTER      00022000
                              724+          DROP  15                         CLEAN UP USING SITUATION            00029000
                              20000 725+          USING CIAMDBMS,R10,R11,R12                                  00030000 2
02077C 41B0 0FFF      00FFF   726+          LA    R11,4095                    LOAD IN ADDRESS                    00135000
020780 41BB A001      00001   727+          LA    R11,1(R11,R10)                        SET USING VALUES         00136000
020784 41C0 0FFF      00FFF   728+          LA    R12,4095                    LOAD IN ADDRESS                    00135000
020788 41CC B001      00001   729+          LA    R12,1(R12,R11)                        SET USING VALUES         00136000

02078C D501 1062 C996 00062 22996 731       CLC   98(2,R1),=X'00D1'  DUMP CIAMDBMS CONTROL STORAGE??          00589000
020792 4770 A79E      2079E   732           BNE   *+12               -> NO, CHECK FOR RE-INIT.                 00590000
020796 9610 B6C0      216C0   733           OI    CDBSFLG1,DUMPSTOR  SET FLAG.                                00591000 946 950
02079A 47F0 C692      22692   734           B     DUMPIT             -> AND GO DUMP.                           00592000 1657

02079E D501 1062 C998 00062 22998 736       CLC   98(2,R1),=X'00D2'  HOW ABOUT FORCED RE-INIT??               00594000
0207A4 4770 A7B0      207B0   737           BNE   *+12               -> NOPE, GO CHECK LOGOFF.                 00595000
0207A8 9604 B6C0      216C0   738           OI    CDBSFLG1,FORCEINI  SET FLAG.                                00596000 946 952
0207AC 47F0 C538      22538   739           B     MSG028             -> LOG RE-INIT.                           00597000 1611
                              740 *                                    MSG028 THEN GOES TO INTRNXIT,           00598000
                              741 *                                    WHICH  THEN GOES TO REINIT.             00599000

0207B0 D501 1062 C99A 00062 2299A 743       CLC   98(2,R1),=X'00D3'  HOW ABOUT FORCE LOGOFF?                  00601000
0207B6 4770 A7C2      207C2   744           BNE   *+12               -> NO, CHECK LOGOFF.                      00602000
0207BA 9602 B6C0      216C0   745           OI    CDBSFLG1,LOGOFF    SET FLAG.                                00603000 946 953
0207BE 47F0 C63E      2263E   746           B     MSG030             -> LOG LOGOFF.                           00604000 1645
                              747 *                                    MSG030 THEN GOES TO INTRNXIT,           00605000
                              748 *                                    WHICH RETURNS TO CMS.                   00606000

0207C2 D501 1062 C99C 00062 2299C 750       CLC   98(2,R1),=X'1004'  CLOCK COMPARATOR EXT. ITRPT?             00608000
0207C8 4770 A7E4      207E4   751           BNE   TOUTEXIT             -> NO, IGNORE.                          00609000 759
0207CC 9640 B6C0      216C0   752           OI    CDBSFLG1,SYSTOUT   NOTE EVENT.                              00610000 946 948
0207D0 B206 B6C8      216C8   753           SCKC  FOREVER            DON'T TIMEOUT ON ME.                      00611000 956
0207D4 B600 B6F0      216F0   754           STCTL C0,C0,SAVECR0      GET CONTROL REG 0.                        00612000 960
0207D8 94F7 B6F2      216F2   755           NI    SAVECR0+2,X'FF'-X'08' TURN OFF CLOCK.                      00613000 960
0207DC B700 B6F0      216F0   756           LCTL  C0,C0,SAVECR0      RELOAD CONTROL REG 0.                     00614000 960
0207E0 45E0 C016      22016   757           BAL   R14,ERR021         -> TELL WORLD OF IMPENDING DOOM.          00615000 1396

0207E4                        759 TOUTEXIT  DS    0H                                                         00617000
0207E4 94EF B6C0      216C0   760           NI    CDBSFLG1,X'FF'-DUMPSTOR MAKE SURE FLAG IS CLEARED.         00618000 946 950
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81
                                     761          EPILOGUE SA=TOUTSA                                          00619000
0207E8 58DD 0004          00004      763+         L     13,4(13)      RESTORE PREVIOUS SAVE AREA POINT        00054000
0207EC 58ED 000C          0000C      764+         L     14,12(13)     RELOAD REG 14                           00045000
0207F0 980C D014          00014      765+         LM    0,12,20(13)   RELOAD REST OF REGS                     00048000
0207F4 92FF D00C          0000C      766+         MVI   12(13),X'FF'  SHOW WE HAVE RETURNED                   00069000
0207F8 07FE                          767+         BR    14            RETURN NORMALLY TO CALLER               00073000
0207FA 0000
0207FC 0000000000000000              768+TOUTSA   DC    18F'0'        SAVE AREA,NAMED BY MACRO                00080000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                    771            ENTRY CDBS$DA,CDBS$DAE  FOR EASY LOCATION.                 00622000
020848                              772 CDBS$DA    DS    0D                BEGINNING OF DATA AREA             00623000
                              20848 773 PORTBASE  EQU   *                 ADDRESS OF PORT(0)                 00624000
020848                              774 PORTAREA   DS    256CL12           AREA FOR PORTLIST.                 00625000 ?
                              2143C 775 PA$PORT   EQU   *-12,12           LAST PORT IS THE PORT AUTHORITY    00626000
                              2143C 776 PA$ECB    EQU   PA$PORT,4         PORT AUTHORITY ECB                 00627000
                              00C00 777 PORTLEN   EQU   *-PORTBASE        LENGTH OF PORTLIST                 00628000 ?
021448 00020848                     778 PA$FLST    DC    AL4(PORTBASE)     HEAD OF CHAIN OF FREE PORTS        00629000 773
02144C FFFFFFFF                     779 PA$FIRST   DC    F'-1'             FIRST RUNABLE PORT.                00630000
021450 FFFFFFFF                     780 PA$LAST    DC    F'-1'             LAST RUNABLE PORT.                 00631000
021454 0000000000000000             781 PA$WAREA   DC    XL140'00'         PORT AUTHORITY WORK AREA.          00632000
0214E0 00000000                     782 R10SAV     DC    AL4(00)           SAVE AREA FOR REG10.               00633000
0214E4 00000000                     783 R15SAV     DC    AL4(00)           SAVE AREA FOR REG15.               00634000
0214E8 00000000                     784 AIDMS      DC    V(IDMS)           ADDRESS OF IDMS ENTRY.             00635000 -
                                    785            EXTRN IEAVMCF           REAL NAME FOR CDBSVMCF.            00636000
0214EC 00000000                     786 AIEAVMCF   DC    A(IEAVMCF)        ADDRESS OF IEAVMCF.                00637000 785
0214F0 00000A62                     787 AIEASTRT   DC    A(IEAVMCF+X'A62') ADDRESS OF IEAVMCF DATA AREA START. 00638000 785
0214F4 00000D27                     788 AIEAEND    DC    A(IEAVMCF+X'D27') ADDRESS OF IEAVMCF DATA AREA END.  00639000 785
0214F8 00000000                     789 CDBS$FM    DC    AL4(0)            FM ABEND ADDRESS SAVE.             00640000
0214FC FFFFFFFF                     790 NULLPTR    DC    F'-1'             VALUE TO USE AS A NULL POINTER.    00641000
021500 00                           791 DISABLE    DC    X'00'             DIS-ALLOW INTERUPTS.               00642000
021501 FF                           792 ENABLE     DC    X'FF'             ALLOW INTERUPTS.                   00643000
                              00028 793 LENVMCP   EQU   X'28'             LENGTH OF A VMCF PARM BLOCK.       00644000
021502 00000000                     794 DMLEXECB   DC    AL4(0)            ECB FOR THE DML EXECUTOR.          00645000

021506                              796 CDBSVMCM   DS    XL(LENVMCP)       VMCF INTERUPT INFO.                00647000 793

021530                              798            DS    0D                                                   00649000
021530                              799 AUTHPARM   DS    0XL(LENVMCP)      AUTHORIZE MACHINE TO OS/VMCF.      00650000 793
021530 00                           800            DC    X'00'             FLAGS --                           00651000
021531 00                           801            DC    X'00'             RESERVED.                          00652000
021532 0000                         802            DC    AL2(VMCPAUTH)     AUTHORIZE REQUEST.                 00653000 1974
021534 0001                         803            DC    H'0001'           MESSAGE ID.                        00654000
021536 FF                           804            DC    X'FF'             DBMS PORT 255 :: THE PORT AUTHORITY. 00655000
021537 00                           805            DC    X'00'             USER PORT 0.                       00656000
021538 4040404040404040             806            DC    CL8' '            USER VMID.                         00657000
021540 0002143C00000004             807            DC    A(PA$ECB,L'PA$ECB) ADDR AND LEN OF PORT AUTH. ECB   00658000 776 776
021548 0002074000000000             808            DC    A(CDBSTOUT,0)     ADDR OF MY TIME OUT ROUTINE.       00659000 710
021550 C5E7E3C5D9D5C1D3             809            DC    CL8'EXTERNAL'     TELL CDBSVMCF THAT WE WANT         00660000
                                    810 *                                  NON- X'4001' EXTERNAL INTERUPTS.   00661000
                              00028 811 ATHPLEN   EQU   *-AUTHPARM        AUTHPARM LENGTH                    00662000 ?

021558                              813            DS    0D                                                   00664000
021558                              814 AUTHSPEC   DS    0XL(LENVMCP)      AUTHORIZE MACHINE TO OS/VMCF.      00665000 793
021558 80                           815            DC    AL1(VMCPAUTS)     FLAGS -- AUTH SPECIFIC             00666000 1970
021559 00                           816            DC    X'00'             RESERVED.                          00667000
02155A 0000                         817            DC    AL2(VMCPAUTH)     AUTHORIZE REQUEST.                 00668000 1974
02155C 0002                         818            DC    H'0002'           MESSAGE ID.                        00669000
02155E FF                           819            DC    X'FF'             DBMS PORT 255 :: THE PORT AUTHORITY. 00670000
02155F 00                           820            DC    X'00'             USER PORT 0.                       00671000
021560 4040404040404040             821            DC    CL8' '            USER VMID.                         00672000
021568 0000000000000004             822            DC    A(0,L'PORT$ECB)   PLACE FOR ADDR OF ECB AND ITS LEN. 00673000 1959
021570 0000000000000000             823            DC    A(0,0)            ADDR/LEN B NOT USED.               00674000
021578 0000000000000000             824            DC    XL8'00'           NOT USED.                          00675000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                           00028   825 ATHSLEN  EQU   *-AUTHSPEC          LENGTH OF AUTHSPEC PARM              00676000 ?


021580                             827          DS    0D                                                       00678000
021580                             828 PA$RECV  DS    0XL(LENVMCP)        RECEIVE REQUEST FOR A PORT.          00679000 793
021580 00                          829          DC    X'00'                                                    00680000
021581 00                          830          DC    X'00'               RESERVED.                            00681000
021582 0005                        831          DC    AL2(VMCPRECV)       RECV REQUEST.                        00682000 1979
021584 0003                        832          DC    H'0003'             MESSAGE ID.                          00683000
021586 FF                          833          DC    X'FF'               DBMS PORT 255 :: THE PORT AUTHORITY. 00684000
021587 00                          834          DC    X'00'               USER PORT 0.                         00685000
021588 4040404040404040            835          DC    CL8' '              USER VMID.                           00686000
021590 000215D000000008            836          DC    A(PORTRCB,L'PORTRCB)  ADDR & LEN OF PORT REQUEST BLOCK.  00687000 855 855
021598 0000000000000000            837          DC    A(0,0)              ADDR/LEN B NOT USED.                 00688000
0215A0 0000000000000000            838          DC    XL8'00'             USER DOUBLE WORD.                    00689000
                           00028   839 PARCLEN  EQU   *-PA$RECV           LENGTH OF PA$RECV REQUEST.           00690000 ?


0215A8                             841          DS    0D                                                       00692000
0215A8                             842 PA$REPLY DS    0XL(LENVMCP)        REPLY TO PORT REQUEST.               00693000 793
0215A8 00                          843          DC    X'00'                                                    00694000
0215A9 00                          844          DC    X'00'               RESERVED.                            00695000
0215AA 0007                        845          DC    AL2(VMCPREPL)       REPLY REQUEST.                       00696000 1981
0215AC 0004                        846          DC    H'0004'             MESSAGE ID.                          00697000
0215AE FF                          847          DC    X'FF'               DBMS PORT 255 :: THE PORT AUTHORITY. 00698000
0215AF 00                          848          DC    X'00'               USER PORT 0.                         00699000
0215B0 4040404040404040            849          DC    CL8' '              USER VMID.                           00700000
0215B8 000215D000000008            850          DC    A(PORTRCB,L'PORTRCB)  ADDR & LEN OF PORT REQUEST BLOCK.  00701000 855 855
0215C0 0000000000000000            851          DC    A(0,0)              ADDR/LEN B NOT USED.                 00702000
0215C8 0000000000000000            852          DC    XL8'00'             USER DOUBLE WORD.                    00703000
                           00028   853 PARLLEN  EQU   *-PA$REPLY          LENGTH OF PA$REPLY LENGTH            00704000 ?


0215D0                             855 PORTRCB  DS    0CL8                PORT REQUEST CONTROL BLOCK.          00706000
0215D0 FFFFFFFF                    856          DC    AL4(-1)             SIZE OF CIAM_CB.                     00707000
0215D4 FFFFFFFB                    857          DC    AL4(-5)             RETURNED PORT ID.                    00708000


0215D8                             859          DS    0D                                                       00710000
0215D8                             860 UNSTKCB  DS    0XL(LENVMCP)        UN-STACK CONTROL BLOCK               00711000 793
0215D8 00                          861          DC    X'00'               FLAGS                                00712000
0215D9 00                          862          DC    X'00'               RESERVED                             00713000
0215DA 001F                        863          DC    AL2(VMCPUNST)       UN-STACK REQUEST                     00714000 1986
0215DC 0000                        864          DC    H'0000'             MESSAGE ID                           00715000
0215DE 00                          865          DC    X'00'               SOURCE TASK ID                       00716000
0215DF 00                          866          DC    X'00'               SINK TASK ID                         00717000
0215E0 4040404040404040            867          DC    CL8' '              SINK TASK VMID                       00718000
0215E8 0002150600000028            868          DC    A(CDBSVMCM,L'CDBSVMCM) ADDR/LEN A                        00719000 796 796
0215F0 0000000000000000            869          DC    A(0,0)              ADDR/LEN B NOT USED.                 00720000
0215F8 0000000000000000            870          DC    XL8'00'             USER DBL- WORD                       00721000
                           00028   871 UNSTKLEN EQU   *-UNSTKCB           LEN OF UNSTACK CONTROL BLOCK         00722000 ?


021600                             873          DS    0D                                                       00724000
021600                             874 RJCTCB   DS    0XL(LENVMCP)        REJECT CONTROL BLOCK                 00725000 793
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

021600 00                          875           DC    X'00'          FLAGS                                00726000
021601 00                          876           DC    X'00'          RESERVED                             00727000
021602 000B                        877           DC    AL2(VMCPRJCT)  REJECT REQUEST                       00728000 1985
021604 0000                        878           DC    H'0000'        MESSAGE ID                           00729000
021606 00                          879           DC    X'00'          SOURCE TASK ID                       00730000
021607 00                          880           DC    X'00'          SINK TASK ID                         00731000
021608 4040404040404040            881           DC    CL8' '         SINK TASK VMID                       00732000
021610 0000000000000000            882           DC    A(0,0)         ADDR/LEN A                           00733000
021618 0000000000000000            883           DC    A(0,0)         ADDR/LEN B NOT USED.                 00734000
021620 5FE2C5D5C4D9C5C3            884           DC    CL8'¬SENDREC'  USER DBL- WORD(IE, NOT SEND/RECV)    00735000
                          00028    885 RJCTLEN   EQU   *-RJCTCB       LEN OF REJECT CONTROL BLOCK          00736000 ?

021628                             887           DS    0D                                                  00738000
021628                             888 UNAUTHCB  DS    0XL(LENVMCP)   UN-AUTHORIZE CONTROL BLOCK.        00739000 793
021628 00                          889           DC    X'00'          FLAGS                                00740000
021629 00                          890           DC    X'00'          RESERVED                             00741000
02162A 0001                        891           DC    AL2(VMCPUAUT)  REJECT REQUEST                       00742000 1975
02162C 0000                        892           DC    H'0000'        MESSAGE ID                           00743000
02162E 00                          893           DC    X'00'          SOURCE TASK ID                       00744000
02162F 00                          894           DC    X'00'          SINK TASK ID                         00745000
021630 4040404040404040            895           DC    CL8' '         SINK TASK VMID                       00746000
021638 0000000000000000            896           DC    A(0,0)         ADDR/LEN A                           00747000
021640 0000000000000000            897           DC    A(0,0)         ADDR/LEN B NOT USED.                 00748000
021648 E4D5C1E4E3C84040            898           DC    CL8'UNAUTH  '  USER DBL- WORD(IE, UN-AUTHING)       00749000
                          00028    899 UNAULEN   EQU   *-UNAUTHCB     LEN OF UNAUTH CONTROL BLOCK          00750000 ?

021650                             901           DS    0D                                                  00752000
021650                             902 RECVCB    DS    0XL(LENVMCP)   RECEIVE CONTROL BLOCK              00753000 793
021650 00                          903           DC    X'00'          FLAGS                                00754000
021651 00                          904           DC    X'00'          RESERVED                             00755000
021652 0005                        905           DC    AL2(VMCPRECV)  RECEIVE REQUEST                      00756000 1979
021654 0000                        906           DC    H'0000'        MESSAGE ID                           00757000
021656 00                          907           DC    X'00'          SOURCE TASK ID                       00758000
021657 00                          908           DC    X'00'          SINK TASK ID                         00759000
021658 4040404040404040            909           DC    CL8' '         SINK TASK VMID                       00760000
021660 0000000000000000            910           DC    A(0,0)         ADDR/LEN A                           00761000
021668 0000000000000000            911           DC    A(0,0)         ADDR/LEN B NOT USED.                 00762000
021670 0000000000000000            912           DC    XL8'00'        USER DBL- WORD                       00763000
                          00028    913 RECVLEN   EQU   *-RECVCB       LEN OF RECEIVE CONTROL BLOCK         00764000 ?

021678                             915           DS    0D                                                  00766000
021678                             916 REPLCB    DS    0XL(LENVMCP)   REPLY CONTROL BLOCK               00767000 793
021678 00                          917           DC    X'00'          FLAGS                                00768000
021679 00                          918           DC    X'00'          RESERVED                             00769000
02167A 0007                        919           DC    AL2(VMCPREPL)  REPLY REQUEST                       00770000 1981
02167C 0000                        920           DC    H'0000'        MESSAGE ID                           00771000
02167E 00                          921           DC    X'00'          SOURCE TASK ID                       00772000
02167F 00                          922           DC    X'00'          SINK TASK ID                         00773000
021680 4040404040404040            923           DC    CL8' '         SINK TASK VMID                       00774000
021688 0000000000000000            924           DC    A(0,0)         ADDR/LEN A                           00775000
021690 0000000000000000            925           DC    A(0,0)         ADDR/LEN B NOT USED.                 00776000
021698 0000000000000000            926           DC    XL8'00'        USER DBL- WORD                       00777000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                            00028   927 REPLLEN  EQU   *-REPLCB          LEN OF RECEIVE CONTROL BLOCK          00778000 ?


0216A0 00000002                     929 FINISH   DC    F'02'             FINISH FUNCTION CODE.                 00780000
0216A4 00000043                     930 ROLLBACK DC    F'67'             ROLLBACK FUNCTION CODE.               00781000
0216A8 FFFFFFFF                     931 VMCFERR1 DC    F'-1'             VMCF ERROR (RECEIVE) DURING PORT REQ  00782000
0216AC FFFFFFFE                     932 VMCFERR2 DC    F'-2'             VMCF ERROR (AUTHS) DURING PORT REQ.   00783000
0216B0 FFFFFFFD                     933 VMCFERR3 DC    F'-3'             VMCF ERROR (REPLY) DURING PORT REQ.   00784000
0216B4 FFFFFFFC                     934 NOPORTCD DC    F'-4'             NO PORT WAS AVAILABLE FOR PORT REQ    00785000
0216B8 FFFFFFFB                     935 NOSTORCD DC    F'-5'             NO STORAGE WAS AVAIL. FOR PORT REQ    00786000
0216BC 00000A8C                     936 CDBSTOL  DC    AL4(60*45)        45 MINUTE IDLE TIMEOUT LIMIT.         00787000
                                    937         BITEQU                  DEFINE BITS                           00788000
                            00080   938+BIT0     EQU   B'10000000'       X'80'  128                            00003000
                            00040   939+BIT1     EQU   B'01000000'       X'40'  64                             00004000
                            00020   940+BIT2     EQU   B'00100000'       X'20'  32                             00005000
                            00010   941+BIT3     EQU   B'00010000'       X'10'  16                             00006000
                            00008   942+BIT4     EQU   B'00001000'       X'08'  8                              00007000
                            00004   943+BIT5     EQU   B'00000100'       X'04'  4                              00008000
                            00002   944+BIT6     EQU   B'00000010'       X'02'  2                              00009000
                            00001   945+BIT7     EQU   B'00000001'       X'01'  1                              00010000
0216C0 00                           946 CDBSFLG1 DC    X'00'             MISC. FLAGS.                          00789000
                            00080   947 SYSINIT  EQU   BIT0              BEEN THRU CDBSINIT                    00790000
                            00040   948 SYSTOUT  EQU   BIT1              BEEN THRU CDBSTOUT                    00791000
                            00020   949 SYSTERM  EQU   BIT2              BEEN THRU CDBSTERM                    00792000
                            00010   950 DUMPSTOR EQU   BIT3              EXTERNAL INTERUPT X'D1' IN PROCESS.   00793000
                            00008   951 PA$ERR   EQU   BIT4              ERROR HAS OCCURED IN PORT AUTH. REQ.  00794000
                            00004   952 FORCEINI EQU   BIT5              FORCED RE-INIT IN PROCESS.            00795000
                            00002   953 LOGOFF   EQU   BIT6              FORCED LOGOFF IN PROCESS.             00796000
                            00001   954 UNUSED1  EQU   BIT7              UNUSED                                00797000 ?
0216C8                              955         DS    0D                                                      00798000
0216C8 FFFFFFFFFFFFFFFF             956 FOREVER  DC    8X'FF'            EFFECTIVE FOREVER IN TIMEOUT.         00799000
0216D0                              957 FREEFRET DS    D,D               R15,R0,R1, <SPARE> FROM DMSFREE/FRET  00800000
0216E0                              958 SAVETOD  DS    D                 OLD TIME OF DAY.                      00801000
0216E8                              959 TMPTOD   DS    D                 NEW TIME OF DAY.                      00802000
0216F0                              960 SAVECR0  DS    D                 WORK AREA FOR CONTROL REG 0           00803000
0216F8                              961 RESTCR0  DS    D                 VALUE TO RESTORE CONTROL REG0 TO.     00804000
                            21700   962 CDBS$DAE EQU   *                                                     00805000
                            00EB8   963 CDBS$DAL EQU   *-CDBS$DA         DATA AREA LENGTH                      00806000 ?
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                     966 MSG001   LINEDIT TEXT='CDBS$I001I CDBS INITILIZATION IN PROCESS',      *00810000
                                           DISP=ERRMSG,RENT=NO                                                  00811000
021700                               967+MSG001   DS    0H                                                     00099000
021700 4510 B730       21730         968+         BAL   1,DMSA0065                                             00113000 973
021704 00C0                          969+         DC    AL1(0,192)              FLAG BYTES                     00115000
021706 28                            970+DMST0065 DC    AL1(DMSL0065)           LENGTH OF MESSAGE TEXT         00144000 972
021707 C3C4C2E25BC9F0F0              971+         DC    C'CDBS$I001I CDBS INITILIZATION IN PROCESS'            00147000
                             00028   972+DMSL0065 EQU   *-DMST0065-1            TEXT LENGTH                    00150000
021730                               973+DMSA0065 DS    0H                                                     00152000
021730 0ACB                          974+         SVC   203                                                    00019000
021732 FFFA                          975+         DC    H'-6'                                                  00019000
021734 07FE                          976          BR    R14                 -> BACK TO CALLER.                 00812000

                                     978 ERR002   LINEDIT TEXT='CDBS$I002E ERROR .... FROM SVC 211 DURING AUTH O*00814000
                                           F PORT AUTHORITY',                                                   *00815000
                                           DISP=ERRMSG,SUB=(DEC,(R15))                                          00816000
021736                               979+ERR002   DS    0H                                                     00099000
021736 4510 B77E       2177E         980+         BAL   1,DMSA0092                                             00113000 986
02173A 10C0                          981+         DC    AL1(16,192)             FLAG BYTES                     00115000
02173C 81                            982+         DC    AL1(DMSC0092)                                          00019000 987
02173D 40                            983+DMST0092 DC    AL1(DMSL0092)           LENGTH OF MESSAGE TEXT         00144000 985
02173E C3C4C2E25BC9F0F0              984+         DC    C'CDBS$I002E ERROR .... FROM SVC 211 DURING AUTH OF PORTK00147000
021746 F2C540C5D9D9D6D9                +          AUTHORITY'
                             00040   985+DMSL0092 EQU   *-DMST0092-1            TEXT LENGTH                    00150000
02177E                               986+DMSA0092 DS    0H                                                     00152000
                             00081   987+DMSC0092 EQU   129                     SUBSTITUTION CODE              00061000
02177E 180F                          988+         LR    0,R15                                                  00017000
021780 0ACB                          989+         SVC   203                                                    00019000
021782 FFFA                          990+         DC    H'-6'                                                  00019000
021784 47F0 C692       22692         991          B     DUMPIT              -> GO DUMP STORAGE                 00817000 1657

                                     993 MSG003   LINEDIT TEXT='CDBS$I003I CDBS INITILIZATION COMPLETE',      *00819000
                                           DISP=ERRMSG,RENT=NO                                                  00820000
021788                               994+MSG003   DS    0H                                                     00099000
021788 4510 B7B6       217B6         995+         BAL   1,DMSA0124                                             00113000 1000
02178C 00C0                          996+         DC    AL1(0,192)              FLAG BYTES                     00115000
02178E 26                            997+DMST0124 DC    AL1(DMSL0124)           LENGTH OF MESSAGE TEXT         00144000 999
02178F C3C4C2E25BC9F0F0              998+         DC    C'CDBS$I003I CDBS INITILIZATION COMPLETE'              00147000
                             00026   999+DMSL0124 EQU   *-DMST0124-1            TEXT LENGTH                    00150000
0217B6                              1000+DMSA0124 DS    0H                                                     00152000
0217B6 0ACB                         1001+         SVC   203                                                    00019000
0217B8 FFFA                         1002+         DC    H'-6'                                                  00019000
0217BA 47F0 A224       20224        1003          B     DMLEXEC             -> TO DML EXECUTOR.                00821000 208

                             00000  1005          USING CDBSPORT,R5                                            00823000 1958
                             00000  1006          USING CIAMCB,R6                                              00824000 1876
                                    1007 MSG004   LINEDIT TEXT='CDBS$P004I CDBSPOST ENTERED FROM (........,...) *00825000
                                           REQUESTING PORT ... (......)',DISP=ERRMSG,RENT=NO,                   *00826000
                                           SUB=(CHAR8A,CCBUVMID,HEX4A,(CCBUPORT,1),HEX4A,(CCBDPORT,*00827000
                                           1),HEX,(R5))                                                         00828000
0217BE                              1008+MSG004   DS    0H                                                     00099000
0217BE 4510 B826       21826        1009+         BAL   1,DMSA0151                                             00113000 1015
0217C2 08C0                         1010+         DC    AL1(8,192)              FLAG BYTES                     00115000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

0217C4 0000000000000000                 1011+          DC    (4)XL5'00'                                        00019000
0217D8 4C                               1012+DMST0151  DC    AL1(DMSL0151)          LENGTH OF MESSAGE TEXT     00144000 1014
0217D9 C3C4C2E25BD7F0F0                 1013+          DC    C'CDBS$P004I CDBSPOST ENTERED FROM (.........,...) REQUESX00147000
0217E1 F4C940C3C4C2E2D7                    +                  TING PORT ... (......)'
                              0004C     1014+DMSL0151  EQU   *-DMST0151-1            TEXT LENGTH                00150000
021826                                  1015+DMSA0151  DS    0H                                                00152000
021826 9244 1002       00002            1016+          MVI   2(1),68                SET OPTION CODE            00093000
02182A 41F0 6076       00076            1017+          LA    15,CCBUVMID                                     00017000 1903
02182E BEF7 1003       00003            1018+          STCM  15,B'0111',3(1)                                 00015000
021832 9263 1006       00006            1019+          MVI   6(1),99                SET OPTION CODE            00093000
021836 9201 1007       00007            1020+          MVI   7(1),1                                            00017000
02183A 41F0 607E       0007E            1021+          LA    15,CCBUPORT                                     00017000 1904
02183E BEF7 1008       00008            1022+          STCM  15,B'0111',8(1)                                 00015000
021842 9263 100B       0000B            1023+          MVI   11(1),99               SET OPTION CODE            00093000
021846 9201 100C       0000C            1024+          MVI   12(1),1                                           00017000
02184A 41F0 6087       00087            1025+          LA    15,CCBDPORT                                     00017000 1906
02184E BEF7 100D       0000D            1026+          STCM  15,B'0111',13(1)                                00015000
021852 9280 1010       00010            1027+          MVI   16(1),128              SET OPTION CODE            00093000
021856 BE5F 1011       00011            1028+          STCM  R5,B'1111',17(1)                                00015000
02185A 0ACB                             1029+          SVC   203                                             00019000
02185C FFFA                             1030+          DC    H'-6'                                           00019000
                                        1031           DROP  R5,R6                                           00829000
02185E 07FE                             1032           BR    R14                -> BACK TO CALLER            00830000

                                        1034 ERR005    LINEDIT TEXT='CDBS$P005E LAST RUNABLE PORT ADDRESS INVALID (..*00832000
                                                       ......)',DISP=ERRMSG,RENT=NO,SUB=(HEX,(R3))                00833000
021860                                  1035+ERR005    DS    0H                                                00099000
021860 4510 B8A0       218A0            1036+          BAL   1,DMSA0214                                        00113000 1042
021864 10C0                             1037+          DC    AL1(16,192)            FLAG BYTES                 00115000
021866 80                               1038+          DC    AL1(DMSC0214)                                     00019000 1043
021867 37                               1039+DMST0214  DC    AL1(DMSL0214)          LENGTH OF MESSAGE TEXT     00144000 1041
021868 C3C4C2E25BD7F0F0                 1040+          DC    C'CDBS$P005E LAST RUNABLE PORT ADDRESS INVALID (........X00147000
021870 F5C540D3C1E2E340                    +                  )'
                              00037     1041+DMSL0214  EQU   *-DMST0214-1            TEXT LENGTH                00150000
0218A0                                  1042+DMSA0214  DS    0H                                                00152000
                              00080     1043+DMSC0214  EQU   128                    SUBSTITUTION CODE          00001000
0218A0 1803                             1044+          LR    0,R3                                              00017000
0218A2 0ACB                             1045+          SVC   203                                             00019000
0218A4 FFFA                             1046+          DC    H'-6'                                           00019000
0218A6 47F0 C692       22692            1047           B     DUMPIT               -> DUMP STORAGE              00834000 1657

                                        1049 ERR006    LINEDIT TEXT='CDBS$P006E FIRST RUNABLE PORT ADDRESS INVALID (.*00836000
                                                       .......)',DISP=ERRMSG,RENT=NO,SUB=(HEX,(R3))               00837000
0218AA                                  1050+ERR006    DS    0H                                                00099000
0218AA 4510 B8EA       218EA            1051+          BAL   1,DMSA0246                                        00113000 1057
0218AE 10C0                             1052+          DC    AL1(16,192)            FLAG BYTES                 00115000
0218B0 80                               1053+          DC    AL1(DMSC0246)                                     00019000 1058
0218B1 38                               1054+DMST0246  DC    AL1(DMSL0246)          LENGTH OF MESSAGE TEXT     00144000 1056
0218B2 C3C4C2E25BD7F0F0                 1055+          DC    C'CDBS$P006E FIRST RUNABLE PORT ADDRESS INVALID (.......X00147000
0218BA F6C540C6C9D9E2E3                    +                  .)'
                              00038     1056+DMSL0246  EQU   *-DMST0246-1            TEXT LENGTH                00150000
0218EA                                  1057+DMSA0246  DS    0H                                                00152000
                              00080     1058+DMSC0246  EQU   128                    SUBSTITUTION CODE          00001000
0218EA 1803                             1059+          LR    0,R3                                              00017000
0218EC 0ACB                             1060+          SVC   203                                             00019000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.35 10/25/81

0218EE FFFA                        1061+          DC    H'-6'                                                  00019000
0218F0 47F0 C692       22692       1062           B     DUMPIT              -> DUMP STORAGE                    00838000 1657

                                   1064 ERR007    LINEDIT TEXT='CDBS$D007E ERROR .... FROM SVC 211 DURING UNSTAC*00840000
                                                 K',DISP=ERRMSG,SUB=(DEC,(R15))                                 00841000
0218F4                             1065+ERR007    DS    0H                                                       00099000
0218F4 4510 B92E       2192E       1066+          BAL   1,DMSA0278                                               00113000 1072
0218F8 10C0                        1067+          DC    AL1(16,192)           FLAG BYTES                       00115000
0218FA 81                          1068+          DC    AL1(DMSC0278)                                          00019000 1073
0218FB 31                          1069+DMST0278  DC    AL1(DMSL0278)         LENGTH OF MESSAGE TEXT           00144000 1071
0218FC C3C4C2E25BC4F0F0            1070+          DC    C'CDBS$D007E ERROR .... FROM SVC 211 DURING UNSTACK'   00147000
                          00031    1071+DMSL0278  EQU   *-DMST0278-1          TEXT LENGTH                      00150000
02192E                             1072+DMSA0278  DS    0H                                                       00152000
                          00081    1073+DMSC0278  EQU   129                   SUBSTITUTION CODE                00061000
02192E 180F                        1074+          LR    0,R15                                                    00017000
021930 0ACB                        1075+          SVC   203                                                      00019000
021932 FFFA                        1076+          DC    H'-6'                                                    00019000
021934 47F0 A224       20224       1077           B     DMLEXEC             -> GO TRY NEXT REQUEST.            00842000 208

                                   1079 ERR008    LINEDIT TEXT='CDBS$D008E ERROR .... FROM SVC 211 DURING RECEIV*00844000
                                                 E',DISP=ERRMSG,SUB=(DEC,(R15))                                 00845000
021938                             1080+ERR008    DS    0H                                                       00099000
021938 4510 B972       21972       1081+          BAL   1,DMSA0310                                               00113000 1087
02193C 10C0                        1082+          DC    AL1(16,192)           FLAG BYTES                       00115000
02193E 81                          1083+          DC    AL1(DMSC0310)                                          00019000 1088
02193F 31                          1084+DMST0310  DC    AL1(DMSL0310)         LENGTH OF MESSAGE TEXT           00144000 1086
021940 C3C4C2E25BC4F0F0            1085+          DC    C'CDBS$D008E ERROR .... FROM SVC 211 DURING RECEIVE'   00147000
                          00031    1086+DMSL0310  EQU   *-DMST0310-1          TEXT LENGTH                      00150000
021972                             1087+DMSA0310  DS    0H                                                       00152000
                          00081    1088+DMSC0310  EQU   129                   SUBSTITUTION CODE                00061000
021972 180F                        1089+          LR    0,R15                                                    00017000
021974 0ACB                        1090+          SVC   203                                                      00019000
021976 FFFA                        1091+          DC    H'-6'                                                    00019000
021978 47F0 A224       20224       1092           B     DMLEXEC             -> GO TRY NEXT REQUEST.            00846000 208

                                   1094 ERR009    LINEDIT TEXT='CDBS$D009E ERROR .... FROM SVC 211 DURING REPLY'*00848000
                                                 ,DISP=ERRMSG,SUB=(DEC,(R15))                                   00849000
02197C                             1095+ERR009    DS    0H                                                       00099000
02197C 4510 B9B4       219B4       1096+          BAL   1,DMSA0342                                               00113000 1102
021980 10C0                        1097+          DC    AL1(16,192)           FLAG BYTES                       00115000
021982 81                          1098+          DC    AL1(DMSC0342)                                          00019000 1103
021983 2F                          1099+DMST0342  DC    AL1(DMSL0342)         LENGTH OF MESSAGE TEXT           00144000 1101
021984 C3C4C2E25BC4F0F0            1100+          DC    C'CDBS$D009E ERROR .... FROM SVC 211 DURING REPLY'     00147000
                          0002F    1101+DMSL0342  EQU   *-DMST0342-1          TEXT LENGTH                      00150000
0219B4                             1102+DMSA0342  DS    0H                                                       00152000
                          00081    1103+DMSC0342  EQU   129                   SUBSTITUTION CODE                00061000
0219B4 180F                        1104+          LR    0,R15                                                    00017000
0219B6 0ACB                        1105+          SVC   203                                                      00019000
0219B8 FFFA                        1106+          DC    H'-6'                                                    00019000
0219BA 47F0 A224       20224       1107           B     DMLEXEC             -> GO TRY NEXT REQUEST.            00850000 208

                                   1109 MSG010   'LINEDIT TEXT='CDBS$D010I ENTERING WAIT STATE',DISP=ERRMSG,    *00852000
                                                 RENT=NO                                                        00853000
0219BE                             1110+MSG010    DS    0H                                                       00099000
0219BE 4510 B9E4       219E4       1111+          BAL   1,DMSA0374                                               00113000 1116
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

0219C2 00C0                       1112+          DC    AL1(0,192)              FLAG BYTES                      00115000
0219C4 1E                         1113+DMST0374  DC    AL1(DMSL0374)           LENGTH OF MESSAGE TEXT          00144000 1115
0219C5 C3C4C2E25BC4F0F1           1114+          DC    C'CDBS$D010I ENTERING WAIT STATE'                       00147000
                            0001E 1115+DMSL0374  EQU   *-DMST0374-1            TEXT LENGTH                     00150000
0219E4                            1116+DMSA0374  DS    0H                                                      00152000
0219E4 0ACB                       1117+          SVC   203                                                     00019000
0219E6 FFFA                       1118+          DC    H'-6'                                                   00019000
0219E8 07FE                       1119           BR    R14                 -> RETURN TO CALLER                 00854000

0219EA                            1121 ERR011    DS    0H                                                      00856000
0219EA 9608 B6C0       216C0      1122           OI    CDBSFLG1,PA$ERR     NOTE ERROR IN PORT REQUEST.         00857000 946 951
                                  1123           LINEDIT TEXT='CDBS$P011E ERROR .... FROM SVC 211 DURING RECEIV*00858000
                                                 E OF PORT REQUEST',DISP=ERRMSG,                               *00859000
                                                 SUB=(DEC,(R15))                                               00860000
0219EE 4510 BA38       21A38      1124+          BAL   1,DMSA0401                                              00113000
0219F2 10C0                       1125+          DC    AL1(16,192)             FLAG BYTES                      00115000
0219F4 81                         1126+          DC    AL1(DMSC0401)                                           00019000 1131
0219F5 41                         1127+DMST0401  DC    AL1(DMSL0401)           LENGTH OF MESSAGE TEXT          00144000 1129
0219F6 C3C4C2E25BD7F0F1           1128+          DC    C'CDBS$P011E ERROR .... FROM SVC 211 DURING RECEIVE OF PX00147000
0219FE F1C540C5D9D9D6D9              +           ORT REQUEST'
                            00041 1129+DMSL0401  EQU   *-DMST0401-1            TEXT LENGTH                     00150000
021A38                            1130+DMSA0401  DS    0H                                                      00152000
                            00081 1131+DMSC0401  EQU   129                     SUBSTITUTION CODE               00061000
021A38 180F                       1132+          LR    0,R15                                                   00017000
021A3A 0ACB                       1133+          SVC   203                                                     00019000
021A3C FFFA                       1134+          DC    H'-6'                                                   00019000
021A3E D203 B5D4 B6A8 215D4 216A8 1135           MVC   PORTRCB+4(4),VMCFERR1  FLAG AS VMCF ERROR               00861000 855 931
021A44 47F0 A47C       2047C      1136           B     REPLYPA               -> SEND BACK THE BAD NEWS.          00862000 468

                            00000 1138           USING VMCPARM,R9                                              00864000 1965
021A48                            1139 ERR012    DS    0H                                                      00865000
021A48 1891                       1140           LR    R9,R1                 GET VMCPARM ADDRESS IN A SAVE REG.  00866000
021A4A 8000 B501       21501      1141           SSM   ENABLE                ALLOW INTERUPTS                     00867000 792
021A4E 9608 B6C0       216C0      1142           OI    CDBSFLG1,PA$ERR       NOTE ERROR IN PORT REQUEST.         00868000 946 951
                                  1143           LINEDIT TEXT='CDBS$P012E NO PORTS AVAILABLE FOR PORT REQUEST F*00869000
                                                 ROM (.........,...)',DISP=ERRMSG,RENT=NO,                     *00870000
                                                 SUB=(CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1))                      00871000
021A52 4510 BAA6       21AA6      1144+          BAL   1,DMSA0433                                              00113000
021A56 08C0                       1145+          DC    AL1(8,192)              FLAG BYTES                      00115000
021A58 0000000000000000           1146+          DC    (2)XL5'00'                                              00019000
021A62 42                         1147+DMST0433  DC    AL1(DMSL0433)           LENGTH OF MESSAGE TEXT          00144000 1149
021A63 C3C4C2E25BD7F0F1           1148+          DC    C'CDBS$P012E NO PORTS AVAILABLE FOR PORT REQUEST FROM (.X00147000
021A6B F2C540D5D640D7D6              +           .....,...)'
                            00042 1149+DMSL0433  EQU   *-DMST0433-1            TEXT LENGTH                     00150000
021AA6                            1150+DMSA0433  DS    0H                                                      00152000
021AA6 9244 1002       00002      1151+          MVI   2(1),C8                 SET OPTION CODE                 00093000
021AAA 41F0 9008       00008      1152+          LA    15,VMCPUSER                                             00017000 1991
021AAE BEF7 1003       00003      1153+          STCM  15,B'0111',3(1)                                         00015000
021AB2 92E3 1006       00006      1154+          MVI   6(1),227                SET OPTION CODE                 00093000
021AB6 9201 1007       00007      1155+          MVI   7(1),1                                                  00017000
021ABA 41F0 9007       00007      1156+          LA    15,VMCPSNKT                                             00017000 1990
021ABE BEF7 1008       00008      1157+          STCM  15,B'0111',8(1)                                         00015000
021AC2 0ACB                       1158+          SVC   203                                                     00019000
021AC4 FFFA                       1159+          DC    H'-6'                                                   00019000
                                  1160           DROP  R9                                                      00872000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                        ASM 0201 20.35 10/25/81

021AC6 D203 B5D4 B6B4 215D4 216B4  1161          MVC   PORTRCB+4(4),NOPORTCD    FLAG AS NOPORT ERR                00873000 855 934
021ACC 47F0 A47C      2047C        1162          B     REPLYPA              -> SEND BACK THE BAD NEWS.           00874000 468

                              00000  1164          USING VMCPARM,R9                                               00876000 1965
021AD0                               1165 ERR013   DS    0H                                                       00877000
021AD0 1891                          1166          LR    R9,R1                GET VMCPARM ADDRESS IN A SAVE REG.  00878000
                                     1167          LINEDIT TEXT='CDBS$P013E INSUFFICENT MEMORY AVAILABLE TO ALLOC*00879000
                                                   ATE ..... BYTES FOR REQUEST FROM (.........,...)',     *00880000
                                                   DISP=ERRMSG,RENT=NO,                                   *00881000
                                                   SUB=(HEXA,PORTRCB,CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1))  00882000
021AD2 4510 BB4A      21B4A        1168+         BAL   1,DMSA0482                                               00113000
021AD6 08C0                          1169+         DC    AL1(8,192)                FLAG BYTES                   00115000
021AD8 0000000000000000              1170+         DC    (3)XL5'00'                                             00019000
021AE7 61                            1171+DMST0482 DC    AL1(DMSL0482)             LENGTH OF MESSAGE TEXT       00144000 1173
021AE8 C3C4C2E25BD7F0F1              1172+         DC    C'CDBS$P013E INSUFFICENT MEMORY AVAILABLE TO ALLOCATE ..X00147000
021AF0 F3C540C9D5E2E4C6                +                 ..... BYTES FOR REQUEST FROM (.........,...)'
                              00061  1173+DMSL0482 EQU   *-DMST0482-1        TEXT LENGTH                        00150000
021B4A                               1174+DMSA0482 DS    0H                                                     00152000
021B4A 9240 1002      00002          1175+         MVI   2(1),64             SET OPTION CODE                    00093000
021B4E 41F0 B5D0      215D0          1176+         LA    15,PORTRCB                                             00017000 855
021B52 BEF7 1003      00003          1177+         STCM  15,B'0111',3(1)                                        00015000
021B56 9244 1006      00006          1178+         MVI   6(1),68             SET OPTION CODE                    00093000
021B5A 41F0 9008      00008          1179+         LA    15,VMCPUSER                                            00017000 1991
021B5E BEF7 1007      00007          1180+         STCM  15,B'0111',7(1)                                        00015000
021B62 92E3 100A      0000A          1181+         MVI   10(1),227           SET OPTION CODE                    00093000
021B66 9201 100B      0000B          1182+         MVI   11(1),1                                                00017000
021B6A 41F0 9007      00007          1183+         LA    15,VMCPSNKT                                            00017000 1990
021B6E BEF7 100C      0000C          1184+         STCM  15,B'0111',12(1)                                       00015000
021B72 0ACB                          1185+         SVC   203                                                    00019000
021B74 FFFA                          1186+         DC    H'-6'                                                  00019000
                                     1187          DROP  R9                                                     00883000
                                     1188          LINEDIT TEXT='CDBS$P013E DMSFREE ARGS, R0= ........, R1= .....*00884000
                                                   ..., R15= ........',DISP=ERRMSG,RENT=NO,               *00885000
                                                   SUB=(HEXA,FREEFRET+4,HEXA,FREEFRET+8,HEXA,FREEFRET)    00886000
021B76 4510 BBCE      21BCE          1189+         BAL   1,DMSA0538                                               00113000
021B7A 08C0                          1190+         DC    AL1(8,192)                FLAG BYTES                   00115000
021B7C 0000000000000000              1191+         DC    (3)XL5'00'                                             00019000
021B8B 42                            1192+DMST0538 DC    AL1(DMSL0538)             LENGTH OF MESSAGE TEXT       00144000 1194
021B8C C3C4C2E25BD7F0F1              1193+         DC    C'CDBS$P013E DMSFREE ARGS, R0= ........, R1= ........, RX00147000
021B94 F3C540C4D4E2C6D9                +                 15= ........'
                              00042  1194+DMSL0538 EQU   *-DMST0538-1        TEXT LENGTH                        00150000
021BCE                               1195+DMSA0538 DS    0H                                                     00152000
021BCE 9240 1002      00002          1196+         MVI   2(1),64             SET OPTION CODE                    00093000
021BD2 41F0 B6D4      216D4          1197+         LA    15,FREEFRET+4                                          00017000 957
021BD6 BEF7 1003      00003          1198+         STCM  15,B'0111',3(1)                                        00015000
021BDA 9240 1006      00006          1199+         MVI   6(1),64             SET OPTION CODE                    00093000
021BDE 41F0 B6D8      216D8          1200+         LA    15,FREEFRET+8                                          00017000 957
021BE2 BEF7 1007      00007          1201+         STCM  15,B'0111',7(1)                                        00015000
021BE6 92C0 100A      0000A          1202+         MVI   10(1),192           SET OPTION CODE                    00093000
021BEA 41F0 B6D0      216D0          1203+         LA    15,FREEFRET                                            00017000 957
021BEE BEF7 100B      0000B          1204+         STCM  15,B'0111',11(1)                                       00015000
021BF2 0ACB                          1205+         SVC   203                                                    00019000
021BF4 FFFA                          1206+         DC    H'-6'                                                  00019000
021BF6 D203 B5D4 B6B8 215D4 216B8  1207          MVC   PORTRCB+4(4),NOSTORCD    FLAG AS NOSTOR ERR.           00887000 855 935
021BFC 47F0 A47C      2047C        1208          B     REPLYPA              -> WRITE HOME TO MAMA                00888000 468
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                               00000  1210          USING VMCPARM,R9                                                  00890000 1965
021C00                         00000  1211 ERR014   DS    0H                                                          00891000
021C00 1891                    00000  1212          LR    R9,R1              GET VMCPARM ADDRESS IN A SAVE REG.       00892000
021C02 50F0 B4E4       214E4   00004  1213          ST    R15,R15SAV         SAVE VALUE OF ERROR CODE.                00893000 783
021C06 9608 B6C0       216C0   00000  1214          OI    CDBSFLG1,PA$ERR    NOTE PORT AUTH REQUEST ERROR.            00894000 946 951
                               00000  1215          LINEDIT TEXT='CDBS$P014E ERROR .... FROM SVC 211 DURING AUTHOR*00895000
                                                          IZE SPECIFIC FOR (........,...) PORT ...',                *00896000
                                                          DISP=ERRMSG,RENT=NO,                                      *00897000
                                                          SUB=(DECA,R15SAV,CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1),      *00898000
                                                          HEX4A,(VMCPSRCT,1))                                       00899000
021C0A 4510 BC7E       21C7E   00000  1216+          BAL   1,DMSA0594                                                00113000
021C0E 08C0                    00002  1217+          DC    AL1(8,192)               FLAG BYTES                     00115000
021C10 0000000000000000        00004  1218+          DC    (4)XL5'00'                                              00019000
021C24 58                      00018  1219+DMST0594  DC    AL1(DMSL0594)            LENGTH OF MESSAGE TEXT         00144000 1221
021C25 C3C4C2E25BD7F0F1        00019  1220+          DC    C'CDBS$P014E ERROR .... FROM SVC 211 DURING AUTHORIZE SPE00147000
021C2D F4C540C5D9D9D6D9                   +                ECIFIC FOR (........,...) PORT ...'
                               00058  1221+DMSL0594  EQU   *-DMST0594-1              TEXT LENGTH                    00150000
021C7E                         00058  1222+DMSA0594  DS    0H                                                      00152000
021C7E 9241 1002       00002   00059  1223+          MVI   2(1),65                  SET OPTION CODE                00093000
021C82 41F0 B4E4       214E4   0005C  1224+          LA    15,R15SAV                                               00017000 783
021C86 BEF7 1003       00003   00060  1225+          STCM  15,B'0111',3(1)                                         00015000
021C8A 9244 1006       00006   00063  1226+          MVI   6(1),68                  SET OPTION CODE                00093000
021C8E 41F0 9008       00008   00067  1227+          LA    15,VMCPUSER                                             00017000 1991
021C92 BEF7 1007       00007   0006B  1228+          STCM  15,B'0111',7(1)                                         00015000
021C96 9263 100A       0000A   0006E  1229+          MVI   10(1),99                 SET OPTION CODE                00093000
021C9A 9201 100B       0000B   00072  1230+          MVI   11(1),1                                                 00017000
021C9E 41F0 9007       00007   00075  1231+          LA    15,VMCPSNKT                                             00017000 1990
021CA2 BEF7 100C       0000C   00079  1232+          STCM  15,B'0111',12(1)                                        00015000
021CA6 92E3 100F       0000F   0007E  1233+          MVI   15(1),227                SET OPTION CODE                00093000
021CAA 9201 1010       00010   00082  1234+          MVI   16(1),1                                                 00017000
021CAE 41F0 9006       00006   00085  1235+          LA    15,VMCPSRCT                                             00017000 1989
021CB2 BEF7 1011       00011   00089  1236+          STCM  15,B'0111',17(1)                                        00015000
021CB6 0ACB                    0008E  1237+          SVC   203                                                     00019000
021CB8 FFFA                    00090  1238+          DC    H'-6'                                                   00019000
                               00092  1239          DROP  R9                                                      00900000
021CBA D203 B5D4 B6AC  215D4   00092  1240          MVC   PORTRCB+4(4),VMCFERR2    FLAG AS VMCF ERROR.            00901000 855 932
021CC0 47F0 A47C       2047C   00096  1241          B     REPLYPA                  -> TELL USER OF BAD NEWS       00902000 468

                               00000  1243          USING VMCPARM,R9                                                  00904000 1965
021CC4                         00000  1244 ERR015   DS    0H                                                          00905000
021CC4 1891                    00000  1245          LR    R9,R1              GET VMCPARM ADDRESS IN A SAVE REG.       00906000
021CC6 50F0 B4E4       214E4   00004  1246          ST    R15,R15SAV         SAVE VALUE OF REG15.                     00907000 783
021CCA 9608 B6C0       216C0   00000  1247          OI    CDBSFLG1,PA$ERR    NOTE ERROR IN PORT REQUEST.              00908000 946 951
                               00000  1248          LINEDIT TEXT='CDBS$P015E ERROR .... FROM SVC 211 DURING REPLY *00909000
                                                          TO (........,...) FROM PORT ...',DISP=ERRMSG,RENT=NO,     *00910000
                                                          SUB=(DECA,R15SAV,CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1),HEX4*00911000
                                                          A,(VMCPSRCT,1))                                           00912000
021CCE 4510 BD38       21D38   00000  1249+          BAL   1,DMSA0657                                                00113000
021CD2 08C0                    00002  1250+          DC    AL1(8,192)               FLAG BYTES                     00115000
021CD4 0000000000000000        00004  1251+          DC    (4)XL5'00'                                              00019000
021CE8 4F                      00018  1252+DMST0657  DC    AL1(DMSL0657)            LENGTH OF MESSAGE TEXT         00144000 1254
021CE9 C3C4C2E25BD7F0F1        00019  1253+          DC    C'CDBS$P015E ERROR .... FROM SVC 211 DURING REPLY TO (..K00147000
021CF1 F5C540C5D9D9D6D9                   +                ........,...) FROM PORT ...'
                               0004F  1254+DMSL0657  EQU   *-DMST0657-1              TEXT LENGTH                    00150000
021D38                         0004F  1255+DMSA0657  DS    0H                                                      00152000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

021D38 9241 1002       00002        1256+          MVI   2(1),65                SET OPTION CODE                  00093000
021D3C 41F0 B4E4       214E4        1257+          LA    15,R15SAV                                               00017000 783
021D40 BEF7 1003       00003        1258+          STCM  15,B'0111',3(1)                                         00015000
021D44 9244 1006       00006        1259+          MVI   6(1),68                SET OPTION CODE                  00093000
021D48 41F0 9008       00008        1260+          LA    15,VMCPUSER                                             00017000 1991
021D4C BEF7 1007       00007        1261+          STCM  15,B'0111',7(1)                                         00015000
021D50 9263 100A       0000A        1262+          MVI   10(1),99               SET OPTION CODE                  00093000
021D54 9201 100B       0000B        1263+          MVI   11(1),1                                                 00017000
021D58 41F0 9007       00007        1264+          LA    15,VMCPSNKT                                             00017000 1990
021D5C BEF7 100C       0000C        1265+          STCM  15,B'0111',12(1)                                        00015000
021D60 92E3 100F       0000F        1266+          MVI   15(1),227              SET OPTION CODE                  00093000
021D64 9201 1010       00010        1267+          MVI   16(1),1                                                 00017000
021D68 41F0 9006       00006        1268+          LA    15,VMCPSRCT                                             00017000 1989
021D6C BEF7 1011       00011        1269+          STCM  15,B'0111',17(1)                                        00015000
021D70 0ACB                         1270+          SVC   203                                                     00019000
021D72 FFFA                         1271+          DC    H'-6'                                                   00019000
                                    1272           DROP  R9                                                      00913000
021D74 D203 B5D4 B6B0  215D4 216B0  1273           MVC   PORTRCB+4(4),VMCFERR3    FLAG AS REPLY ERROR.           00914000 855 933
021D7A 47F0 A4F0       204F0        1274           B     CHKPAECB          -> GO BACK TO CALLER.                 00915000 528

                             00000  1276           USING VMCPARM,R9                                              00917000 1965
021D7E                              1277 MSG016    DS    0H                                                      00918000
021D7E 1891                         1278           LR    R9,R1               GET VMCPARM ADDRESS IN A SAVE REG.  00919000
                                    1279           LINEDIT TEXT='CDBS$R016I USER (.........,...) RELEASING PORT ..*00920000
                                                         . DUE TO FINISH DML EXECUTION',DISP=ERRMSG,RENT=NO,     *00921000
                                                         SUB=(CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1),HEX4A,(VMCPSRCT,*00922000
                                                         1))                                                     00923000
021D80 4510 BDE4       21DE4        1280+          BAL   1,DMSA0720                                              00113000
021D84 08C0                         1281+          DC    AL1(8,192)               FLAG BYTES                   00115000
021D86 0000000000000000             1282+          DC    (3)XL5'00'                                            00019000
021D95 4D                           1283+DMST0720  DC    AL1(DMSL0720)            LENGTH OF MESSAGE TEXT       00144000 1285
021D96 C3C4C2E25BD9F0F1             1284+          DC    C'CDBS$R016I USER (.........,...) RELEASING PORT ... DUE X00147000
021D9E F6C940E4E2C5D940                +                 TO FINISH DML EXECUTION'
                             0004D  1285+DMSL0720  EQU   *-DMST0720-1               TEXT LENGTH                  00150000
021DE4                              1286+DMSA0720  DS    0H                                                      00152000
021DE4 9244 1002       00002        1287+          MVI   2(1),68                SET OPTION CODE                  00093000
021DE8 41F0 9008       00008        1288+          LA    15,VMCPUSER                                             00017000 1991
021DEC BEF7 1003       00003        1289+          STCM  15,B'0111',3(1)                                         00015000
021DF0 9263 1006       00006        1290+          MVI   6(1),99                SET OPTION CODE                  00093000
021DF4 9201 1007       00007        1291+          MVI   7(1),1                                                  00017000
021DF8 41F0 9007       00007        1292+          LA    15,VMCPSNKT                                             00017000 1990
021DFC BEF7 1008       00008        1293+          STCM  15,B'0111',8(1)                                         00015000
021E00 92E3 100B       0000B        1294+          MVI   11(1),227              SET OPTION CODE                  00093000
021E04 9201 100C       0000C        1295+          MVI   12(1),1                                                 00017000
021E08 41F0 9006       00006        1296+          LA    15,VMCPSRCT                                             00017000 1989
021E0C BEF7 100D       0000D        1297+          STCM  15,B'0111',13(1)                                        00015000
021E10 0ACB                         1298+          SVC   203                                                     00019000
021E12 FFFA                         1299+          DC    H'-6'                                                   00019000
                                    1300           DROP  R9                                                      00924000
021E14 47F0 A504       20504        1301           B     REMPORT             -> NOW DO IT.                     00925000 537

                             00000  1303           USING VMCPARM,R9                                              00927000 1965
021E18                              1304 MSG017    DS    0H                                                      00928000
021E18 1891                         1305           LR    R9,R1               GET VMCPARM ADDRESS IN A SAVE REG.  00929000
                                    1306           LINEDIT TEXT='CDBS$R017I USER (.........,...) RELEASING PORT ..*00930000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                          . DUE TO ROLLBACK DML EXECUTION',DISP=ERRMSG,RENT=NO,   *00931000
                                          SUB=(CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1),HEX4A,(VMCPSRCT,*00932000
                                          1))                                                    00933000
021E1A 4510 BE80      21E80       1307+          BAL   1,DMSA077E                               00113000
021E1E 08C0                       1308+          DC    AL1(8,192)            FLAG BYTES        00115000
021E20 0000000000000000           1309+          DC    (3)XL5'00'                              00019000
021E2F 4F                         1310+DMST077E  DC    AL1(DMSL077E)         LENGTH OF MESSAGE TEXT 00144000 1312
021E30 C3C4C2E25BD9F0F1           1311+          DC    C'CDBS$R017I USER (.........,...) RELEASING PORT ... DUE X00147000
021E38 F7C940E4E2C5D940              +           TO ROLLBACK DML EXECUTION'
                                  0004F 1312+DMSL077E  EQU   *-DMST077E-1             TEXT LENGTH       00150000
021E80                            1313+DMSA0776  DS    0H                                      00152000
021E80 9244 1002      00002       1314+          MVI   2(1),68               SET OPTION CODE   00093000
021E84 41F0 9008      00008       1315+          LA    15,VMCPUSER                             00017000 1991
021E88 BEF7 1003      00003       1316+          STCM  15,B'0111',3(1)                         00015000
021E8C 9263 1006      00006       1317+          MVI   6(1),99               SET OPTION CODE   00093000
021E90 9201 1007      00007       1318+          MVI   7(1),1                                  00017000
021E94 41F0 9007      00007       1319+          LA    15,VMCPSNKT                             00017000 1990
021E98 BEF7 1008      00008       1320+          STCM  15,B'0111',8(1)                         00015000
021E9C 92E3 100B      0000B       1321+          MVI   11(1),227             SET OPTION CODE   00093000
021EA0 9201 100C      0000C       1322+          MVI   12(1),1                                 00017000
021EA4 41F0 9006      00006       1323+          LA    15,VMCPSRCT                             00017000 1989
021EA8 BEF7 100D      0000D       1324+          STCM  15,B'0111',13(1)                        00015000
021EAC 0ACB                       1325+          SVC   203                                     00019000
021EAE FFFA                       1326+          DC    H'-6'                                   00019000
                                  1327           DROP  R9                                      00934000
021EB0 47F0 A504      20504       1328           B     REPORT          -> NOW DO IT.           00935000 537

                          00000   1330           USING VMCPARM,R9                              00937000 1965
021EB4                            1331 ERR018    DS    0H                                      00938000
021EB4 1891                       1332           LR    R9,R1           GET VMCPARM ADDRESS IN A SAVE REG. 00939000
021EB6 50F0 B4E4      214E4       1333           ST    R15,R15SAV      SAVE VALUE OF R15.      00940000 783
                                  1334           LINEDIT TEXT='CDBS$R018E ERROR ... FROM SVC 211 UNAUTHORIZING *00941000
                                                 USER (.........,...) FROM PORT ...',DISP=ERRMSG,RENT=NO, *00942000
                                                 SUB=(DECA,R15SAV,CHAR8A,VMCPUSER,HEX4A,(VMCPSNKT,1),HEX4*00943000
                                                 A,(VMCPSRCT,1))                               00944000
021EBA 4510 BF26      21F26       1335+          BAL   1,DMSA0832                              00113000
021EBE 08C0                       1336+          DC    AL1(8,192)            FLAG BYTES        00115000
021EC0 0000000000000000           1337+          DC    (4)XL5'00'                              00019000
021ED4 51                         1338+DMST0832  DC    AL1(DMSL0832)         LENGTH OF MESSAGE TEXT 00144000 1340
021ED5 C3C4C2E25BD9F0F1           1339+          DC    C'CDBS$R018E ERROR ... FROM SVC 211 UNAUTHORIZING USER (X00147000
021EDD F8C540C5D9D9D6D9              +           .........,...) FROM PORT ...'
                                  00051 1340+DMSL0832  EQU   *-DMST0832-1             TEXT LENGTH       00150000
021F26                            1341+DMSA0832  DS    0H                                      00152000
021F26 9241 1002      00002       1342+          MVI   2(1),65               SET OPTION CODE   00093000
021F2A 41F0 B4E4      214E4       1343+          LA    15,R15SAV                               00017000 783
021F2E BEF7 1003      00003       1344+          STCM  15,B'0111',3(1)                         00015000
021F32 9244 1006      00006       1345+          MVI   6(1),68               SET OPTION CODE   00093000
021F36 41F0 9008      00008       1346+          LA    15,VMCPUSER                             00017000 1991
021F3A BEF7 1007      00007       1347+          STCM  15,B'0111',7(1)                         00015000
021F3E 9263 100A      0000A       1348+          MVI   10(1),99              SET OPTION CODE   00093000
021F42 9201 100B      0000B       1349+          MVI   11(1),1                                 00017000
021F46 41F0 9007      00007       1350+          LA    15,VMCPSNKT                             00017000 1990
021F4A BEF7 100C      0000C       1351+          STCM  15,B'0111',12(1)                        00015000
021F4E 92E3 100F      0000F       1352+          MVI   15(1),227             SET OPTION CODE   00093000
021F52 9201 1010      00010       1353+          MVI   16(1),1                                 00017000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

021F56 41F0 9006       00006        1354+          LA    15,VMCPSRCT                                          00017000 1989
021F5A BEF7 1011       00011        1355+          STCM  15,B'0111',17(1)                                     00015000
021F5E 0ACB                         1356+          SVC   203                                                  00019000
021F60 FFFA                         1357+          DC    H'-6'                                                00019000
                                    1358           DROP  R9                                                   00945000
021F62 47F0 A522       20522        1359           B     FREEMEM            -> GO FREE THE MEMORY ANYWAY(?)   00946000 549

                                    1361 ERR019    LINEDIT TEXT='CDBS$R019E ERROR .... FROM DMSFRET, R0= .....*00948000
                                                         , R1= .....',                                         *00949000
                                                         DISP=ERRMSG,RENT=NO,SUB=(HEX,FREEFRET,HEXA,FREEFRET+4,*00950000
                                                         HEXA,FREEFRET+8)                                      00951000
021F66                              1362+ERR019    DS    0H                                                   00099000
021F66 4510 BFBA       21FBA        1363+          BAL   1,DMSA0895                                           00113000 1369
021F6A 08C0                         1364+          DC    AL1(8,192)                 FLAG BYTES              00115000
021F6C 0000000000000000             1365+          DC    (3)XL5'00'                                           00019000
021F7B 3E                           1366+DMST0895  DC    AL1(DMSL0895)              LENGTH OF MESSAGE TEXT  00144000 1368
021F7C C3C4C2E25BD9F0F1             1367+          DC    C'CDBS$R019E ERROR .... FROM DMSFRET, R0= ..... R1= X00147000
021F84 F9C540C5D9D9D6D9                +                '.....'
                          0003E     1368+DMSL0895  EQU   *-DMST0895-1                TEXT LENGTH             00150000
021FBA                              1369+DMSA0895  DS    0H                                                   00152000
021FBA 9200 1002       00002        1370+          MVI   2(1),0                     SET OPTION CODE         00093000
021FBE 41F0 B6D0       216D0        1371+          LA    15,FREEFRET                                          00017000 957
021FC2 BEFF 1003       00003        1372+          STCM  15,B'1111',3(1)                                      00015000
021FC6 9240 1007       00007        1373+          MVI   7(1),64                    SET OPTION CODE         00093000
021FCA 41F0 B6D4       216D4        1374+          LA    15,FREEFRET+4                                        00017000 957
021FCE BEF7 1008       00008        1375+          STCM  15,B'0111',8(1)                                      00015000
021FD2 92C0 100B       0000B        1376+          MVI   11(1),192                  SET OPTION CODE         00093000
021FD6 41F0 B6D8       216D8        1377+          LA    15,FREEFRET+8                                        00017000 957
021FDA BEF7 100C       0000C        1378+          STCM  15,B'0111',12(1)                                     00015000
021FDE 0ACB                         1379+          SVC   203                                                  00019000
021FE0 FFFA                         1380+          DC    H'-6'                                                00019000
021FE2 07FE                         1381           BR    R14                -> GO BACK TO CALLER.             00952000

                                    1383 MSG020    LINEDIT TEXT='CDBS$T020I CDBSTERM ENTERED ON ABEND',       *00954000
                                                         DISP=ERRMSG,RENT=NO                                   00955000
021FE4                              1384+MSG020    DS    0H                                                   00099000
021FE4 4510 C010       22010        1385+          BAL   1,DMSA0951                                           00113000 1390
021FE8 00C0                         1386+          DC    AL1(0,192)                 FLAG BYTES              00115000
021FEA 24                           1387+DMST0951  DC    AL1(DMSL0951)              LENGTH OF MESSAGE TEXT  00144000 1389
021FEB C3C4C2E25BE3F0F2             1388+          DC    C'CDBS$T020I CDBSTERM ENTERED ON ABEND'              00147000
                          00024     1389+DMSL0951  EQU   *-DMST0951-1                TEXT LENGTH             00150000
022010                              1390+DMSA0951  DS    0H                                                   00152000
022010 0ACB                         1391+          SVC   203                                                  00019000
022012 FFFA                         1392+          DC    H'-6'                                                00019000
022014 07FE                         1393           BR    R14                -> TO CALLER                      00956000

                                    1395 ERR021    LINEDIT TEXT='CDBS$T021E DBASE MACHINE HAS WAITED GREATER THAN*00958000
                                                         .... SECONDS FOR A DML REQUEST, DBASE MACHINE EXITING',*00959000
                                                         SUB=(DECA,CDBSTOL),DISP=ERRMSG,RENT=NO                00960000
022016                              1396+ERR021    DS    0H                                                   00099000
022016 4510 C084       22084        1397+          BAL   1,DMSA0978                                           00113000 1403
02201A 10C0                         1398+          DC    AL1(16,192)                FLAG BYTES              00115000
02201C C1                           1399+          DC    AL1(DMSC0978)                                        00019000 1404
02201D 66                           1400+DMST0978  DC    AL1(DMSL0978)              LENGTH OF MESSAGE TEXT  00144000 1402
02201E C3C4C2E25BE3F0F2             1401+          DC    C'CDBS$T021E DBASE MACHINE HAS WAITED GREATER THAN .... X00147000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

022026 F1C540C4C2C1E2C5                    +                SECONDS FOR A DML REQUEST, DBASE MACHINE EXITING'
                                    00066  1402+DMSL0978 EQU   *-DMST0978-1          TEXT LENGTH                    00150000
022084                                     1403+DMSA0978 DS    0H                                                  00152000
                                    000C1  1404+DMSC0978 EQU   193                   SUBSTITUTION CODE              00061000
022084 4100 B6BC       216BC               1405+          LA    0,CDBSTOL                                           00017000 936
022088 0ACB                                1406+          SVC   203                                                 00019000
02208A FFFA                                1407+          DC    H'-6'                                               00019000
02208C 47F0 C692       22692               1408           B     DUMPIT            -> DUMP STORAGE                   00061000 1657

                                    00000  1410           USING CIAMCB,R5                                           00063000 1876
022090                                     1411 MSG022    DS    0H                                                  00064000
                                           1412           LINEDIT TEXT='CDBS$T022I PORT ... FOR USER (.........,...) IS B*00065000
                                                 EING DE-ALLOCATED',DISP=ERRMSG,RENT=NO,                          *00066000
                                                 SUB=(HEX4A,(CCBDPORT,1),CHAR8A,(CCBUVMID,8),                     *00067000
                                                 HEX4A,(CCBUPORT,1))                                               00068000
022090 4510 C0E8       220E8               1413+          BAL   1,DMSA1010                                          00113000
022094 08C0                                1414+          DC    AL1(8,192)          FLAG BYTES                    00115000
022096 0000000000000000                    1415+          DC    (3)XL5'00'                                          00019000
0220A5 41                                  1416+DMST1010 DC    AL1(DMSL1010)       LENGTH OF MESSAGE TEXT        00144000 1418
0220A6 C3C4C2E25BE3F0F2                    1417+          DC    C'CDBS$T022I PORT ... FOR USER (.........,...) IS BEING DX00147000
0220AE F2C940D7D6D9E340                      +                E-ALLOCATED'
                                    00041  1418+DMSL1010 EQU   *-DMST1010-1          TEXT LENGTH                    00150000
0220E8                                     1419+DMSA1010 DS    0H                                                  00152000
0220E8 9263 1002       00002               1420+          MVI   2(1),99             SET OPTION CODE               00093000
0220EC 9201 1003       00003               1421+          MVI   3(1),1                                              00017000
0220F0 41F0 5087       00087               1422+          LA    15,CCBDPORT                                         00017000 190E
0220F4 BEF7 1004       00004               1423+          STCM  15,B'0111',4(1)                                     00015000
0220F8 9264 1007       00007               1424+          MVI   7(1),100            SET OPTION CODE               00093000
0220FC 9208 1008       00008               1425+          MVI   8(1),8                                              00017000
022100 41F0 5076       00076               1426+          LA    15,CCBUVMID                                         00017000 1903
022104 BEF7 1009       00009               1427+          STCM  15,B'0111',9(1)                                     00015000
022108 92E3 100C       0000C               1428+          MVI   12(1),227           SET OPTION CODE               00093000
02210C 9201 100D       0000D               1429+          MVI   13(1),1                                             00017000
022110 41F0 507E       0007E               1430+          LA    15,CCBUPORT                                         00017000 1904
022114 BEF7 100E       0000E               1431+          STCM  15,B'0111',14(1)                                    00015000
022118 0ACB                                1432+          SVC   203                                                 00019000
02211A FFFA                                1433+          DC    H'-6'                                               00019000

02211C D507 5076 C980  00076 22980         1435           CLC   CCBUVMID,=CL8' '    OK TO SEND A MSG TO??           00070000 1903
022122 07DE                                1436           BNHR  R14                 -> NO, JUST RETURN.             00071000
                                           1437           LINEDIT TEXT='MSG ........ CDBS$T022I PORT ... HAS BEEN DE-ALL*00072000
                                                 OCATED',DISP=CPCOMM,RENT=NO,                                     *00073000
                                                 SUB=(CHAR8A,CCBUVMID,HEX4A,(CCBDPORT,1))                          00074000
022124 4510 C16C       2216C               1438+          BAL   1,DMSA1066                                          00113000
022128 08C5                                1439+          DC    AL1(8,197)          FLAG BYTES                    00115000
02212A 0000000000000000                    1440+          DC    (2)XL5'00'                                          00019000
022134 36                                  1441+DMST1066 DC    AL1(DMSL1066)       LENGTH OF MESSAGE TEXT        00144000 1443
022135 D4E2C7404B4B4B4B                    1442+          DC    C'MSG ........ CDBS$T022I PORT ... HAS BEEN DE-ALLOCATEDX00147000
02213D 4B4B4B4B40C3C4C2                      +                '
                                    00036  1443+DMSL1066 EQU   *-DMST1066-1          TEXT LENGTH                    00150000
02216C                                     1444+DMSA1066 DS    0H                                                  00152000
02216C 9244 1002       00002               1445+          MVI   2(1),68             SET OPTION CODE               00093000
022170 41F0 5076       00076               1446+          LA    15,CCBUVMID                                         00017000 1903
022174 BEF7 1003       00003               1447+          STCM  15,B'0111',3(1)                                     00015000
022178 92E3 1006       00006               1448+          MVI   6(1),227            SET OPTION CODE               00093000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

02217C 9201 1007      00007        1449+          MVI   7(1),1                                                  00017000
022180 41F0 5087      00087        1450+          LA    15,CCBDPORT                                             00017000 1906
022184 BEF7 1008      00008        1451+          STCM  15,B'0111',8(1)                                         00015000
022188 0ACB                        1452+          SVC   203                                                     00019000
02218A FFFA                        1453+          DC    H'-6'                                                   00019000
                                   1454           DROP  R5                                                      00975000
02218C 07FE                        1455           BR    R14                  -> BACK TO CALLER.               00976000

                             00000 1457           USING CIAMCB,R8                                               00978000 1876
02218E                             1458 MSG023    DS    0H                                                      00979000
                                   1459           LINEDIT TEXT='CDBS$P0231 PORT ... ALLOCATED FOR (.....,...)*00980000
                                                        PORT_CB ..........................  PA_FLST ...... ', *00981000
                                                  DISP=ERRMSG,RENT=NO,                                        *00982000
                                                  SUB=(HEX4A,(CCBDPORT,1),CHAR8A,CCBUVMID,                    *00983000
                                                  HEX4A,(CCBDPORT,1),HEX4A,((R7),12),HEXA,PA$FLST)             00984000
02218E 4510 C214      22214        1460+          BAL   1,DMSA1115                                              00113000
022192 08C0                        1461+          DC    AL1(8,192)             FLAG BYTES                     00115000
022194 0000000000000000            1462+          DC    (5)XL5'00'                                            00019000
0221AD 65                          1463+DMST1115  DC    AL1(DMSL1115)          LENGTH OF MESSAGE TEXT         00144000 1465
0221AE C3C4C2E25BD7F0F2            1464+          DC    C'CDBS$P023I PORT ... ALLOCATED FOR (.....,...) PORT_X00147000
0221B6 F3C940D7D6D9E340                +          CB ..........................  PA_FLST ...... '
                             00065 1465+DMSL1115  EQU   *-DMST1115-1            TEXT LENGTH                    00150000
022214                             1466+DMSA1115  DS    0H                                                      00152000
022214 9263 1002      00002        1467+          MVI   2(1),99                SET OPTION CODE                  00093000
022218 9201 1003      00003        1468+          MVI   3(1),1                                                  00017000
02221C 41F0 8087      00087        1469+          LA    15,CCBDPORT                                             00017000 1906
022220 BEF7 1004      00004        1470+          STCM  15,B'0111',4(1)                                         00015000
022224 9244 1007      00007        1471+          MVI   7(1),68                SET OPTION CODE                  00093000
022228 41F0 8076      00076        1472+          LA    15,CCBUVMID                                             00017000 1903
02222C BEF7 1008      00008        1473+          STCM  15,B'0111',8(1)                                         00015000
022230 9263 100B      0000B        1474+          MVI   11(1),99               SET OPTION CODE                  00093000
022234 9201 100C      0000C        1475+          MVI   12(1),1                                                 00017000
022238 41F0 8087      00087        1476+          LA    15,CCBDPORT                                             00017000 1906
02223C BEF7 100D      0000D        1477+          STCM  15,B'0111',13(1)                                        00015000
022240 9263 1010      00010        1478+          MVI   16(1),99               SET OPTION CODE                  00093000
022244 920C 1011      00011        1479+          MVI   17(1),12                                                00017000
022248 BE77 1012      00012        1480+          STCM  R7,B'0111',18(1)                                        00015000
02224C 92C0 1015      00015        1481+          MVI   21(1),192              SET OPTION CODE                  00093000
022250 41F0 B448      21448        1482+          LA    15,PA$FLST                                              00017000 778
022254 BEF7 1016      00016        1483+          STCM  15,B'0111',22(1)                                        00015000
022258 0ACB                        1484+          SVC   203                                                     00019000
02225A FFFA                        1485+          DC    H'-6'                                                   00019000
                                   1486           DROP  R8                                                      00985000
02225C 47F0 A4F0      204F0        1487           B     CHKPAECB               -> TO CALLER                   00986000 528

                             00000 1489           USING  VMCMHDR,R4                                           00988000 2000
                                   1490 MSG024    LINEDIT TEXT='CDBS$D024I PORT ... EXECUTING DML ... FOR (.....*00989000 ?
                                                  ...,...) PORT_CB ..........................  ',             *00990000
                                                  DISP=ERRMSG,RENT=NO,                                        *00991000
                                                  SUB=(HEX4A,(VMCMSNKT,1),DECA,VMCMUSE,CHAR8A,VMCMUSER,       *00992000
                                                  HEX4A,(VMCMSRCT,1),HEX4A,((R7),12))                          00993000
022260                             1491+MSG024    DS    0H                                                      00099000
022260 4510 C2DE      222DE        1492+          BAL   1,DMSA1185                                              00113000 1498
022264 08C0                        1493+          DC    AL1(8,192)             FLAG BYTES                     00115000
022266 0000000000000000            1494+          DC    (5)XL5'00'                                            00019000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

02227F 5D                        1495+DMST1185 DC    AL1(DMSL1185)          LENGTH OF MESSAGE TEXT          00144000 1497
022280 C3C4C2E25BC4F0F2          1496+          DC    C'CDBS$D024I PORT ... EXECUTING DML ... FOR (.....,..X00147000
022288 F4C940D7D6D9E340              +          .) PORT_CB ..... '
                           0005D 1497+DMSL1185 EQU   *-DMST1185-1               TEXT LENGTH                     00150000
0222DE                           1498+DMSA1185 DS    0H                                                        00152000
0222DE 9263 1002       00002     1499+          MVI   2(1),99                  SET OPTION CODE                 00093000
0222E2 9201 1003       00003     1500+          MVI   3(1),1                                                   00017000
0222E6 41F0 4007       00007     1501+          LA    15,VMCMSNKT                                              00017000 2017
0222EA BEF7 1004       00004     1502+          STCM  15,B'0111',4(1)                                          00015000
0222EE 9241 1007       00007     1503+          MVI   7(1),65                  SET OPTION CODE                 00093000
0222F2 41F0 4020       00020     1504+          LA    15,VMCMUSE                                               00017000 2023
0222F6 BEF7 1008       00008     1505+          STCM  15,B'0111',8(1)                                          00015000
0222FA 9244 100B       0000B     1506+          MVI   11(1),68                 SET OPTION CODE                 00093000
0222FE 41F0 4008       00008     1507+          LA    15,VMCMUSER                                              00017000 2018
022302 BEF7 100C       0000C     1508+          STCM  15,B'0111',12(1)                                         00015000
022306 9263 100F       0000F     1509+          MVI   15(1),99                 SET OPTION CODE                 00093000
02230A 9201 1010       00010     1510+          MVI   16(1),1                                                  00017000
02230E 41F0 4006       00006     1511+          LA    15,VMCMSRCT                                              00017000 2016
022312 BEF7 1011       00011     1512+          STCM  15,B'0111',17(1)                                         00015000
022316 92E3 1014       00014     1513+          MVI   20(1),227                SET OPTION CODE                 00093000
02231A 920C 1015       00015     1514+          MVI   21(1),12                                                 00017000
02231E BE77 1016       00016     1515+          STCM  R7,B'0111',22(1)                                         00015000
022322 0ACB                      1516+          SVC   203                                                      00019000
022324 FFFA                      1517+          DC    H'-6'                                                    00019000
                                 1518           DROP  R4                                                       00994000
022326 07FE                      1519           BR    R14                -> TO CALLER.                         00995000

                           00000 1521           USING CIAMCB,R3                                                00997000 1876
                           00000 1522           USING VMCMHDR,R4                                               00998000 2000
                                 1523 MSG025    LINEDIT TEXT='CDBS$D025I PORT ... USER (.....:.....,...)*00999000
                                                       IDMS STATUS ...., DML CODE .... DML SEQUENCE ....',    *01000000
                                                DISP=ERRMSG,RENT=NO,SUB=(HEX4A,(VMCMSNKT,1),                  *01001000
                                                CHAR8A,(CCBPGM,8),CHAR8A,VMCMUSER,                            *01002000
                                                HEX4A,(VMCMSRCT,1),CHAR8A,(CCBERRST,4),                       *01003000
                                                DECA,VMCMUSE,DECA,CCBDMLSN)                                    01004000
022328                           1524+MSG025    DS    0H                                                       00099000
022328 4510 C3B4       223B4     1525+          BAL   1,DMSA1255                                               00113000 1531
02232C 08C0                      1526+          DC    AL1(8,192)               FLAG BYTES                    00115000
02232E 0000000000000000          1527+          DC    (7)XL5'00'                                             00019000
022351 62                        1528+DMST1255  DC    AL1(DMSL1255)            LENGTH OF MESSAGE TEXT        00144000 1530
022352 C3C4C2E25BC4F0F2          1529+          DC    C'CDBS$D025I PORT ... USER (.....:.....,...) IDMS X00147000
02235A F5C940D7D6D9E340              +          STATUS ...., DML CODE .... DML SEQUENCE ....'
                           00062 1530+DMSL1255 EQU   *-DMST1255-1               TEXT LENGTH                     00150000
0223B4                           1531+DMSA1255 DS    0H                                                        00152000
0223B4 9263 1002       00002     1532+          MVI   2(1),99                  SET OPTION CODE                 00093000
0223B8 9201 1003       00003     1533+          MVI   3(1),1                                                   00017000
0223BC 41F0 4007       00007     1534+          LA    15,VMCMSNKT                                              00017000 2017
0223C0 BEF7 1004       00004     1535+          STCM  15,B'0111',4(1)                                          00015000
0223C4 9264 1007       00007     1536+          MVI   7(1),100                 SET OPTION CODE                 00093000
0223C8 9208 1008       00008     1537+          MVI   8(1),8                                                   00017000
0223CC 41F0 30F0       000F0     1538+          LA    15,CCBPGM                                                00017000 1935
0223D0 BEF7 1009       00009     1539+          STCM  15,B'0111',9(1)                                          00015000
0223D4 9244 100C       0000C     1540+          MVI   12(1),68                 SET OPTION CODE                 00093000
0223D8 41F0 4008       00008     1541+          LA    15,VMCMUSER                                              00017000 2018
0223DC BEF7 100D       0000D     1542+          STCM  15,B'0111',13(1)                                         00015000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

0223E0 9263 1010       00010        1543+          MVI   16(1),99              SET OPTION CODE                 00093000
0223E4 9201 1011       00011        1544+          MVI   17(1),1                                               00017000
0223E8 41F0 4006       00006        1545+          LA    15,VMCMSRCT                                         00017000 2016
0223EC BEF7 1012       00012        1546+          STCM  15,B'0111',18(1)                                    00015000
0223F0 9264 1015       00015        1547+          MVI   21(1),100             SET OPTION CODE               00093000
0223F4 9204 1016       00016        1548+          MVI   22(1),4                                             00017000
0223F8 41F0 30F8       000F8        1549+          LA    15,CCBERRST                                         00017000 1936
0223FC BEF7 1017       00017        1550+          STCM  15,B'0111',23(1)                                    00015000
022400 9241 101A       0001A        1551+          MVI   26(1),65              SET OPTION CODE               00093000
022404 41F0 4020       00020        1552+          LA    15,VMCMUSE                                          00017000 2023
022408 BEF7 101B       0001B        1553+          STCM  15,B'0111',27(1)                                    00015000
02240C 92C1 101E       0001E        1554+          MVI   30(1),193             SET OPTION CODE               00093000
022410 41F0 31C4       001C4        1555+          LA    15,CCBDMLSN                                         00017000 1953
022414 BEF7 101F       0001F        1556+          STCM  15,B'0111',31(1)                                    00015000
022418 0ACB                         1557+          SVC   203                                                 00019000
02241A FFFA                         1558+          DC    H'-6'                                               00019000
                                    1559           DROP  R3,R4                                               01005000
02241C 07FE                         1560           BR    R14                   -> TO CALLER.                 01006000

                              00000 1562           USING VMCMHDR,R4                                          01008000 2000
                                    1563 ERR026    LINEDIT TEXT='CDBS$D026E INTERUPT ON PORT ... FROM (.........,.*01009000
                                          ..) NOT SEND/RECV PROTOCOL, REJECTED',                             *01010000
                                          DISP=ERRMSG,RENT=NO,                                               *01011000
                                          SUB=(HEX4A,(VMCMSRCT,1),CHAR8A,VMCMUSER,                           *01012000
                                          HEX4A,(VMCMSNKT,1))                                                01013000
02241E                              1564+ERR026    DS    0H                                                  00099000
02241E 4510 C488       22488        1565+          BAL   1,DMSA1339                                          00113000 1571
022422 08C0                         1566+          DC    AL1(8,192)              FLAG BYTES                  00115000
022424 0000000000000000             1567+          DC    (3)XL5'00'                                          00019000
022433 54                           1568+DMST1339  DC    AL1(DMSL1339)           LENGTH OF MESSAGE TEXT      00144000 1570
022434 C3C4C2E25BC4F0F2             1569+          DC    C'CDBS$D026E INTERUPT ON PORT ... FROM (.........,...) NOT00147000
02243C F6C540C9D5E3C5D9                    +          T SEND/RECV PROTOCOL, REJECTED'
                              00054 1570+DMSL1339  EQU   *-DMST1339-1            TEXT LENGTH                 00150000
022488                              1571+DMSA1339  DS    0H                                                  00152000
022488 9263 1002       00002        1572+          MVI   2(1),99               SET OPTION CODE               00093000
02248C 9201 1003       00003        1573+          MVI   3(1),1                                              00017000
022490 41F0 4006       00006        1574+          LA    15,VMCMSRCT                                         00017000 2016
022494 BEF7 1004       00004        1575+          STCM  15,B'0111',4(1)                                     00015000
022498 9244 1007       00007        1576+          MVI   7(1),68               SET OPTION CODE               00093000
02249C 41F0 4008       00008        1577+          LA    15,VMCMUSER                                         00017000 2018
0224A0 BEF7 1008       00008        1578+          STCM  15,B'0111',8(1)                                     00015000
0224A4 92E3 100B       0000B        1579+          MVI   11(1),227             SET OPTION CODE               00093000
0224A8 9201 100C       0000C        1580+          MVI   12(1),1                                             00017000
0224AC 41F0 4007       00007        1581+          LA    15,VMCMSNKT                                         00017000 2017
0224B0 BEF7 100D       0000D        1582+          STCM  15,B'0111',13(1)                                    00015000
0224B4 0ACB                         1583+          SVC   203                                                 00019000
0224B6 FFFA                         1584+          DC    H'-6'                                               00019000
                                    1585           DROP  R4                                                  01014000
0224B8 07FE                         1586           BR    R14                   -> TO CALLER.                 01015000

                                    1588 ERR027    LINEDIT TEXT='CDBS$R027E ERROR .... FROM DMSFRET, R0= .....*01017000
                                          , R1= .....',                                                      *01018000
                                          DISP=ERRMSG,RENT=NO,SUB=(HEXA,FREEFRET,HEXA,FREEFRET+4,            *01019000
                                          HEXA,FREEFRET+8)                                                   01020000
0224BA                              1589+ERR027    DS    0H                                                  00099000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

0224BA 4510 C50E       2250E        1590+          BAL   1,DMSA1395                                          00113000 1596
0224BE 08C0                         1591+          DC    AL1(8,192)              FLAG BYTES                  00115000
0224C0 0000000000000000             1592+          DC    (3)XL5'00'                                          00019000
0224CF 3E                           1593+DMST1395  DC    AL1(DMSL1395)           LENGTH OF MESSAGE TEXT      00144000 1595
0224D0 C3C4C2E25BD9F0F2             1594+          DC    C'CDBS$R027E ERROR .... FROM DMSFRET, R0= ........, R1= X00147000
0224D8 F7C540C5D9D9D6D9                +                 .........'
                                0003E  1595+DMSL1395  EQU   *-DMST1395-1              TEXT LENGTH                 00150000
02250E                              1596+DMSA1395  DS    0H                                                  00152000
02250E 9240 1002       00002        1597+          MVI   2(1),64                 SET OPTION CODE             00093000
022512 41F0 B6D0       216D0        1598+          LA    15,FREEFRET                                         00017000 957
022516 BEF7 1003       00003        1599+          STCM  15,B'0111',3(1)                                     00015000
02251A 9240 1006       00006        1600+          MVI   6(1),64                 SET OPTION CODE             00093000
02251E 41F0 B6D4       216D4        1601+          LA    15,FREEFRET+4                                       00017000 957
022522 BEF7 1007       00007        1602+          STCM  15,B'0111',7(1)                                     00015000
022526 92C0 100A       0000A        1603+          MVI   10(1),192               SET OPTION CODE             00093000
02252A 41F0 B6D8       216D8        1604+          LA    15,FREEFRET+8                                       00017000 957
02252E BEF7 100B       0000B        1605+          STCM  15,B'0111',11(1)                                    00015000
022532 0ACB                         1606+          SVC   203                                                 00019000
022534 FFFA                         1607+          DC    H'-6'                                               00019000
022536 07FE                         1608           BR    R14                -> GO BACK TO CALLER.            01021000

                                    1610 MSG028    LINEDIT TEXT='CDBS$T028I SYSTEM RE-INITIALIZATION FORCED BY EX*01023000
                                                         TERNAL INTERUPT CODE X''D2''',DISP=ERRMSG,RENT=NO       01024000
022538                              1611+MSG028    DS    0H                                                  00099000
022538 4510 C58A       2258A        1612+          BAL   1,DMSA1451                                          00113000 1617
02253C 00C0                         1613+          DC    AL1(0,192)              FLAG BYTES                  00115000
02253E 4A                           1614+DMST1451  DC    AL1(DMSL1451)           LENGTH OF MESSAGE TEXT      00144000 1616
02253F C3C4C2E25BE3F0F2             1615+          DC    C'CDBS$T028I SYSTEM RE-INITIALIZATION FORCED BY EXTERNALX00147000
022547 F8C940E2E8E2E3C5                +                  INTERUPT CODE X''D2'''
                                0004A  1616+DMSL1451  EQU   *-DMST1451-1              TEXT LENGTH                 00150000
02258A                              1617+DMSA1451  DS    0H                                                  00152000
02258A 0ACB                         1618+          SVC   203                                                 00019000
02258C FFFA                         1619+          DC    H'-6'                                               00019000
02258E 47F0 A5C0       205C0        1620           B     INTRNXIT           -> START SHUTDOWN.               01025000 604

                                    1622 ERR029    LINEDIT TEXT='CDBS$P029E DMSFRET ERROR IN RELEASING MEMORY FOR*01027000
                                                         BAD PORT REQUEST, R0= ........, R1= ........, R15= ....*01028000
                                                   ....',DISP=ERRMSG,RENT=NO,                                *01029000
                                                   SUB=(HEX4A,FREEFRET+4,HEX4A,FREEFRET+8,HEX4A,             *01030000
                                                   FREEFRET)                                                 01031000
022592                              1623+ERR029    DS    0H                                                  00099000
022592 4510 C614       22614        1624+          BAL   1,DMSA1478                                          00113000 1630
022596 08C0                         1625+          DC    AL1(8,192)              FLAG BYTES                  00115000
022598 0000000000000000             1626+          DC    (3)XL5'00'                                          00019000
0225A7 6C                           1627+DMST1478  DC    AL1(DMSL1478)           LENGTH OF MESSAGE TEXT      00144000 1629
0225A8 C3C4C2E25BD7F0F2             1628+          DC    C'CDBS$P029E DMSFRET ERROR IN RELEASING MEMORY FOR BAD PX00147000
0225B0 F9C540C4D4E2C6D9                +                 ORT REQUEST, R0= ........, R1= ........, R15= ........'
                                0006C  1629+DMSL1478  EQU   *-DMST1478-1              TEXT LENGTH                 00150000
022614                              1630+DMSA1478  DS    0H                                                  00152000
022614 9243 1002       00002        1631+          MVI   2(1),67                 SET OPTION CODE             00093000
022618 41F0 B6D4       216D4        1632+          LA    15,FREEFRET+4                                       00017000 957
02261C BEF7 1003       00003        1633+          STCM  15,B'0111',3(1)                                     00015000
022620 9243 1006       00006        1634+          MVI   6(1),67                 SET OPTION CODE             00093000
022624 41F0 B6D8       216D8        1635+          LA    15,FREEFRET+8                                       00017000 957
022628 BEF7 1007       00007        1636+          STCM  15,B'0111',7(1)                                     00015000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

02262C 92C3 100A       0000A        1637+          MVI   10(1),195              SET OPTION CODE                 00093000
022630 41F0 B6D0       216D0        1638+          LA    15,FREEFRET                                            00017000 957
022634 BEF7 100B       0000B        1639+          STCM  15,B'0111',11(1)                                       00015000
022638 0ACB                         1640+          SVC   203                                                    00019000
02263A FFFA                         1641+          DC    H'-6'                                                  00019000
02263C 07FE                         1642           BR    R14                -> BACK TO CALLER.                  01032000

                                    1644 MSG030    LINEDIT TEXT='CDBS$T030I FORCED LOGOFF OF CIAM SERVICES BY EXT*01034000
                                                         ERNAL INTERUPT X''D3''',                               *01035000
                                                         DISP=ERRMSG                                            01036000
02263E                              1645+MSG030    DS    0H                                                     00099000
02263E 4510 C68A       2268A        1646+          BAL   1,DMSA1534                                             00113000 1651
022642 00C0                         1647+          DC    AL1(0,192)               FLAG BYTES                    00115000
022644 44                           1648+DMST1534  DC    AL1(DMSL1534)            LENGTH OF MESSAGE TEXT        00144000 1650
022645 C3C4C2E25BE3F0F3             1649+          DC    C'CDBS$T030I FORCED LOGOFF OF CIAM SERVICES BY EXTERNAL X00147000
02264D F0C940C6D6D9C3C5                +                INTERUPT X''D3'''
                             00044  1650+DMSL1534  EQU   *-DMST1534-1            TEXT LENGTH                   00150000
02268A                              1651+DMSA1534  DS    0H                                                     00152000
02268A 0ACB                         1652+          SVC   203                                                    00019000
02268C FFFA                         1653+          DC    H'-6'                                                  00019000
02268E 47F0 A5C0       205C0        1654           B     INTRNXIT           -> TERMINATE MACHINE.               01037000 604

                                    1656 DUMPIT    LINEDIT TEXT='SPOOL CONS TO * START',DOT=NO,DISP=CPCOMM,      *01039000
                                                         RENT=NO                                                01040000
022692                              1657+DUMPIT    DS    0H                                                     00099000
022692 4510 C6AE       226AE        1658+          BAL   1,DMSA1561                                             00113000 1663
022696 0085                         1659+          DC    AL1(0,133)               FLAG BYTES                    00115000
022698 15                           1660+DMST1561  DC    AL1(DMSL1561)            LENGTH OF MESSAGE TEXT        00144000 1662
022699 E2D7D6D6D340C3D6             1661+          DC    C'SPOOL CONS TO * START'                               00147000
                             00015  1662+DMSL1561  EQU   *-DMST1561-1            TEXT LENGTH                   00150000
0226AE                              1663+DMSA1561  DS    0H                                                     00152000
0226AE 0ACB                         1664+          SVC   203                                                    00019000
0226B0 FFFA                         1665+          DC    H'-6'                                                  00019000
0226B2 9110 B6C0       216C0        1666           TM    CDBSFLG1,DUMPSTOR  HERE FROM EXT. ITRPT X'D1'??       01041000 946 950
0226B6 4710 C6E4       226E4        1667           BO    SKIPFATA           -> YES, DON'T SAY THIS IS FATAL.    01042000 1677
                                    1668           LINEDIT TEXT='FATAL CDBS ERROR, DUMP FOLLOWS',RENT=NO        01043000
0226BA 4510 C6E0       226E0        1669+          BAL   1,DMSA1588                                             00113000 1674
0226BE 00C1                         1670+          DC    AL1(0,193)               FLAG BYTES                    00115000
0226C0 1E                           1671+DMST1588  DC    AL1(DMSL1588)            LENGTH OF MESSAGE TEXT        00144000 1673
0226C1 C6C1E3C1D340C3C4             1672+          DC    C'FATAL CDBS ERROR, DUMP FOLLOWS'                      00147000
                             0001E  1673+DMSL1588  EQU   *-DMST1588-1            TEXT LENGTH                   00150000
0226E0                              1674+DMSA1588  DS    0H                                                     00152000
0226E0 0ACB                         1675+          SVC   203                                                    00019000
0226E2 FFFA                         1676+          DC    H'-6'                                                  00019000
0226E4                              1677 SKIPFATA  DS    0H                                                     01044000
                                    1678           LINEDIT TEXT='CDMSUSER DATA AREA',RENT=NO                    01045000
0226E4 4510 C6FE       226FE        1679+          BAL   1,DMSA1615                                             00113000 1684
0226E8 00C1                         1680+          DC    AL1(0,193)               FLAG BYTES                    00115000
0226EA 12                           1681+DMST1615  DC    AL1(DMSL1615)            LENGTH OF MESSAGE TEXT        00144000 1683
0226EB C3C4D4E2E4E2C5D9             1682+          DC    C'CDMSUSER DATA AREA'                                  00147000
                             00012  1683+DMSL1615  EQU   *-DMST1615-1            TEXT LENGTH                   00150000
0226FE                              1684+DMSA1615  DS    0H                                                     00152000
0226FE 0ACB                         1685+          SVC   203                                                    00019000
022700 FFFA                         1686+          DC    H'-6'                                                  00019000
                                    1687           LINEDIT TEXT='D T.....-.....',DOT=NO,DISP=CPCOMM,RENT=NO,    *01046000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                          SUB=(HEX,CDBS$DA,HEX,CDBS$DAE)                                  01047000
022702 4510 C724       22724       1688+          BAL   1,DMSA1642                                        00113000
022706 0885                        1689+          DC    AL1(8,133)              FLAG BYTES               00115000
022708 0000000000000000            1690+          DC    (2)XL5'00'                                       00019000
022712 10                          1691+DMST1642  DC    AL1(DMSL1642)           LENGTH OF MESSAGE TEXT   00144000 1693
022713 C440E34B4B4B4B4B4B          1692+          DC    C'D T.....-.....'                                00147000
                          00010    1693+DMSL1642  EQU   *-DMST1642-1            TEXT LENGTH              00150000
022724                             1694+DMSA1642  DS    0H                                               00152000
022724 9200 1002       00002       1695+          MVI   2(1),0                  SET OPTION CODE          00093000
022728 41F0 A848       20848       1696+          LA    15,CDBS$DA                                       00017000 772
02272C BEFF 1003       00003       1697+          STCM  15,B'1111',3(1)                                  00015000
022730 9280 1007       00007       1698+          MVI   7(1),128                SET OPTION CODE          00093000
022734 41F0 B700       21700       1699+          LA    15,CDBS$DAE                                      00017000 962
022738 BEFF 1008       00008       1700+          STCM  15,B'1111',8(1)                                  00015000
02273C 0ACB                        1701+          SVC   203                                              00019000
02273E FFFA                        1702+          DC    H'-6'                                            00019000
                                   1703           LINEDIT TEXT='PSW, XCR, GPR',RENT=NO                   01048000
022740 4510 C754       22754       1704+          BAL   1,DMSA1691                                       00113000 1709
022744 00C1                        1705+          DC    AL1(0,193)              FLAG BYTES               00115000
022746 0D                          1706+DMST1691  DC    AL1(DMSL1691)           LENGTH OF MESSAGE TEXT   00144000 1708
022747 D7E2E66B40E7C3D9            1707+          DC    C'PSW, XCR, GPR'                                 00147000
                          0000D    1708+DMSL1691  EQU   *-DMST1691-1            TEXT LENGTH              00150000
022754                             1709+DMSA1691  DS    0H                                               00152000
022754 0ACB                        1710+          SVC   203                                              00019000
022756 FFFA                        1711+          DC    H'-6'                                            00019000
                                   1712           LINEDIT TEXT='D PSW X G',DOT=NO,RENT=NO,DISP=CPCOMM    01049000
022758 4510 C768       22768       1713+          BAL   1,DMSA1718                                       00113000 1718
02275C 0085                        1714+          DC    AL1(0,133)              FLAG BYTES               00115000
02275E 09                          1715+DMST1718  DC    AL1(DMSL1718)           LENGTH OF MESSAGE TEXT   00144000 1717
02275F C440D7E2E640E740            1716+          DC    C'D PSW X G'                                     00147000
                          00009    1717+DMSL1718  EQU   *-DMST1718-1            TEXT LENGTH              00150000
022768                             1718+DMSA1718  DS    0H                                               00152000
022768 0ACB                        1719+          SVC   203                                              00019000
02276A FFFA                        1720+          DC    H'-6'                                            00019000
                                   1721           LINEDIT TEXT='CDBSVMCF CONTROL STORAGE, IEAVMCF AT ..... ',*01050000
                                          RENT=NO,SUB=(HEXA,AIEAVMCF)                                     01051000
02276C 4510 C7A0       227A0       1722+          BAL   1,DMSA1745                                       00113000
022770 10C1                        1723+          DC    AL1(16,193)             FLAG BYTES               00115000
022772 C0                          1724+          DC    AL1(DMSC1745)                                    00019000 1729
022773 2C                          1725+DMST1745  DC    AL1(DMSL1745)           LENGTH OF MESSAGE TEXT   00144000 1727
022774 C3C4C2E2E5D4C3C6            1726+          DC    C'CDBSVMCF CONTROL STORAGE, IEAVMCF AT ..... '   00147000
                          0002C    1727+DMSL1745  EQU   *-DMST1745-1            TEXT LENGTH              00150000
0227A0                             1728+DMSA1745  DS    0H                                               00152000
                          000C0    1729+DMSC1745  EQU   192                     SUBSTITUTION CODE        00061000
0227A0 4100 B4EC       214EC       1730+          LA    0,AIEAVMCF                                       00017000 786
0227A4 0ACB                        1731+          SVC   203                                              00019000
0227A6 FFFA                        1732+          DC    H'-6'                                            00019000

                                   1734           LINEDIT TEXT='D T.....-.....',DOT=NO,DISP=CPCOMM,RENT=NO,*01053000
                                          SUB=(HEXA,AIEASTRT,HEXA,AIEAEND)                                01054000
0227A8 4510 C7CA       227CA       1735+          BAL   1,DMSA1777                                       00113000
0227AC 0885                        1736+          DC    AL1(8,133)              FLAG BYTES               00115000
0227AE 0000000000000000            1737+          DC    (2)XL5'00'                                       00019000
0227B8 10                          1738+DMST1777  DC    AL1(DMSL1777)           LENGTH OF MESSAGE TEXT   00144000 1740
0227B9 C440E34B4B4B4B4B4B          1739+          DC    C'D T.....-.....'                                00147000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                             00010  1740+DMSL1777 EQU   *-DMST1777-1          TEXT LENGTH                      00150000
0227CA                              1741+DMSA1777 DS    0H                                                     00152000
0227CA 9240 1002       00002        1742+         MVI   2(1),64               SET OPTION CODE                  00093000
0227CE 41F0 B4F0       214F0        1743+         LA    15,AIEASTRT                                            00017000 787
0227D2 BEF7 1003       00003        1744+         STCM  15,B'0111',3(1)                                        00015000
0227D6 92C0 1006       00006        1745+         MVI   6(1),192              SET OPTION CODE                  00093000
0227DA 41F0 B4F4       214F4        1746+         LA    15,AIEAEND                                             00017000 788
0227DE BEF7 1007       00007        1747+         STCM  15,B'0111',7(1)                                        00015000
0227E2 0ACB                         1748+         SVC   203                                                    00019000
0227E4 FFFA                         1749+         DC    H'-6'                                                  00019000
                                    1750          LINEDIT TEXT='INITSA',RENT=NO                                01055000
0227E6 4510 C7F4       227F4        1751+         BAL   1,DMSA1826                                             00113000 1756
0227EA 00C1                         1752+         DC    AL1(0,193)            FLAG BYTES                       00115000
0227EC 06                           1753+DMST1826 DC    AL1(DMSL1826)         LENGTH OF MESSAGE TEXT           00144000 1755
0227ED C9D5C9E3E2C1                 1754+         DC    C'INITSA'                                              00147000
                             00006  1755+DMSL1826 EQU   *-DMST1826-1          TEXT LENGTH                      00150000
0227F4                              1756+DMSA1826 DS    0H                                                     00152000
0227F4 0ACB                         1757+         SVC   203                                                    00019000
0227F6 FFFA                         1758+         DC    H'-6'                                                  00019000
                                    1759          LINEDIT TEXT='D T......-......',DOT=NO,DISP=CPCOMM,RENT=NO,   *01056000
                                                  SUB=(HEX,INITSA,HEX,INITSA+72)                               01057000
0227F8 4510 C81A       2281A        1760+         BAL   1,DMSA1853                                             00113000
0227FC 0885                         1761+         DC    AL1(8,133)            FLAG BYTES                       00115000
0227FE 0000000000000000             1762+         DC    (2)XL5'00'                                             00019000
022808 10                           1763+DMST1853 DC    AL1(DMSL1853)         LENGTH OF MESSAGE TEXT           00144000 1765
022809 C440E34B4B4B4B4B             1764+         DC    C'D T......-......'                                    00147000
                             00010  1765+DMSL1853 EQU   *-DMST1853-1          TEXT LENGTH                      00150000
02281A                              1766+DMSA1853 DS    0H                                                     00152000
02281A 9200 1002       00002        1767+         MVI   2(1),0                SET OPTION CODE                  00093000
02281E 41F0 A6F8       206F8        1768+         LA    15,INITSA                                              00017000 704
022822 BEFF 1003       00003        1769+         STCM  15,B'1111',3(1)                                        00015000
022826 9280 1007       00007        1770+         MVI   7(1),128              SET OPTION CODE                  00093000
02282A 41F0 A740       20740        1771+         LA    15,INITSA+72                                           00017000 704
02282E BEFF 1008       00008        1772+         STCM  15,B'1111',8(1)                                        00015000
022832 0ACB                         1773+         SVC   203                                                    00019000
022834 FFFA                         1774+         DC    H'-6'                                                  00019000
                                    1775          LINEDIT TEXT='POSTSA',RENT=NO                                01058000
022836 4510 C844       22844        1776+         BAL   1,DMSA1902                                             00113000 1781
02283A 00C1                         1777+         DC    AL1(0,193)            FLAG BYTES                       00115000
02283C 06                           1778+DMST1902 DC    AL1(DMSL1902)         LENGTH OF MESSAGE TEXT           00144000 1780
02283D D7D6E2E3E2C1                 1779+         DC    C'POSTSA'                                              00147000
                             00006  1780+DMSL1902 EQU   *-DMST1902-1          TEXT LENGTH                      00150000
022844                              1781+DMSA1902 DS    0H                                                     00152000
022844 0ACB                         1782+         SVC   203                                                    00019000
022846 FFFA                         1783+         DC    H'-6'                                                  00019000
                                    1784          LINEDIT TEXT='D T......-......',DOT=NO,DISP=CPCOMM,RENT=NO,   *01059000
                                                  SUB=(HEX,POSTSA,HEX,POSTSA+72)                               01060000
022848 4510 C86A       2286A        1785+         BAL   1,DMSA1929                                             00113000
02284C 0885                         1786+         DC    AL1(8,133)            FLAG BYTES                       00115000
02284E 0000000000000000             1787+         DC    (2)XL5'00'                                             00019000
022858 10                           1788+DMST1929 DC    AL1(DMSL1929)         LENGTH OF MESSAGE TEXT           00144000 1790
022859 C440E34B4B4B4B4B             1789+         DC    C'D T......-......'                                    00147000
                             00010  1790+DMSL1929 EQU   *-DMST1929-1          TEXT LENGTH                      00150000
02286A                              1791+DMSA1929 DS    0H                                                     00152000
02286A 9200 1002       00002        1792+         MVI   2(1),0                SET OPTION CODE                  00093000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

02286E 41F0 A1DC       201DC        1793+          LA    15,POSTSA                                          00017000 205
022872 BEFF 1003       00003        1794+          STCM  15,B'1111',3(1)                                    00015000
022876 9280 1007       00007        1795+          MVI   7(1),128              SET OPTION CODE              00093000
02287A 41F0 A224       20224        1796+          LA    15,POSTSA+72                                       00017000 205
02287E BEFF 1008       00008        1797+          STCM  15,B'1111',8(1)                                    00015000
022882 0ACB                         1798+          SVC   203                                                00019000
022884 FFFA                         1799+          DC    H'-6'                                              00019000
                                    1800           LINEDIT TEXT='TERMSA',RENT=NO                            01061000
022886 4510 C894       22894        1801+          BAL   1,DMSA1978                                         00113000 1806
02288A 00C1                         1802+          DC    AL1(0,193)            FLAG BYTES                 00115000
02288C 06                           1803+DMST1978  DC    AL1(DMSL1978)         LENGTH OF MESSAGE TEXT     00144000 1805
02288D E3C5D9D4E2C1                 1804+          DC    C'TERMSA'                                          00147000
                              00006 1805+DMSL1978  EQU   *-DMST1978-1          TEXT LENGTH                00150000
022894                              1806+DMSA1978  DS    0H                                                 00152000
022894 0ACB                         1807+          SVC   203                                                00019000
022896 FFFA                         1808+          DC    H'-6'                                              00019000
                                    1809           LINEDIT TEXT='D T......-......',DOF=NO,DISP=CPCOMM,RENT=NO,    *01062000
                                                         SUB=(HEX,TERMSA,HEX,TERMSA+72)                     01063000
022898 4510 C8BA       228BA        1810+          BAL   1,DMSA2005                                         00113000
02289C 0885                         1811+          DC    AL1(8,133)            FLAG BYTES                 00115000
02289E 0000000000000000             1812+          DC    (2)XL5'00'                                         00019000
0228A8 10                           1813+DMST2005  DC    AL1(DMSL2005)         LENGTH OF MESSAGE TEXT     00144000 1815
0228A9 C440E34B4B4B4B4B             1814+          DC    C'D T......-......'                                00147000
                              00010 1815+DMSL2005  EQU   *-DMST2005-1          TEXT LENGTH                00150000
0228BA                              1816+DMSA2005  DS    0H                                                 00152000
0228BA 9200 1002       00002        1817+          MVI   2(1),0                SET OPTION CODE              00093000
0228BE 41F0 A694       20694        1818+          LA    15,TERMSA                                          00017000 691
0228C2 BEFF 1003       00003        1819+          STCM  15,B'1111',3(1)                                    00015000
0228C6 9280 1007       00007        1820+          MVI   7(1),128              SET OPTION CODE              00093000
0228CA 41F0 A6DC       206DC        1821+          LA    15,TERMSA+72                                       00017000 691
0228CE BEFF 1008       00008        1822+          STCM  15,B'1111',8(1)                                    00015000
0228D2 0ACB                         1823+          SVC   203                                                00019000
0228D4 FFFA                         1824+          DC    H'-6'                                              00019000
                                    1825           LINEDIT TEXT='TOUTSA',RENT=NO                            01064000
0228D6 4510 C8E4       228E4        1826+          BAL   1,DMSA2054                                         00113000 1831
0228DA 00C1                         1827+          DC    AL1(0,193)            FLAG BYTES                 00115000
0228DC 06                           1828+DMST2054  DC    AL1(DMSL2054)         LENGTH OF MESSAGE TEXT     00144000 1830
0228DD E3D6E4E3E2C1                 1829+          DC    C'TOUTSA'                                          00147000
                              00006 1830+DMSL2054  EQU   *-DMST2054-1          TEXT LENGTH                00150000
0228E4                              1831+DMSA2054  DS    0H                                                 00152000
0228E4 0ACB                         1832+          SVC   203                                                00019000
0228E6 FFFA                         1833+          DC    H'-6'                                              00019000
                                    1834           LINEDIT TEXT='D T......-......',DOF=NO,DISP=CPCOMM,RENT=NO,    *01065000
                                                         SUB=(HEX,TOUTSA,HEX,TOUTSA+72)                     01066000
0228E8 4510 C90A       2290A        1835+          BAL   1,DMSA2081                                         00113000
0228EC 0885                         1836+          DC    AL1(8,133)            FLAG BYTES                 00115000
0228EE 0000000000000000             1837+          DC    (2)XL5'00'                                         00019000
0228F8 10                           1838+DMST2081  DC    AL1(DMSL2081)         LENGTH OF MESSAGE TEXT     00144000 1840
0228F9 C440E34B4B4B4B4B             1839+          DC    C'D T......-......'                                00147000
                              00010 1840+DMSL2081  EQU   *-DMST2081-1          TEXT LENGTH                00150000
02290A                              1841+DMSA2081  DS    0H                                                 00152000
02290A 9200 1002       00002        1842+          MVI   2(1),0                SET OPTION CODE              00093000
02290E 41F0 A7FC       207FC        1843+          LA    15,TOUTSA                                          00017000 768
022912 BEFF 1003       00003        1844+          STCM  15,B'1111',3(1)                                    00015000
022916 9280 1007       00007        1845+          MVI   7(1),128              SET OPTION CODE              00093000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

02291A 41F0 A844       20844        1846+          LA     15,TOUTSA+72                                          00017000 768
02291E BEFF 1008       00008        1847+          STCM   15,B'1111',8(1)                                       00015000
022922 0ACB                         1848+          SVC    203                                                   00019000
022924 FFFA                         1849+          DC     H'-6'                                                 00019000
                                    1850           LINEDIT TEXT='SPOOL CONS CLOSE ',DOT=NO,DISP=CPCOMM,RENT=NO  01067000
022926 4510 C93E       2293E        1851+          BAL    1,DMSA2130                                            00113000 1856
02292A 0085                         1852+          DC     AL1(0,133)              FLAG BYTES                    00115000
02292C 11                           1853+DMST2130  DC     AL1(DMSL2130)           LENGTH OF MESSAGE TEXT        00144000 1855
02292D E2D7D6D6D340C3D6             1854+          DC     C'SPOOL CONS CLOSE '                                  00147000
                              00011 1855+DMSL2130  EQU    *-DMST2130-1            TEXT LENGTH                   00150000
02293E                              1856+DMSA2130  DS     0H                                                    00152000
02293E 0ACB                         1857+          SVC    203                                                   00019000
022940 FFFA                         1858+          DC     H'-6'                                                 00019000
022942 9110 B6C0       216C0        1859           TM     CDBSFLG1,DUMPSTOR   HERE FROM EXT. ITRPT X'D1'??       01068000 946 950
022946 4710 A7E4       207E4        1860           BO     TOUTEXIT            -> YES, GO BACK.                  01069000 759
                                    1861           LINEDIT TEXT='SYSTEM RE-INITIALIZATION IN PROGRESS',RENT=NO  01070000
02294A 4510 C976       22976        1862+          BAL    1,DMSA2157                                            00113000 1867
02294E 00C1                         1863+          DC     AL1(0,193)              FLAG BYTES                    00115000
022950 24                           1864+DMST2157  DC     AL1(DMSL2157)           LENGTH OF MESSAGE TEXT        00144000 1866
022951 E2E8E2E3C5D440D9             1865+          DC     C'SYSTEM RE-INITIALIZATION IN PROGRESS'               00147000
                              00024 1866+DMSL2157  EQU    *-DMST2157-1            TEXT LENGTH                   00150000
022976                              1867+DMSA2157  DS     0H                                                    00152000
022976 0ACB                         1868+          SVC    203                                                   00019000
022978 FFFA                         1869+          DC     H'-6'                                                 00019000
02297A 47F0 A5C0       205C0        1870           B      INTRNXIT            -> RE-INIT SYSTEM.                01071000 604


                                    1872           ENTRY CDBSDEND ,           FOR EASY LOCATION.                 01073000
                              2297E 1873 CDBSDEND  EQU    *                                                     01074000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                  1875          CIAMCB                                                          01077000
000000                            1876+CIAMCB   DSECT ,                                                         00008000
                                  1877+*                                                                        00010000
                                  1878+*              CIAMCB - CIAM CONTROL BLOCK                               00011000
                                  1879+*                                                                        00012000


000000                            1881+CCBCTRL  DS    0CL8          CIAM CONTROL INFORMATION.                   00014000 ?
                                  1882+*                                                                        00015000
000000                            1883+CCBLEN   DS    AL4           LENGTH OF CONTROL BLOCK.                    00016000
000004                            1884+CCBTOL   DS    F             TIMEOUT LIMIT PER DML STATEMENT.            00017000 ?

000008                            1886+CCBPLIST DS    0CL52         ARG_INFORMATION.                            00019000 ?
                                  1887+*                                                                        00020000
000008                            1888+CCB#ARGS DS    F             NUMBER OF ARGS -- THIS DML.                 00021000
                           0000C  1889+#ARGSOFF EQU   *-CIAMCB      OFFSET INTO CIAM CB FOR FIRST ARG.          00022000 ?
00000C                            1890+CCB$ARGS DS    12AL4         ARG LIST.                                   00023000

00003C                            1892+CCBID    DS    0CL56         LITERAL VALUES FOR CIAM ACCESS METHOD.      00025000 ?
                                  1893+*                                                                        00026000
00003C                            1894+CCBSCHEM DS    CL8           NAME OF SCHEMA.                             00027000 ?
000044                            1895+CCBREC   DS    CL16          NAME OF CURRENT RECORD, THIS DML.           00028000 ?
000054                            1896+CCBSET   DS    CL16          NAME OF CURRENT SET, THIS DML.              00029000 ?
000064                            1897+CCBAREA  DS    CL16          NAME OF CURRENT AREA, THIS DML.             00030000 ?

000074 07FA                       1899+CCBBR10  BR    10            BRANCH TO ADDRESS IN REG 10.                00032000

000076                            1901+CCBCOMM  DS    0CL20         COMMUNCIATIONS_PATH.                        00034000 ?
                                  1902+*                                                                        00035000
000076                            1903+CCBUVMID DS    CL8           USER VIRTUAL MACHINE ID.                    00036000
00007E                            1904+CCBUPORT DS    X             USER PORT.                                  00037000
00007F                            1905+CCBDVMID DS    CL8           DBMS VIRTUAL MACHINE ID.                    00038000 ?
000087                            1906+CCBDPORT DS    X             DBMS PORT.                                  00039000
000088                            1907+CCBMSGID DS    H             MESSAGE ID.                                 00040000 ?
00008A                            1908+         DS    CL2           /*PADDING*/                                 00041000

00008C                            1910+CCBDBS   DS    0CL100        DB_STATISTICS.                              00043000 ?
                                  1911+*                                                                        00044000
00008C                            1912+CCBDATE  DS    CL8           TODAYS DATE.                                00045000 ?
000094                            1913+CCBTIME  DS    CL8           TODAYS TIME.                                00046000 ?
00009C                            1914+CCBDBSZ  DS    0CL84         FIELDS CIAMSET INITILIZES TO 0.             00047000 ?
00009C                            1915+CCBPGRD  DS    F             PAGES_READ.                                 00048000 ?
0000A0                            1916+CCBPGWR  DS    F             PAGES_WRITTEN.                              00049000 ?
0000A4                            1917+CCBPGRQ  DS    F             PAGES_REQUESTED.                            00050000 ?
0000A8                            1918+CCBCTAR  DS    F             CALC_TARGET.                                00051000 ?
0000AC                            1919+CCBCOFLO DS    F             CALC_OVERFLOW.                              00052000 ?
0000B0                            1920+CCBVTAR  DS    F             VIA_TARGET.                                 00053000 ?
0000B4                            1921+CCBVOFLO DS    F             VIA_OVERFLOW.                               00054000 ?
0000B8                            1922+CCBLREQ  DS    F             LINES_REQUESTED.                            00055000 ?
0000BC                            1923+CCBRCUR  DS    F             RECS_CURRENT.                               00056000 ?
0000C0                            1924+CCBCTI   DS    F             CALLS_TO_IDMS.                              00057000 ?
0000C4                            1925+CCBFGST  DS    F             FRAGMENTS_STORED.                           00058000 ?
0000C8                            1926+CCBRREL  DS    F             RECS_RELOCATED.                             00059000 ?
0000CC                            1927+CCBLKREQ DS    F             LOCKS_REQUESTED.                            00060000 ?
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

0000D0                           1928+CCBSLHLD DS    F         SEL_LOCKS_HELD.                      00061000 ?
0000D4                           1929+CCBULHLD DS    F         UPD_LOCKS_HELD.                      00062000 ?
0000D8                           1930+         DS    CL24      FILLER.                              00063000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                           000F0  1932+#SSCOFF  EQU   *-CIAMCB       OFFSET OF SUBSCHEMA_CTRL FROM CIAM_CB.    00065000 ?
0000F0                            1933+CCBSSC   DS    0CL216         SUBSCHEMA_CTRL.                           00066000 ?
                                  1934+*                                                                         00067000
0000F0                            1935+CCBPGM   DS    CL8            PROGRAM NAME.                             00068000
0000F8                            1936+CCBERRST DS    0CL4           ERROR STATUS.                             00069000
0000F8                            1937+CCBEDML  DS    CL2            ERROR DML PART OF ERROR STATUS.           00070000 ?
0000FA                            1938+CCBENO   DS    CL2            ERROR NUMBER PART OF ERROR STATUS.        00071000 ?
0000FC                            1939+CCBDBKEY DS    F              DATABASE KEY.                             00072000 ?
000100                            1940+CCBRNAME DS    CL16           RECORD_NAME.                              00073000 ?
000110                            1941+CCBANAME DS    CL16           AREA_NAME.                                00074000 ?
000120                            1942+CCBESET  DS    CL16           ERROR_SET.                                00075000 ?
000130                            1943+CCBEREC  DS    CL16           ERROR_RECORD.                             00076000 ?
000140                            1944+CCBEAREA DS    CL16           ERROR_AREA.                               00077000 ?
000150                            1945+CCBICOMA DS    0CL100         IDBMSCOM AREA.                            00078000 ?
000150                            1946+CCBICOM  DS    100CL1         IDBMSCOM(100) CHAR(1).                    00079000 ?
0001B4                            1947+CCBDRKEY DS    F              DIRECT_DBKEY.                             00080000 ?
0001B8                            1948+CCBDBST  DS    0CL7           DATABASE_STATUS.                          00081000 ?
0001B8                            1949+CCBDBSC  DS    CL2            DBSTATEMENT_CODE.                         00082000 ?
0001BA                            1950+CCBDBSTS DS    CL2            DBSTATUS_CODE.                            00083000 ?
0001BC                            1951+         DS    CL1            FILLER.                                   00084000
0001C0                            1952+CCBROCC  DS    F              RECORD_OCCUR.                             00085000 ?
0001C4                            1953+CCBDMLSN DS    F              DML_SEQUENCE.                             00086000

                                  1955+* SUBSCHEMA RECORDS WILL FOLLOW.                                          00088000
                          001C8   1956+CCBSECTL EQU   *-CIAMCB       LENGTH OF BLOCK                           00089000 ?
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

000000                             1958 CDBSPORT DSECT                                                    01080000
000000                             1959 PORT$ECB DS    AL4          ECB FOR THIS PORT.                    01081000
000004                             1960 PORT$NR  DS    AL4          POINTER TO NEXT RUNNABLE PORT.        01082000
000008                             1961 PORT$CD@ DS    AL4          POINTER TO PORT DATA AREA.            01083000
                           0000C   1962 PORTSECL EQU   *-CDBSPORT   SECT LENGTH                           01084000
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                            1964          VMCPARM                                                          01087000
000000                      1965+VMCPARM  DSECT ,                                                         00009000
                            1966+*                                                                         00011000
                            1967+*              VMCPARM - VMCF PARAMETER BLOCK                             00012000
                            1968+*                                                                         00013000
000000                      1969+VMCPFLG1 DS    X             FLAGS                                        00014000 ?
                     00080  1970+VMCPAUTS EQU   X'80'         AUTHORIZE SPECIFIC                           00015000
                     00040  1971+VMCPPRTY EQU   X'40'         PRIORITY                                     00016000 ?
000001                      1972+         DS    X             RESERVED                                     00017000
000002                      1973+VMCPFUNC DS    H             FUNCTION CODE                                00018000 ?
                     00000  1974+VMCPAUTH EQU   X'0000'       AUTHORIZE                                    00019000
                     00001  1975+VMCPUAUT EQU   X'0001'       UNAUTHORIZE                                  00020000
                     00002  1976+VMCPSEND EQU   X'0002'       SEND                                         00021000 ?
                     00003  1977+VMCPSENR EQU   X'0003'       SEND/RECV                                    00022000 ?
                     00004  1978+VMCPSENX EQU   X'0004'       SENDX                                        00023000 ?
                     00005  1979+VMCPRECV EQU   X'0005'       RECEIVE                                      00024000
                     00006  1980+VMCPCANC EQU   X'0006'       CANCEL                                       00025000 ?
                     00007  1981+VMCPREPL EQU   X'0007'       REPLY                                        00026000
                     00008  1982+VMCPQUIE EQU   X'0008'       QUIESCE                                      00027000 ?
                     00009  1983+VMCPRESM EQU   X'0009'       RESUME                                       00028000 ?
                     0000A  1984+VMCPIDEN EQU   X'000A'       IDENTIFY                                     00029000 ?
                     0000B  1985+VMCPRJCT EQU   X'000B'       REJECT                                       00030000
                     0001F  1986+VMCPUNST EQU   X'001F'       UNSTACK                                      00031000
000004                      1987+VMCPMID  DS    0F            MESSAGE ID                                   00032000 ?
000004                      1988+VMCPUMID DS    H             USER PORTION OF MESSAGE ID                   00033000
000006                      1989+VMCPSRCT DS    X             SOURCE TASK ID                               00034000
000007                      1990+VMCPSNKT DS    X             SINK TASK ID                                 00035000
000008                      1991+VMCPUSER DS    CL8           USERID                                       00036000
000010                      1992+VMCPVADA DS    A             ADDRESS OF BUFFER A                          00037000
000014                      1993+VMCPLENA DS    A             LENGTH OF BUFFER A                           00038000
000018                      1994+VMCPVADB DS    A             ADDRESS OF BUFFER B                          00039000 ?
00001C                      1995+VMCPLENB DS    F             LENGTH OF BUFFER B                           00040000 ?
000020                      1996+VMCPUSE  DS    XL8           USER DOUBLEWORD                              00041000 ?
                     00028  1997+VMCPLEN  EQU   *-VMCPARM     LENGTH OF BLOCK                              00042000 ?
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                            1999          VMCMHDR                                                          01090000
000000                      2000+VMCMHDR  DSECT ,                                                          00009000
                            2001+*                                                                         00011000
                            2002+*              VMCMHDR - VMCF EXTERNAL INTERRUPT HEADER                   00012000
                            2003+*                                                                         00013000
000000                      2004+VMCMSTAT DS    X                                                          00014000 ?
                    00080   2005+VMCMRESP EQU   X'80'          THIS IS FINAL (RESPONSE) IRPT              00015000 ?
                    00040   2006+VMCMRJCT EQU   X'40'          SINK USER REJECTED THIS SEND OR SEND/RECV  00016000 ?
                    00020   2007+VMCMPRTY EQU   X'20'          PRIORITY MESSAGE                           00017000 ?
000001                      2008+VMCMEFLG DS    X              ERROR CODE                                 00018000 ?
000002                      2009+VMCMFUNC DS    H              FUNCTION OF ORIGINAL REQUEST               00019000
                    00002   2010+VMCMSEND EQU   X'0002'        SEND                                       00020000 ?
                    00003   2011+VMCMSENR EQU   X'0003'        SEND/RECV                                  00021000
                    00004   2012+VMCMSENX EQU   X'0004'        SENDX                                      00022000 ?
                    0000A   2013+VMCMIDEN EQU   X'000A'        IDENTIFY                                   00023000 ?
000004                      2014+VMCMMID  DS    0F             MESSAGE ID                                 00024000 ?
000004                      2015+VMCMUMID DS    H              USER PORTION OF MESSAGE ID                 00025000
000006                      2016+VMCMSRCT DS    X              SOURCE TASK ID                             00026000
000007                      2017+VMCMSNKT DS    X              SINK TASK ID                               00027000
000008                      2018+VMCMUSER DS    CL8            USERID                                     00028000
000010                      2019+VMCMVADA DS    A              ADDRESS OF BUFFER A                        00029000 ?
000014                      2020+VMCMLENA DS    F              LENGTH OF BUFFER A                         00030000 ?
000018                      2021+VMCMVADB DS    A              ADDRESS OF BUFFER B                        00031000 ?
00001C                      2022+VMCMLENB DS    F              LENGTH OF BUFFER B                         00032000 ?
000020                      2023+VMCMUSE  DS    XL8            USER DOUBLEWORD                            00033000
                    00028   2024+VMCMLEN  EQU   *-VMCMHDR      LENGTH OF HEADER                           00034000 ?
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                   2026           KSUSECT                                                    01093000
                                   2027+          PUSH  PRINT                                                00003000
000000                             2028+KSUSECT   DSECT                                                    00007000
000000                             2029+KSURSV    DS    2D       RESERVED                                    00008000
                             00000 2030+KSULABEL  EQU   KSURSV,10 DISK LABEL ('CMS=VOLID')                   00009000 ?
000010                             2031+KSUUSER   DS    CL8      USERID                                      00010000 ?
000018                             2032+KSUACNT   DS    CL8      ACCOUNT                                     00011000 ?
000020                             2033+KSUSSN    DS    F        SSN (ZERO IF ACNT BEGINS WITH Z)            00012000 ?
000024                             2034+KSUNAME   DS    CL20     NAME (ZERO IF NOT YET OBTAINED)             00013000 ?
000038                             2035+KSUSEQ    DS    CL8      LAST SEQUENCE NUMBER (ZERO IF NONE)         00014000 ?
000040                             2036+KSUPASW   DS    CL8      PASS WORD (ZERO IF NOT YET OBTAINED)        00015000 ?
000048                             2037+KSUUNUS1  DS    CL4      UNUSED                                      00016000 ?
00004C                             2038+KSUSPCON  DS    CL4      LAST CONSOLE SPOOLID (ZERO IF NONE)         00017000 ?
000050                             2039+KSUKSSCT  DS    A        ADDRESS OF KSUSECT                          00018000 ?
000054                             2040+KSUFMSCT  DS    A        POINTER TO FMSECT                           00019000 ?
000058                             2041+KSUMFSCT  DS    A        POINTER TO SMFSECT                          00020000 ?
00005C                             2042+KSULSSCT  DS    A        ADDRESS OF END OF KSU'S SECTS               00021000 ?
000060                             2043+KSUUNUS2  DS    C        UNUSED                                      00022000 ?
000061                             2044+KSUFLAG1  DS    X        FLAGS                                       00023000 ?
                             00080 2045+KSUCHNG   EQU   X'80'    KSU'S SECTS SHOULD BE REWRITTEN             00024000 ?
                             00040 2046+KSUNOWRT  EQU   X'40'    KSU'S SECTS SHOULD NEVER BE REWRITTEN       00025000 ?
                             00020 2047+KSUTNAME  EQU   X'20'    NAME GOTTEN WAS ASSUMED                     00026000 ?
                             00010 2048+KSUFMRAL  EQU   X'10'    AN FMRETR(ALL) HAS BEEN DONE          KM081 00027000 ?
000062                             2049+KSUFLAG2  DS    X                                                    00028000 ?
000063                             2050+KSUFLAG3  DS    X                                                    00029000 ?
000068                             2051+          DS    0D                                                   00030000
                             00068 2052+KSUSECTL  EQU   *-KSUSECT                                           00031000 ?
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                ASM 0201 20.35 10/25/81
                                    2054+         POP   PRINT                          00033000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.35 10/25/81

                                   2056          NUCON                                                          01096000
                                   2057+         PUSH  PRINT                                                    00140000
000000                             2058+NUCON    DSECT                                                          00200000
                                   2059+*                                                                       00350000
                                   2060+***      NUCON - NUCLEUS CONSTANT AREA                                  00360000
                                   2061+*                                                                       00370000
                                   2062+*           0 +-------------------+-------------------+               00380000
                                   2063+*             |      RSTNPSW      |      RSTOPSW      |               00390000
                                   2064+*          10 +-------------------+-------------------+               00400000
                                   2065+*             | ACNSCVT | ASYSREF |      EXTOPSW      |               00410000
                                   2066+*          20 +-------------------+-------------------+               00420000
                                   2067+*             |      SVCOPSW      |      PGMOPSW      |               00430000
                                   2068+*          30 +-------------------+-------------------+               00440000
                                   2069+*             |      MCKOPSW      |      IOOPSW       |               00450000
                                   2070+*          40 +-------------------+---------+---------+               00460000
                                   2071+*             |        CSW        |   CAW   | NUCRSV1 |               00470000
                                   2072+*          50 +---------+---------+---------+---------+               00480000
                                   2073+*             |  TIMER  | NUCRSV2 |      EXTNPSW      |               00490000
                                   2074+*          60 +---------+---------+-------------------+               00500000
                                   2075+*             |      SVCNPSW      |      PGMNPSW      |               00510000
                                   2076+*          70 +-------------------+-------------------+               00520000
                                   2077+*             |      MCKNPSW      |      IONPSW       |               00530000
                                   2078+*          80 +-------------------+-------------------+               00540000
                                   2079+*             |                NUCRSV3                |               00550000
                                   2080+*          90 +---------+----+----+---------+---------+               00560000
                                   2081+*             | NUCRSV4 |N*1 |N*2 | PERADDR | MONCODE |               00570000
                                   2082+*          A0 +---------+----+----+---------+---------+               00580000
                                   2083+*             |                NUCCOPYR               |    @V62B0H2 00590000
                                   2084+*          C0 +---------------------------------------+    @V62B0H2 00600000
                                   2085+*             |                                       |               00610000
                                   2086+*             =                LOWSAVE                =               00620000
                                   2087+*             |                                       |               00630000
                                   2088+*         160 +---------------------------------------+               00640000
                                   2089+*             |                                       |               00650000
                                   2090+*             =                FPRLOG                 =               00660000
                                   2091+*             |                                       |               00670000
                                   2092+*         180 +---------------------------------------+               00680000
                                   2093+*             |                                       |               00690000
                                   2094+*             =                GPRLOG                 =               00700000
                                   2095+*             |                                       |               00710000
                                   2096+*         1C0 +---------------------------------------+               00720000
                                   2097+*             |                                       |               00730000
                                   2098+*             =                ECRLOG                 =               00740000
                                   2099+*             |                                       |               00750000
                                   2100+*         200 +---------------------------------------+               00760000
                                   2101+*             |                (CONT)                 |               00770000
                                   2102+*                                                                       00780000
                                   2103+***      NUCON - NUCLEUS CONSTANT AREA                                  00790000
                                   2104+*                                                                       00800000
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.35 10/25/81

```
2106+*                                                                  00820000
2107+***      NUCON - NUCLEUS CONSTANT AREA                             00830000
2108+*                                                                  00840000
2109+*                 |                (CONT)                  |       00850000
2110+*           200   +----------------------------------------+       00860000
2111+*                 |                                        |       00870000
2112+*                 =              SYSTEMID                  =       00880000
2113+*                 |                                        |       00890000
2114+*           220   +----------------------------------------+       00900000
2115+*                 |                                        |       00910000
2116+*                 =              INSTALID                  =       00920000
2117+*                 |                                        |       00930000
2118+*           260   +--------------------+----+----+---------+       00940000
2119+*                 |      SYSNAME       |N*3 |N*4 | NUCRSV6 |       00950000
2120+*           270   +--------------------+----+----+---------+       00960000
2121+*                 |                FEIBM                   |       00970000
2122+*           280   +--------------------+--------------------+       00980000
2123+*                 |     CURRDATE       |     CURRTIME       |       00990000
2124+*           290   +---------+---------+---------+---------+       01000000
2125+*                 |CURRVIRT |CURRCPUT |LASTVIRT |LASTCPUT |       01010000
2126+*           2A0   +---------+---------+---------+---------+       01020000
2127+*                 |     LASTCMND       |     LASTEXEC       |       01030000
2128+*           2B0   +--------------------+--------------------+       01040000
2129+*                 |     LASTLMOD       |     LASTTMOD       |       01050000
2130+*           2C0   +--------------------+--------------------+       01060000
2131+*                 |                                        |       01070000
2132+*                 =                                        =       01080000
2133+*                 |                                        |       01090000
2134+*           300   +---------+---------+---------+---------+       01100000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                   2136+*        MACHINE USAGE                                                 01120000

000000                             2138+IPLPSW   DS    1D -        INITIAL PROGRAM LOADING PSW               01140000
000008                             2139+IPLCCW1  DS    1D -        INITIAL PROGRAM LOADING CCW1              01150000 ?
000010                             2140+IPLCCW2  DS    1D -        INITIAL PROGRAM LOADING CCW2              01160000 ?
000018                      00000  2141+         ORG   IPLPSW                                                  01170000 2138
000000                             2142+RSTNPSW  DS    1D -        PSW RESTART NEW PSW                       01180000 ?
000008                             2143+RSTOPSW  DS    1D -        PSW RESTART OLD PSW                       01190000 ?
000010                             2144+ACMSCVT  DS    1F -        ADDRESS OF SIMULATED OS CVT               01200000 ?
000014                             2145+ASYSREF  DS    1F -        ADDRESS OF NUCLEUS ADDRESS TABLE          01210000 ?

000018                             2147+EXTOPSW  DS    1D -        EXTERNAL OLD PSW                          01230000 ?
000020                             2148+SVCOPSW  DS    1D -        SUPERVISOR CALL OLD PSW                   01240000 ?
000028                             2149+PGMOPSW  DS    1D -        PROGRAM OLD PSW                           01250000 ?
000030                             2150+MCKOPSW  DS    1D -        MACHINE-CHECK OLD PSW                     01260000 ?
000038                             2151+IOOPSW   DS    1D -        INPUT/OUTPUT OLD PSW                      01270000 ?

000040                             2153+CSW      DS    1D -        CHANNEL STATUS WORD                       01290000 ?
000048                             2154+CAW      DS    1F -        CHANNEL ADDRESS WORD                      01300000 ?

00004C                             2156+NUCRSV1  DS    1F -        RESERVED FOR FUTURE USE                   01320000 ?
000050                             2157+TIMER    DS    1F -        INTERVAL TIMER                            01330000 ?
000054                             2158+NUCRSV2  DS    1F -        RESERVED FOR FUTURE USE                   01340000 ?

000058                             2160+EXTNPSW  DS    1D -        EXTERNAL NEW PSW                          01360000 ?
000060                             2161+SVCNPSW  DS    1D -        SUPERVISOR CALL NEW PSW                   01370000 ?
000068                             2162+PGMNPSW  DS    1D -        PROGRAM NEW PSW                           01380000 ?
000070                             2163+MCKNPSW  DS    1D -        MACHINE-CHECK NEW PSW                     01390000 ?
000078                             2164+IONPSW   DS    1D -        INPUT/OUTPUT NEW PSW                      01400000 ?

000080                             2166+CPULOG   DS    48D -       CPU LOGOUT AREA                           01420000
000200                      00080  2167+         ORG   CPULOG                                                  01430000 2166
000080                             2168+NUCRSV3  DS    2D -        RESERVED FOR FUTURE USE                   01440000 ?
000090                             2169+NUCRSV4  DS    1F -        RESERVED FOR FUTURE USE                   01450000 ?
000094                             2170+MONCLASS DS    1H -        N*1 - MONITOR CALL CLASS NUMBER           01460000 ?
000096                             2171+PERCODE  DS    1H -        N*2 - PROGRAM EVENT RECORDER CODE         01470000 ?
000098                             2172+PERADDR  DS    1F -        PROGRAM EVENT RECORDER ADDRESS            01480000 ?
00009C                             2173+MONCODE  DS    1F -        MONITOR CALL CODE                         01490000 ?
0000A0                             2174+NUCCOPYR DS    CL32'COPYRIGHT IBM VM/SP 5664-167' CMS COPYRIGHT@V6BF1H2 01500000 ?

0000C0                             2176+LOWSAVE  DS    XL160 -     SAVE AREA FOR 1ST 160 BYTES OF STORAGE    01520000

000160                             2178+FPRLOG   DS    4D -        FLOATING POINT REGISTER LOGOUT AREA       01540000
000180                             2179+GPRLOG   DS    16F -       GENERAL PURPOSE REGISTER LOGOUT AREA      01550000
0001C0                             2180+ECRLOG   DS    16F -       EXTENDED CONTROL REGISTER LOGOUT AREA     01560000 ?
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                   2183+*         SYSTEM USAGE                                                    01590000

000200                             2185+SYSTEMID  DS    CL32 -          SYSTEM NAME AND DATE                      01610000 ?
000220                             2186+INSTALID  DS    CL64 -          INSTALLATION IDENTIFICATION               01620000 ?
000260                             2187+SYSNAME   DS    CL8 -           NAME OF IPLED SAVED SYSTEM                01630000 ?
000268                             2188+IPLADDR   DS    1H -            N*3 - ADDRESS OF IPLED DEVICE             01640000 ?
00026A                             2189+SYSADDR   DS    1H -            N*4 - ADDRESS OF SYSTEM DISK              01650000 ?
00026C                             2190+DEVICE    DS    1F -            NAME OF DEVICE CAUSING LAST I/O INTERRUPT  01660000 ?
000270                             2191+NUCRSV6   DS    1F -            RESERVED FOR FUTURE USE                   01670000 ?
000274 F5F7F4F9C4D4E2F0            2192+FEIBM     DC    CL12'5749DMS00   ' COMPONENT ID-IPCS REFERENCED @V67CBE4  01680000 ?

000280                             2194+DIAGTIME  DS    CL24 -          BUFFER FOR DIAGNOSE TIMER                 01700000
000298                    00280    2195+          ORG   DIAGTIME                                                   01710000 2194
000280                             2196+CURRDATE  DS    CL8 -           CURRENT DATE - MM/DD/YY                   01720000 ?
000288                             2197+CURRTIME  DS    CL8 -           CURRENT TIME - HH.MM.SS                   01730000 ?
000290                             2198+CURRVIRT  DS    1F -            CURRENT ELAPSED VIRTUAL TIME USED         01740000 ?
000294                             2199+CURRCPUT  DS    1F -            CURRENT ELAPSED CPU TIME USED             01750000 ?
000298                             2200+LASTVIRT  DS    1F -            PREVIOUS ELAPSED VIRTUAL TIME USED        01760000 ?
00029C                             2201+LASTCPUT  DS    1F -            PREVIOUS ELAPSED CPU TIME USED            01770000 ?

0002A0 4040404040404040            2203+LASTCMND  DC    CL8' ' -        LAST COMMAND ISSUED                       01790000 ?
0002A8 4040404040404040            2204+PREVCMND  DC    CL8' ' -        NEXT TO LAST COMMAND                      01800000 ?
0002B0 4040404040404040            2205+LASTEXEC  DC    CL8' ' -        LAST EXEC PROCEDURE                       01810000 ?
0002B8 4040404040404040            2206+PREVEXEC  DC    CL8' ' -        NEXT TO LAST EXEC                         01820000 ?

0002C0 4040404040404040            2208+LASTLMOD  DC    CL8' '          LAST MODULE LOADMODED INTO MAIN STORAGE   01840000 ?
0002C8 C1C3C3C5E2E24040            2209+LASTTMOD  DC    CL8'ACCESS'     LAST MODULE LOADMODED INTO TRANSIENT AREA 01850000 ?

0002D0 0000000000000000            2211+DATIPCMS  DC    D'0'            DATE (MM/DD/YY) AT LAST IPL CMS           01870000 ?
0002D8 0000000000000000            2212+CLKVALMD  DC    D'0'            TIME (STCK FORM) AT MIDNIGHT (0000 HOURS) 01880000 ?

                                   2214+*         MACRO AND TEXT LIBRARY POINTERS                                 01900000
0002E0 0000000000000000            2215+MACDIRC   DC    8A(0) -         ADDRESS OF MACRO LIBRARY DIRECTORIES      01910000 ?
000300 FFFFFFFFFFFFFFFF            2216+MACLIBL   DC    18F'-1' -       CURRENT MACRO LIBRARY NAMES               01920000 ?
000348 00000000                    2217+TXLIBSV   DC    F'0'            LIBE SAVE AREA TXTLIBS          @VM04102  01930000 ?
00034C 00000000                    2218+MACLBSV   DC    F'0'            LIBE SAVE AREA MACLIBS          @VM04102  01940000 ?
000350 00000000                    2219+TOTLIBS   DC    F'0'            TOTAL GLOBAL CHAINS (BYTES)     @VM04102  01950000 ?
000354 00000000                    2220+TXTDIRC   DC    A(0) -          ADDRESS OF TEXT LIBRARY DIRECTORIES       01960000 ?
000358 FFFFFFFFFFFFFFFF            2221+TXTLIBS   DC    18F'-1' -       CURRENT TEXT LIBRARY NAMES                01970000 ?

                                   2223+*         DEBUG DUMP PARAMETERS                                           01990000
0003A0                             2224+DUMPLIST  DS    0D -            DEBUG DUMP PARAMETER LIST                 02000000 ?
0003A0 00000180                    2225+GRS015    DC    A(GPRLOG) -     ADDRESS OF GPR SAVE AREA                  02010000 ? 2179
0003A4 000000C0                    2226+LOC0176   DC    A(LOWSAVE) -    ADDRESS OF LOW CORE SAVE AREA             02020000 ? 2176
0003A8 00000000                    2227+FIRSTDMP  DC    A(0) -          ADDRESS OF FIRST LOCATION TO DUMP         02030000 ?
0003AC 00000000                    2228+LASTDMP   DC    A(0) -          ADDRESS OF LAST LOCATION TO DUMP          02040000 ?
0003B0 00000160                    2229+FRS06     DC    A(FPRLOG) -     ADDRESS OF FPR SAVE AREA                  02050000 ? 2178
0003B4 000003BC                    2230+DMPTIT    DC    A(DMPTITLE) -   ADDRESS OF DUMP TITLE LINE              02060000 ? 2232
0003B8 FFFFFFFF                    2231+          DC    4X'FF' -        RESERVED FOR FUTURE USE                   02070000
0003BC 4040404040404040            2232+DMPTITLE  DC    CL132' ' -      DUMP TITLE LINE                           02080000

000440 00000000                    2234+GLBLTABL  DC    F'0'            RESERVED                                  02100000 ?
000444 0000                        2235+          DC    H'0'            RESERVED FOR ALIGNMENT                    02110000

000446 0ACA                        2237+SVC$202   SVC   202             COMMON SVC FOR REENTRANT CODE             02130000 ?
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

000448 0000044C                  2238+ERR$202  DC    A(**4)          USER WILL FILL IN IF NECESSARY                02140000 ?
00044C 07FE                      2239+         BR    14              RETURN TO CALLER                             02150000

00044E 0000                      2241+         DC    H'0'            RESERVED FOR FUTURE USE                      02170000


                                 2244+*        BATCH MONITOR INFORMATION                                          02200000
000450 00                        2245+BATFLAGS DC    1X'00' -        BATCH FLAGS                                  02210000 ?
                          00080  2246+BATRUN   EQU   X'80' -        BATCH MONITOR RUNNING                        02220000 ?
                          00040  2247+BATLOAD  EQU   X'40' -        LOADING BATCH PROCESSOR                      02230000 ?
                          00020  2248+BATNOEX  EQU   X'20' -        SUPPRESS USER JOB EXECUTION                  02240000 ?
                          00010  2249+BATRERR  EQU   X'10' -        BATCH READER ERROR                           02250000 ?
                          00008  2250+BATCPEX  EQU   X'08' -        CP COMMAND EXECUTING                         02260000 ?
                          00004  2251+BATUSEX  EQU   X'04' -        USER JOB EXECUTING                           02270000 ?
                          00002  2252+BATMOVE  EQU   X'02' -        MOVEFILE EXECUTING FROM TERMINAL             02280000 ?
                          00001  2253+BATTERM  EQU   X'01' -        USER JOB BEING FLUSHED                       02290000 ?

000451 00                        2255+BATFLAG2 DC    1X'00' -        MORE BATCH FLAGS                             02310000 ?
                          00080  2256+BATXLIM  EQU   X'80' -        USER JOB LIMIT EXCEEDED                      02320000 ?
                          00040  2257+BATXCPU  EQU   X'40' -        CPU TIME EXCEEDED                            02330000 ?
                          00020  2258+BATXPRT  EQU   X'20' -        NO. PRINTED LINES EXCEEDED                   02340000 ?
                          00010  2259+BATXPUN  EQU   X'10' -        NO. PUNCHED CARDS EXCEEDED                   02350000 ?
                          00008  2260+BATDCMS  EQU   X'08' -        DISABLED CMS COMMAND CALLED                  02360000 ?
                          00004  2261+BATIPLSS EQU   X'04' -        BATCH IPLING SAVED SYSTEM                    02370000 ?
                          00002  2262+BATSTOP  EQU   X'02' -        BATCH STOPPING AFTER CURRENT JOB             02380000 ?
                          00001  2263+BATSYSAB EQU   X'01'          SYSTEM ABEND IN PROCESS          @VA05162    02390000 ?
000452 00                        2264+BATFLAG3 DC    1X'00'          MORE BATCH FLAGS                 @VA12384    02400000 ?
                          00080  2265+BATCPFNG EQU   X'80'          CPF LINK FAILURE                 @VA12384    02403000 ?
000453 00                        2266+         DC    1X'00' -        RESERVED FOR FUTURE USE          @VA12384    02406000

                                 2268+*                            BATCH PROCESSOR ENTRY POINTS                 02420000
000454 00000000                  2269+ABATPROC DC    A(0) -          MAIN ENTRY                                   02430000 ?
000458 00000000                  2270+ABATABND DC    A(0) -          USER JOB ABEND ENTRY                         02440000 ?
00045C 00000000                  2271+ABATLIMT DC    A(0) -          USER JOB LIMITS TABLE                        02450000 ?
000460 00000000                  2272+AUSERRST DC    A(0)        VIRTUAL MACHINE RESTART ENTRY POINT  @V60C5BE    02460000 ?
000464 00000000                  2273+NUSERFWD DC    F'0'          FULLWORD FOR EXCLUSIVE USE OF USER @VMI0066    02470000 ?
000468 00000000                  2274+AKSUSECT DC    A(0) -          POINTER TO MUCH KSU INFORMATION      KM050    02481000 ?

                                 2276+*        DOS LIBRARY POINTERS                                               02500000
00046C 00000000                  2277+DOSLBSV  DC    F'0'              LIBE SAVE AREA DOSLIBS         @VM04102    02510000 ?
000470 0000000000000000          2278+DOSDIRC  DC    8A(0) -         ADDRESS OF DOS LIBRARY DIRECTORIES           02520000 ?
000490 FFFFFFFFFFFFFFFF          2279+DOSLIBL  DC    18F'-1' -       CURRENT DOS LIBRARY NAMES                    02530000 ?
0004D8 00                        2280+DOSFLAGS DC    X'00' -         DOS SIMULATION FLAGS                         02540000 ?
                          00080  2281+DOSMODE  EQU   X'80' -        DOS ENVIRONMENT FLAG                         02550000 ?
                          00040  2282+DOSSVC   EQU   X'40' -        DOS SVC SIMULATION FLAG                      02560000 ?
                          00020  2283+DOSVSAM  EQU   X'20' -        DOS VSAM RUNNING FLAG                        02570000 ?
                          00010  2284+DOSCOMP  EQU   X'10' -        DOS COMPILER RUNNING FLAG                    02580000 ?
                          00008  2285+DOSPIO   EQU   X'08'          DOS PRINTER INDICATOR                        02590000 ?
                          00004  2286+VSMINSTL EQU   X'04'          VSAM INSTAL FLAG TO RELOCATE DCSS TABLE      02600000 ?
0004D9 00                        2287+DOSRC    DC    X'00' -         DOS RETURN CODE TO USER                      02610000 ?
0004DA 0000                      2288+         DC    2X'00' -        RESERVED FOR FUTURE USE                      02620000
0004DC 00000000                  2289+ALTASAVE DC    V(LTASAVE)    - ADDRESS OF LTA SAVE AREA                     02630000 ? -
0004E0 00000000                  2290+ABGCOM   DC    V(BGCOM)      - ADDRESS OF PARTITION COMM. REGION            02640000 ? -
0004E4 00000000                  2291+ASYSCOM  DC    V(SYSCOM)     - ADDRESS OF SYSTEM COMM. REGION               02650000 ? -
0004E8 00000000                  2292+ADOSDCSS DC    A(0) -          ADDRESS OF DOS DCSS                          02660000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

0004EC 00000000                  2293+SVC12SAV DC    F'0' -          WORK AREA FOR SVC12                      02670000 ?
0004F0 00000000                  2294+DOSFIRST DC    A(0) -          ADDRESS OF FIRST DOSCB IN CHAIN          02680000 ?
0004F4 0000                      2295+DOSNUM   DC    H'0' -          NUMBER DOSCB'S IN CHAIN                  02690000 ?
0004F6 0000                      2296+DOSKPART DC    H'0' -          NUMBER K-BYTES IN DOS PARTITION          02700000 ?
0004F8 00000000                  2297+APPSAVE  DC    V(PPSAVE)    -  ADDRESS OF PROB. PROG. SAVE AREA         02710000 ? -
0004FC 00000000                  2298+DOSTRANS DC    A(0)            ADDRESS OF DOS TRANSIENT AREA            02720000 ?

                                 2300+*        FREE STORAGE POINTERS                                          02740000
000500 00000000                  2301+MAINLIST DC    A(0) -          ADDR 1ST BLK USER FREE STORAGE           02750000 ?
000504 00000000                  2302+MAINSTRT DC    V(USERAREA)  -  ADDRESS OF THE START OF USER FREE STORAGE 02760000 ? -
000508 00000000                  2303+FREELIST DC    V(NUCEND)    -    ADDRESS OF 1ST BLOCK OF SYSTEM STORAGE 02770000 ? -
00050C 00000001                  2304+FREENUM  DC    F'1' -          NUMBER OF BLOCKS OF SYSTEM STORAGE       02780000 ?
000510 00000000                  2305+MAINHIGH DC    V(USERAREA)  -  HIGH EXTEND OF USER FREE STORAGE         02790000 ? -
000514 00000000                  2306+FREELOWE DC    V(NUCEND)    -    LOW EXTEND OF SYSTEM FREE STORAGE    02800000 ? -
000518 00000000                  2307+FREELOWR DC    V(TRANSAR)   -    LOWER LIMIT OF SYSTEM FREE STORAGE   02810000 ? -
00051C 00000000                  2308+FREEUPPR DC    A(0) -          UPPER LIMIT OF SYSTEM FREE STORAGE       02820000 ?
000520 00000000                  2309+ANUCEND  DC    V(NUCEND)    -    ADDRESS OF END OF NUCLEUS STORAGE AREA 02830000 ? -
000524 00000000                  2310+AUSRAREA DC    V(INITSUB)   -  ADDRESS OF BEGINNING OF USER AREA        02840000 ? -
000528 00000000                  2311+CURRSAVE DC    A(0) -          ADDRESS OF CURRENT SAVE AREA             02850000 ?
00052C 0000                      2312+CODE203  DC    H'0' -          CODE NUMBER OF LAST SVC 203              02860000 ?
00052E 0002                      2313+FRERESPG DC    H'2' -          AMOUNT OF USER STORAGE TO RESERVE       *02870000 ?
                                    +                                FOR CMS FREE STORAGE (PAGES: >=2)        02880000
000530 00000000                  2314+ADMSFRT  DC    V(DMSFRT)       DMSFRE WORK AREA                         02890000

                                 2316+* V-CONSTANTS FOR CALLING "ADTLKP/ADTNXT/ADTLKW" VIA BALR CALLS:          02910000
000534 00000000                  2317+VCADTLKP DC    V(DMSLAD)       BALR EQUIVALENT OF "ADTLKP"              02920000 ? -
000538 00000000                  2318+VCADTNXT DC    V(DMSLADN)      BALR EQUIVALENT OF "ADTNXT"              02930000 ? -
00053C 00000000                  2319+VCADTLKW DC    V(DMSLADW)      BALR EQUIVALENT OF "ADTLKW"              02940000 ? -

                                 2321+*        CONSOLE I/O POINTERS                                           02960000
000540 00000000                  2322+CURRIOOP DC    A(0) -          ADDRESS OF CURRENT I/O BUFFER            02970000 ?
000544 00000000                  2323+PENDREAD DC    A(0) -          ADDRESS OF PENDING READ OPERATION        02980000 ?
000548 00000A60                  2324+PENDWRIT DC    A(CONSTACK)  -  ADDRESS OF PENDING WRITE OPERATION       02990000 ? 2557
00054C 00000000                  2325+FSTFINRD DC    A(0) -          ADDRESS OF FINISHED READ BUFFER          03000000 ?
000550 00000000                  2326+LSTFINRD DC    A(0) -          ADDRESS OF LAST FINISHED READ BUFFER     03010000 ?
000554 00000000                  2327+AINTRTBL DC    A(0) -          ADDRESS OF USER INPUT TRANSLATE TABLE    03020000 ?
000558 00000000                  2328+AOUTRTBL DC    A(0) -          ADDRESS OF USER OUTPUT TRANSLATE TABLE   03030000 ?
00055C 0000                      2329+NUMFINRD DC    H'0' -          NUMBER OF FINISHED READ BUFFERS          03040000 ?
00055E 0000                      2330+NUMPNDWR DC    H'0' -          NUMBER OF PENDING WRITE OPERATIONS       03050000 ?

                                 2332+*        LOADER INFORMATION                                             03070000
000560                           2333+VMSIZE   DS    1F -            VIRTUAL MEMORY SIZE                      03080000 ?
000564 00000000                  2334+ALDRTBLS DC    1F'0'           ADDRESS OF LOADER TABLES                 03090000 ?
000568 00000000                  2335+STRTADDR DC    1F'0'           MODULE STARTING ADDRESS                  03100000 ?
00056C 00000000                  2336+FRSTLOC  DC    1F'0'           MODULE BEGINNING ADDRESS                 03110000 ?
000570 00000000                  2337+LASTLOC  DC    1F'0'           MODULE ENDING ADDRESS                    03120000 ?
000574 00000000                  2338+LOCCNT   DC    1F'0'           LOADER LOCATION COUNTER                  03130000 ?
000578 00000000                  2339+LDRADDR  DC    1F'0'           LOADER RETURN ADDRESS                    03140000 ?
00057C 00000000                  2340+LDRRTCD  DC    1F'0'           LOADER RETURN CODE                       03150000 ?
000580 0000000000000000          2341+PSW      DC    1D'0'           USER'S STARTING PSW                      03160000 ?
000588 00000000                  2342+LDRFLAGS DC    1F'0'           LOADER FLAGS                             03170000 ?
00058C 00000000                  2343+PRHOLD   DC    1F'0'           PSEUDO REGISTER COUNTER                  03180000 ?
000590 0000                      2344+TBENT    DC    H'0'            INITIALIZE TABLE ENTRIES TO              03190000 ?
                                 2345+*                            ZEROES                                   03200000
000592 00                        2346+UNRES    DC    X'00'                                                    03210000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

000593 00                         2347+MODFLGS  DC    1X'00'          MOD FLAGS                                 03220000 ?
                            00080 2348+NOMAPFLG EQU   X'80'          NOMAP FLAG                                03230000 ?
                            00040 2349+CLEAROP  EQU   X'40'          CLEAR OPTION FLAG                         03240000 ?
                            00020 2350+MODGNDOS EQU   X'20'          MODULE GENERATED WITH DOS OPTION          03250000 ?
                            00010 2351+MODGNALL EQU   X'10'          MODULE GENERATED WITH ALL OPTION          03260000 ?
                            00008 2352+SYSLOAD  EQU   X'08'          ALLOW LOAD >FREELOWE OR <TRANS   @VA04666 03270000 ?
                            00004 2353+MDPCALL  EQU   X'04'          INDICATE CALL FROM DMSMDP                 03280000 ?
                            00002 2354+MOD6     EQU   X'02'          RESERVED FOR FUTURE USE                   03290000 ?
                            00001 2355+MOD7     EQU   X'01'          RESERVED FOR FUTURE USE                   03300000 ?
000594 00000000                   2356+GET1     DC    1F'0'           DMSLSY R1 SAVE LOC                        03310000 ?
000598 0000000000000000           2357+DSYM     DC    2F'0' -         DMSLSY WORK SPACE                         03320000 ?
0005A0 00000000                   2358+JSYM     DC    F'0' -          DMSLSY UNIQUE SYMBOL BASE                 03330000 ?
0005A4 E9                         2359+NXTSYM   DC    C'Z' -          1ST CHAR OF UNIQUE SYMBOL                 03340000 ?
0005A5 00000000000000             2360+         DC    XL7'0' -        REST OF UNIQUE SYMBOL                     03350000
0005AC 00000000                   2361+ALIASENT DC    1F'0'           ALIAS ENTRY POINT (DYNAMIC LOAD)          03360000 ?
0005B0 00000000                   2362+DYNAEND  DC    1F'0'           MAX. LOAD LOC (DYNAMIC LOAD)              03370000 ?
0005B4 00000000                   2363+OSMODLDW DC    F'0'            SIZE OF OS SIM. IN DWORDS         @VA05055 03380000 ?

                                  2365+*        OS SIMULATION POINTERS                                          03400000

0005B8 00000000                   2367+LABFIRST DC    A(0) -          ADDRESS OF FIRST LABSECT                  03420000 ?
0005BC 0000                       2368+LABNUM   DC    H'0' -          NUMBER OF LABSECT'S                       03430000 ?
0005BE 0000                       2369+         DC    H'0' -          RESERVED HALFWORD                         03440000
0005C0                            2370+FCBTAB   DS    0D -            FCB CHAIN ANCHOR                          03450000 ?
0005C0 00000000                   2371+FCBFIRST DC    A(0) -          ADDRESS OF FIRST FCB                      03460000 ?
0005C4 0000                       2372+FCBNUM   DC    H'0' -          NUMBER OF FCB'S IN CHAIN                  03470000 ?
0005C6 00                         2373+         DC    X'00' -         RESERVED FOR WPL  ****************        03480000
0005C7 00                         2374+OSSFLAGS DC    X'00' -         OS SIMULATION FLAGS                       03490000 ?
                            00080 2375+COMPSWT  EQU   X'80' -         COMPILER SWITCH                           03500000 ?
                            00040 2376+OSSMNU   EQU   X'40' -         DMSSMN UNCONDITIONAL FLAG                 03510000 ?
                            00020 2377+OSRESET  EQU   X'20' -                                                   03520000 ?
                            00010 2378+OSWAIT   EQU   X'10'                                                     03530000 ?
                            00008 2379+DYLD     EQU   X'08' -         DYNAMIC LOADING IN PROCESS                03540000 ?
                            00004 2380+DYLIBO   EQU   X'04' -         OMIT DYNAMIC LIBRARY SCAN                 03550000 ?
                            00002 2381+DYLIBNOW EQU   X'02' -         DYNAMIC LIBRARY SCAN                      03560000 ?
                            00001 2382+DYMBRNM  EQU   X'01' -         LINKED VIA MEMBER NAME                    03570000 ?
0005C8 00000000                   2383+ATLBMODL DC    A(0) -          ADDRESS OF TAPE LABEL PROCESSOR           03580000 ?
0005CC 00000000                   2384+LINKLAST DC    A(0) -          ADDRESS OF LAST OS LINKAGE BLOCK          03590000 ?
0005D0 00000000                   2385+LINKSTRT DC    A(0) -          ADDRESS OF ENTRY POINT OF LAST MODULE     03600000 ?
0005D4 00000000                   2386+TAXEADDR DC    A(0) -          TERMINAL ATTENTION EXIT ELEMENT ADDRESS   03610000 ?
0005D8 00000000                   2387+ATSOCPPL DC    V(CPPL)           ADDRESS OF TMP PLIST FOR TSO PROGRAMS   03620000 ?
0005DC 00000000                   2388+DCBSAV   DC    1F'0'           DCB RESTORATION ADDRESS                   03630000 ?

                                  2390+*        SWITCHES                                                        03650000
0005E0 00                         2391+OPTFLAGS DC    1X'00' -        OPTION FLAGS                              03660000 ?
                            00080 2392+NOIMPEX  EQU   X'80' -         NO IMPLIED EXEC COMMANDS                  03670000 ?
                            00040 2393+NOIMPCP  EQU   X'40' -         NO IMPLIED CP COMMANDS                    03680000 ?
                            00020 2394+NOSTDSYN EQU   X'20' -         NO STANDARD SYNONYMS                      03690000 ?
                            00010 2395+NOABBREV EQU   X'10' -         NO COMMAND ABBREVIATIONS                  03700000 ?
                            00008 2396+NOPAGREL EQU   X'08' -         NO AUTOMATIC PAGE RELEASE                 03710000 ?
                            00004 2397+NOVMREAD EQU   X'04' -         NO AUTOMATIC VM CONSOLE READ              03720000 ?

0005E1 00                         2399+MISFLAGS DC    1X'00' -        MISCELLANEOUS FLAGS                       03740000 ?
                            00080 2400+KXSWITCH EQU   X'80' -         KILL EXECUTION SWITCH                     03750000 ?
                            00040 2401+KOSWITCH EQU   X'40' -         KILL TRACING SWITCH                       03760000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                           00020  2402+RELPAGES EQU   X'20' -       RELEASE PAGES SWITCH                          03770000 ?
                           00010  2403+GRAFDEV  EQU   X'10' -       GRAPHICS CONSOLE                              03780000 ?
                           00008  2404+QSWITCH  EQU   X'08' -       QUIET SW FOR CRD                              03790000 ?
                           00004  2405+NODDSK   EQU   X'04' -       DON'T ACCESS D DISK..                         03800000 ?
                           00002  2406+NEGITS   EQU   X'02'         NEGATIVE RETURN CODE FROM DMSITS              03810000 ?
                           00001  2407+ATTNRIT  EQU   X'01'             ATTENTION POSTED            @VA05051 03820000 ?

0005E2 00                        2409+MSGFLAGS DC    1X'00' -       MESSAGE FLAGS                                 03840000 ?
                           00080 2410+NOTYPOUT EQU   X'80' -       NO TYPING - SET BY EXEC                       03850000 ?
                           00040 2411+NOTYPING EQU   X'40' -       NO TYPING - SET BY KT                         03860000 ?
                           00020 2412+NORDYMSG EQU   X'20' -       NO READY MESSAGE TO BE TYPED                  03870000 ?
                           00010 2413+NORDYTIM EQU   X'10' -       NO TIME ON READY MESSAGE                      03880000 ?
                           00008 2414+REDERRID EQU   X'08' -       ERROR CODE TO BE TYPED IN RED                 03890000 ?
                           00004 2415+NOERRMSG EQU   X'04' -       NO ERROR MESSAGES TO BE TYPED                 03900000 ?
                           00002 2416+NOERRTXT EQU   X'02' -       NO TEXT ON ERROR MESSAGES                     03910000 ?
                           00001 2417+SPECLF   EQU   X'01' -       LINEFEED FOR TYPEWRITER CCW                   03920000 ?

0005E3 00                        2419+DBGFLAGS DC    1X'00' -       DEBUG FLAGS                                   03940000 ?
                           00080 2420+DBGEXEC  EQU   X'80' -       DEBUG EXECUTING                               03950000 ?
                           00040 2421+DBGPGMCK EQU   X'40' -       DEBUG ENTERED BY A PROGRAM CHECK              03960000 ?
                           00020 2422+DBGEXINT EQU   X'20' -       DEGUB ENTERED BY AN EXTERNAL INTERRUPT        03970000 ?
                           00010 2423+DBGABN   EQU   X'10' -             DEBUG ENTERED FROM DMSABN               03980000 ?
                           00008 2424+DBGNSHR  EQU   X'08' -       NO SHARED-SEGMENT PRESENT                     03990000 ?
                           00004 2425+DBGSHR   EQU   X'04' -       SHARED-SEGMENT PRESENT                        04000000 ?
                           00002 2426+DBGRECUR EQU   X'02' -       RECURSION FLAG                                04010000 ?

0005E4 00                        2428+         DC    1X'00' -       RESERVED                          KM050 04031000

0005E5 00                        2430+KSUFLAGS DC    1X'00' -       MISCELLANEOUS KSU DEFINED FLAGS   KM050 04033000
                           00080 2431+MODE6OK  EQU   X'80' -       MODE NUMBER 6 FILES MAY BE PROCESSEDKM050 04034000 ?
                           00040 2432+SUPRDYMS EQU   X'40' -       SUPPRESS RDYMSG FOR CURRENT COMMAND KM050 04035000 ?
                           00020 2433+CMSRUNOF EQU   X'20' -       DON'T CONTINUE TO RUN WHILE ATTN UP KM074 04036000 ?
                           00010 2434+FMRUN    EQU   X'10' -       FILE MANAGER IS CURRENTLY EXECUTING KM075 04037000

0005E6 00                        2436+EXECFLAG DC    1X'00' -       EXEC FLAGS                                    04050000 ?
                           00080 2437+EXECRUN  EQU   X'80' -       EXEC COMMAND RUNNING                          04060000 ?

0005E7 00                        2439+PROTFLAG DC    1X'00' -       STORAGE PROTECTION FLAGS                      04080000 ?
                           00080 2440+PRFPOFF  EQU   X'80' -       STORAGE PROTECTION IS SHUT OFF                04090000 ?
                           00040 2441+PRFTSYS  EQU   X'40' -       SYSTEM ROUTINE IN TRANSIENT AREA              04100000 ?
                           00020 2442+PRFUSYS  EQU   X'20' -       SYSTEM ROUTINE IN USER AREA                   04110000 ?

0005E8 00                        2444+TSOFLAGS DC    1X'00' -       TSO FLAG BYTE                                 04130000 ?
                           00080 2445+TSOATCNL EQU   X'80' -       READ CANCELED BY ATTENTION                    04140000 ?

0005E9 00                        2447+SUBFLAG  DC    1X'00' -       CMS SUBSET FLAG-BYTE                          04160000 ?
                           00008 2448+SUBREJ   EQU   X'08'         SUBSET COMMAND REJECT                         04170000 ?
                           00004 2449+SUBRTN   EQU   X'04' -       SUBSET-RETURN                                 04180000 ?
                           00002 2450+SUBINIT  EQU   X'02' -       SUBSET INITIALIZATION                         04190000 ?
                           00001 2451+SUBACT   EQU   X'01' -       SUBSET ACTIVE                                 04200000 ?

0005EA 00                        2453+DCSSFLAG DC    X'00'          DCSS INDICATORS                               04220000 ?
                           00080 2454+DCSSAVAL EQU   X'80'         CMSSEG SEGMENT EXISTS                         04230000 ?
                           00040 2455+DCSSLDED EQU   X'40'         CMSSEG LOADED                                 04240000 ?
                           00020 2456+DCSSCPNV EQU   X'20'         CP OR NOTVALID COMMAND ISSUED                 04250000 ?
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                           00010 2457+DCSSLDSD EQU   X'10'          LOADING 'S' DISK                        04260000 ?
                           00008 2458+DCSSVTNA EQU   X'08'          SVT MODULE NOT AVAILABLE                04270000 ?
                           00004 2459+DCSSVTLD EQU   X'04'          SVT MODULE IS LOADED                    04280000 ?
                           00002 2460+DCSSOVLP EQU   X'02'          VM STORAGE OVERLAY BY DCSS              04290000 ?
                           00001 2461+DCSSJLNS EQU   X'01'          CMSSEG JUST LOADED NON-SHARED           04300000 ?

0005EB 00                        2463+          DC    X'00'          RESERVED FOR FUTURE USE                 04320000
0005EC 00000000                  2464+ASYSNAMS  DC    V(SYSNAMES)    -                                       04330000 ? -
0005F0 00000000                  2465+ACMSSEG   DC    F'0'           ADR OF CMS SAVED SEGMENT                04340000 ?
0005F4 00000000                  2466+ADMSLIO   DC    V(DMSLIO)                                              04350000 ? -

                                 2468+* V-CONSTANTS FOR CALLING "FSTLKP/FSTLKW" VIA BALR CALLS:               04370000
0005F8 00000000                  2469+VCFSTLKP  DC    V(DMSLFS)      BALR EQUIVALENT OF "FSTLKP"             04380000 ? -
0005FC 00000000                  2470+VCFSTLKW  DC    V(DMSLFSW)     BALR EQUIVALENT OF "FSTLKW"             04390000 ? -
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                   2472+*         NUCLEUS ADDRESS TABLE                                  04410000

000600                             2474+SYSREF    DS     0D                                              04430000 ?
000600 00000000                    2475+AFVS      DC     V(FVS)    -                                     04440000 ? -
000604 00000000                    2476+AOPSECT   DC     V(OPSECT)    -                                  04450000 ? -
000608 00000000                    2477+ADEVTAB   DC     V(DEVTAB)    -                                  04460000 ? -
00060C 00000000                    2478+AFSTLKP   DC     V(FSTLKP) -                                     04470000 ? -
000610 00000000                    2479+AGETCLK   DC     V(DMSINM) -                                     04480000 ? -
000614 00000000                    2480+AFSTLKW   DC     V(FSTLKW) -                                     04490000 ? -
000618 00000000                    2481+APIE      DC     V(PIE)    -                                     04500000 ? -
00061C 00000000                    2482+AIADT     DC     V(IADT)    -                                    04510000 ? -
000620 00000000                    2483+AUSER     DC     V(USERSECT)    -                               04520000 ? -
000624 00000000                    2484+ARDTK     DC     V(DMSDIOR) -                                    04530000 ? -
000628 00000000                    2485+ASCANN    DC     V(DMSSCNN) -                                    04540000 ? -
00062C 00000000                    2486+ASSTAT    DC     A(0) -                                          04550000 ?
000630 00000000                    2487+ATABEND   DC     V(TABEND)    -                                  04560000 ? -
000634 00000000                    2488+ASUBSECT  DC     V(SUBSECT)    -                                 04570000 ? -
000638 00000000                    2489+AOSMODL   DC     A(0)                                            04580000 ?
00063C 00000000                    2490+AWRTK     DC     V(DMSDIOW) -                                    04590000 ? -
000640 00000000                    2491+ASTRINIT  DC     V(DMSSTGST)                                     04600000 ? -
000644 00000000                    2492+IADT      DC     V(ADTSECT)    -                                 04610000 ? -
000648 00000000                    2493+AFREE     DC     V(FREE) -                                       04620000 ? -
00064C 00000000                    2494+AFRET     DC     V(FRET) -                                       04630000 ? -
000650 00000000                    2495+ADMSPIOC  DC     V(DMSPIOCC) -                                   04640000 ? -
000654 00000000                    2496+APGMSECT  DC     V(PGMSECT)    -                                 04650000 ? -
000658 00000000                    2497+AIOSECT   DC     V(IOSECT)    -                                  04660000 ? -
00065C 00000000                    2498+ADMPEXEC  DC     V(DMSDBD) -                                     04670000 ? -
000660 00000000                    2499+ADIOSECT  DC     V(DIOSECT)    -                                 04680000 ? -
000664 00000000                    2500+AABNSVC   DC     V(DMSABNUA)                                     04690000 ? -
000668 00000000                    2501+ADMSERL   DC     V(DMSERL)    -                                  04700000 ? -
00066C 00000000                    2502+ADMSCRD   DC     V(DMSCRD) -                                     04710000 ? -
000670 00000000                    2503+ADMSFREB  DC     V(DMSFREB) -                                    04720000 ? -
000674 00000000                    2504+ASVCSECT  DC     V(SVCSECT)    -                                 04730000 ? -
000678 00000000                    2505+AADTLKP   DC     V(ADTLKP) -                                     04740000 ? -
00067C 00000000                    2506+AUPUFD    DC     V(DMSAUDUP) -                                   04750000 ? -
000680 00000000                    2507+ASTATEXT  DC     A(0) -                                          04760000 ?
000684 00000000                    2508+AOSRET    DC     V(OSRET) -                                      04770000 ? -
000688 00000000                    2509+ACMSRET   DC     V(CMSRET) -                                     04780000 ? -
00068C 00000000                    2510+ASCANO    DC     V(DMSSCNO) -                                    04790000 ? -
000690 00000000                    2511+AEXEC     DC     V(DMSEXC) -                                     04800000 ? -
000694 00000000                    2512+ASTART    DC     V(DMSLDRA)                                      04810000 ? -
000698 00000000                    2513+AADTLKW   DC     V(ADTLKW) -                                     04820000 ? -
00069C 00000000                    2514+AUSABRV   DC     V(USABRV)    -                                  04830000 ? -
0006A0 00000000                    2515+AEXTSECT  DC     V(EXTSECT)    -                                 04840000 ? -
0006A4 00000000                    2516+ASCBPTR   DC     V(SCBPTR)    -                                  04850000 ? -
0006A8 00000000                    2517+ADMSROS   DC     A(0) -                                          04860000 ?
0006AC 0000                        2518+LDMSROS   DC     H'0' -                                          04870000 ?
0006AE 0000                        2519+CDMSROS   DC     H'0' -                                          04880000 ?
0006B0 00000000                    2520+AACTLKP   DC     V(DMSLAP) -                                     04890000 ? -
0006B4 00000000                    2521+AACTNXT   DC     V(DMSLAFNX) -                                   04900000 ? -
0006B8 00000000                    2522+AACTFREE  DC     V(DMSLAFFE) -                                   04910000 ? -
0006BC 00000000                    2523+AACTFRET  DC     V(DMSLAFFT) -                                   04920000 ? -
0006C0 00000000                    2524+AADTNXT   DC     V(ADTNXT)                                       04930000 ? -
0006C4 00000000                    2525+ATRKLKP   DC     V(DMSTRK) -                                     04940000 ? -
0006C8 00000000                    2526+ATRKLKPX  DC     V(DMSTRKX) -                                    04950000 ? -
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT
0006CC 00000000                  2527+AQQTRK   DC    V(DMSTQQ) -                04960000 ? -
0006D0 00000000                  2528+AQQTRKX  DC    V(DMSTQQX) -               04970000 ? -
0006D4 00000000                  2529+AERASE   DC    V(DMSERS) -                04980000 ? -
0006D8 00000000                  2530+ATYPSRCH DC    V(TYPSRCH)                 04990000 ? -
0006DC 00000000                  2531+AUPDISK  DC    V(DMSAUD) -                05000000 ? -
0006E0 00000000                  2532+AKILLEX  DC    V(KILLEX)                  05010000 ? -
0006E4 00000000                  2533+ATPINIS  DC    V(DMSFNST) -               05020000 ? -
0006E8 00000000                  2534+ARDBUF   DC    V(DMSBRD) -                05030000 ? -
0006EC 00000000                  2535+AWRBUF   DC    V(DMSBWR) -                05040000 ? -
0006F0 00000000                  2536+AFINIS   DC    V(DMSFNS) -                05050000 ? -
0006F4 00000000                  2537+ASTATE   DC    V(DMSSTTE)                 05060000 ? -
0006F8 00000000                  2538+ASTATEW  DC    V(DMSSTTW)                 05070000 ? -
0006FC 00000000                  2539+APOINT   DC    V(POINT) -                 05080000 ? -
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                    2541+**        TERMINAL BUFFERS                                                  05100000

000700                              2543+          DS    0D                                                          05120000
000700 0000000060000000             2544+CONCCWS   CCW   0,0,X'60',0   CONSOLE READ AND WRITE CCW                  05130000 ?
000708 0300000020000001             2545+          CCW   3,0,X'20',1   NOP TO GET CE AND DE TOGETHER                05140000

000710 00000000                     2547+CONINBLK  DC    A(0) -                                                      05160000 ?
000714 0A                           2548+          DC    XL1'0A' -                                                   05170000
000715 86                           2549+          DC    AL1(134) -                                                  05180000
000716                              2550+CONINBUF  DS    CL134 -                                                     05190000 ?
0007A0                              2551+          DS    0D                                                          05200000
0007A0                              2552+CMNDLINE  DS    CL160 -                                                     05210000 ?
000840                              2553+          DS    0D                                                          05220000
000840 C5E7C5C340404040             2554+          DC    CL8'EXEC' -                                                 05230000
000848                              2555+CMNDLIST  DS    CL536 -                                                     05240000 ?
000A60                              2556+          DS    0D                                                          05250000
000A60                              2557+CONSTACK  DS    CL320 -                                                     05260000


                                    2559+**        SAVE AREAS                                                        05280000

000BA0                              2561+FREESAVE  DS    16F -                                                       05300000 ?
000BE0                              2562+BALRSAVE  DS    16F -                                                       05310000 ?
000C20                              2563+WAITSAVE  DS    16F -                                                       05320000 ?
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

                                  2565+** VSAM AND AMSERV CONTROL WORDS:                                        05340000
000C60                            2566+          DS    0D                                                       05350000
                                  2567+** PERCENT OF AVAILABLE USER STORAGE TO RESERVE                          05360000
                                  2568+** FOR GETVIS/FREEVIS USE WHEN RUNNING VSAM:                             05370000
000C60 0032                       2569+PCTVSAM   DC    H'50' -         50 PERCENT FOR CMS/VSAM USE              05380000 ?
000C62                            2570+          DS    1H -            RESERVED FOR FUTURE USE                  05390000
000C64                            2571+          DS    1F -            RESERVED FOR FUTURE USE                  05400000

                                  2573+** BEGINNING AND END OF "IKQLAB" (WHEN IN STORAGE):                      05420000
000C68 00FFFFFF                   2574+ADIKQLAB  DC    A(X'FFFFFF') - SET TO A(IKQLAB) WHEN IT IS IN STORAGE  05430000 ?
000C6C 00000000                   2575+NDIKQLAB  DC    A(0) -          SET TO END OF IKQLAB WHEN IN STORAGE     05440000 ?

000C70 00000000                   2577+ALOKTB    DC    A(0) -          LOCK/UNLOCK RESOURCE TABLE       @V6BE0H5 05460000 ?
000C74 00000000                   2578+ADMSVIB   DC    V(DMSVIB) -     ADDR OF VSAM INTERFACE BOOTSTRAP         05470000 ? -
000C78 00000000                   2579+AVIPWORK  DC    A(0) -          ADDRESS OF DMSVIP WORK AREA              05480000 ?
000C7C 00                         2580+VSAMFLG1  DC    X'00' -         VSAM INFORMATION FLAG                    05490000 ?
                           00080  2581+VSAMRUN   EQU   X'80' -         VSAM SYSTEM LOADED                       05500000 ?
                           00040  2582+VSJOBCAT  EQU   X'40' -         VSAM JOB CATALOG ACTIVE                  05510000 ?
                           00020  2583+VIPINIT   EQU   X'20' -         DMSVIP HAS BEEN INITIALIZED              05520000 ?
                           00010  2584+VSAMSERV  EQU   X'10' -         CMS/AMS SYSTEM LOADED (AMSERV RUNNING)   05530000 ?
                           00008  2585+VIPSOP    EQU   X'08' -         OS INTERFACE SVC 2 CALL                  05540000 ?
                           00004  2586+VIPTCLOS  EQU   X'04' -         OS 'TCLOSE' CALL                         05550000 ?
                           00002  2587+VSAMSOS   EQU   X'02' -         OS AMSERV RUNNING                        05560000 ?
000C7D                            2588+          DS    3X -            RESERVED FOR FUTURE USE                  05570000
000C80 00000000                   2589+AVSAMSYS  DC    A(0) -          ADDR OF VSAM SAVED SYSTEM                05580000 ?
000C84 00000000                   2590+AAMSSYS   DC    A(0) -          ADDR OF CMSAMS SAVED SYSTEM              05590000 ?
000C88 00000000                   2591+AVSREOJ   DC    V($$BEOJ4) -    DMSVSR ENTRY POINT FROM VSAM $$BACLOS    05600000 ? -
000C8C 00000000                   2592+AVSRWORK  DC    A(0) -          ADDR OF DMSVSR WORKAREA                  05610000 ?
000C90 00000000                   2593+ACBLIST   DC    A(0) -          ACB LIST BUILT BY OPEN/CLOSE             05620000 ?
000C94                            2594+          DS    1F              RESERVED FOR FUTURE USE          @V67CBE4 05630000
000C98 00000000                   2595+AABWSECT  DC    V(DMSABWSE)     POINTER FOR IPCS                 @V67CBE4 05640000 ? -
000C9C 00000000                   2596+ADMSZIT   DC    V(DMSZITEP)   POINTER FOR IPCS                   @V67CBE4 05650000 ? -
000CA0                            2597+          DS    0D                                                       05660000
```

```
  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                   2599+*****************************************************************@V62B0E5 05680000
                                   2600+*                                                                @V62B0E5 05690000
                                   2601+*        SECONDARY ADDRESS TABLE                                 @V62B0E5 05700000
                                   2602+*                                                                @V62B0E5 05710000
                                   2603+*****************************************************************@V62B0E5 05720000


000CA0 00000000                    2605+ADMSTRKA DC    V(DMSTRKAL)      EDF DISK BLOCK ALLOCATE       @V62B0E5 05740000 ? -
000CA4 00000000                    2606+ADMSTRKM DC    V(DMSTRKMA)      EDF DISK BLOCK MARKFUNCTION   @V62B0E5 05750000 ? -
000CA8 00000000                    2607+ADMSTRKD DC    V(DMSTRKDE)      EDF DISK BLOCK DEALLOCATE     @V62B0E5 05760000 ? -
000CAC 00000000                    2608+ADMSALG  DC    V(DMSALG)        ADDR OF RELEASE SUBROUTINE    @V62B0E5 05770000 ? -
000CB0 00000000                    2609+ASORTFST DC    V(SORTFST)       ADDR OF SORT FST SUBROUTINE   @V62B0E5 05780000 ? -
000CB4 00000000                    2610+ADEVSUP  DC    V(DMSDIOOS)      CP TO OS DEV TYPE CONV TABLE  @V62B0E5 05790000 ? -
000CB8 00000000                    2611+ADEVIND  DC    V(DMSDIGDI)      DEV CONST TABLE INDEX         @V62B0E5 05800000 ? -
000CBC 00000000                    2612+ATBLIND  DC    V(DMSDIOTI)      DEV CONSTANTS TABLE           @V62B0E5 05810000 ? -
000CC0 00000000                    2613+ABLKIND  DC    V(DMSDIOBI)      DEV BLKSIZE INDEX             @V62B0E5 05820000 ? -
000CC4 00000000                    2614+ALABELRD DC    V(DMSDIOLR)      ADDR OF LABEL READ ROUTINE    @V62B1E5 05830000 ? -
000CC8 00000000                    2615+ALABELWR DC    V(DMSDIOLW)      ADDR OF LABEL WRITE ROUTINE   @V62B1E5 05840000 ? -
000CCC 00000000                    2616+ADMSLADN DC    V(DMSLADNW)      LOCATE/ADD REQUESTED ADT.     @V62B3H2 05850000 ? -
000CD0 00000000                    2617+ADMSBLKR DC    V(DMSEBLKR)      EDF BLOCK READ ROUTINE.       @V62B5H2 05860000 ? -
000CD4 00000000                    2618+ADMSBLKW DC    V(DMSEBLKW)      EDF BLOCK WRITE ROUTINE.      @V62B5H2 05870000 ? -
000CD8 00000000                    2619+AABBREV  DC    V(ABDREV)        ABREV. RESOLVER IN DMSINA     @V62A7E5 05880000 ? -
000CDC 00000000                    2620+ADEVSUP2 DC    V(DMSDIOFB)      DEVICE SUPPORT TABLE FOR FBA  @V62B1E5 05890000 ? -
000CE0 00000000                    2621+AESTATE  DC    V(DMSSTTN)       EXTENDED PLIST STATE          @V62B0G9 05900000 ? -
000CE4 00000000                    2622+AESTATEW DC    V(DMSSTTNW)      EXTENDED PLIST STATE FOR R/W  @V62B0G9 05910000 ? -
000CE8 00000000                    2623+AEPOINT  DC    V(DMSPNTE)       EXTENDED PLIST POINT          @V62B0G9 05920000 ? -
000CEC 00000000                    2624+ATRUNC   DC    V(DMSERSTR)      FILE TRUNCATE FUNCTION        @V62B0E5 05930000 ? -
000CF0 00000000                    2625+ABAMSYS  DC    F'0'             POINTER TO CMSBAM DCSS        @V62A1B4 05940000 ?
000CF4 00000000                    2626+NUCSCBLK DC    A(0)             SCBLOCK CHAIN ANCHOR          @V6BD7G9 05950000 ?
000CF8 00                          2627+BAMFLAGS DC    X'00'            CMSBAM SHARED SEGMENT FLAGS   @V62A1B4 05960000 ?
                          00080    2628+DOSBAM   EQU   X'80'            FB-512 SUPPORT AVAILABLE      @V62A1B4 05970000 ?
000CF9 00                          2629+NUCOSFLG DC    X'0'             OS LOADER SUPPORT FLAG        @V6BE17A 05980000 ?
                          00080    2630+NUCOSRUN EQU   X'80'            OSRUN COMMAND ISSUED          @V6BE17A 05990000 ?
                          00040    2631+NUCSYSDF EQU   X'40'            $SYSLIB DEFINED BY LDR SUPRT  @V6BE17A 06000000 ?
                          00020    2632+NUCGLOBL EQU   X'20'            GLOBAL DONE BY OSRUN          @V6BE1E1 06010000 ?
                          00010    2633+NUCOSRLD EQU   X'10'            MEMBER LOADED FOR OSRUN       @V6BE1E1 06020000 ?
000CFA                             2634+NUCRSVB2 DS    XL2              RESERVED FOR FUTURE USE       @V62A1B4 06030000 ?
000CFC 00000000                    2635+ACMSZER  DC    A(0)             ADDRESS OF CMSZER SEGMENT     @V62B0E5 06040000 ?
000D00 00000000                    2636+SEGORELO DC    A(0)             RELOCATION FACTOR FOR SEGO    @V62B0E5 06050000 ?
000D04 00000000                    2637+ASSTATX  DC    A(0)             ADDR OF SHARED COPY OF SSTAT  @V62B0E5 06060000 ?
000D08 00000000                    2638+ASSTATZ  DC    A(0)             ADDR OF DUMMY 2ND SSTAT HBLK  @V62B0E5 06070000 ?
000D0C 00000000                    2639+AYSTATX  DC    A(0)             ADDR OF SHARED COPY OF YSTAT  @V62B0E5 06080000 ?
000D10 00000000                    2640+AYSTATZ  DC    A(0)             ADDR OF DUMMY 2ND YSTAT HBLK  @V62B0E5 06090000 ?
000D14 00000000                    2641+ADMSIOW  DC    V(DMSIOW)        DMSIOW                        @V62B0E5 06100000 ? -
000D18 00000000                    2642+ADBGSECT DC    V(DBGSECT)       DEBUG WORKAREA                @V62B0E5 06110000 ? -
000D1C 00000000                    2643+ADMSABW  DC    V(DMSABW)        ABEND WORK AREA               @V62B0E5 06120000 ? -
000D20 00000000                    2644+ADMSERR  DC    V(DMSERR)        DMSERR                        @V62B0E5 06130000 ? -
000D24 00000000                    2645+ADMSCWT  DC    V(DMSCWT)        DMSCWT                        @V62B0E5 06140000 ? -
000D28 00000000                    2646+ADMSCWR  DC    V(DMSCWR)        DMSCWR                        @V62B0E5 06150000 ? -
000D2C 00000000                    2647+ADMSIOWR DC    V(DMSIOWR)       DMSIOWR                       @V62B0E5 06160000 ? -
000D30 00000000                    2648+ADMSITI  DC    V(DMSITI)        DMSITI                        @V62B0E5 06170000 ? -
000D34 00000000                    2649+ADMSABN  DC    V(DMSABN)        DMSABN                        @V62B0E5 06180000 ? -
000D38 00000000                    2650+AABNGO   DC    V(DMSABNGO)      DMSABNGO                      @V62B0E5 06190000 ? -
000D3C 00000000                    2651+ALADAD   DC    V(DMSLADAD)      DMSLADAD                      @V62B0E5 06200000 ? -
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                    ASM 0201 20.35 10/25/81

000D40 00000000                   2652+ACITDB   DC    V(DMSCITDB)      DMSCITDB                        @V62B0E5 06210000 ? -
000D44 00000000                   2653+ADMSITSR DC    V(DMSITSR)       DMSITSR                         @V62B0E5 06220000 ? -
000D48 00000000                   2654+ADMSFRES DC    V(DMSFRES)       DMSFRES                         @V62B0E5 06230000 ? -
000D4C 00000000                   2655+ASTGSB   DC    V(DMSSTGSB)      DMSSTGSB                        @V62B0E5 06240000 ? -
000D50 00000000                   2656+AINTAB   DC    V(DMSINTAB)      DMSINTAB                        @V62B0E5 06250000 ? -
000D54 00000000                   2657+ADMSCAT  DC    V(DMSCAT)        DMSCAT                          @V62B0E5 06260000 ? -
000D58 00000000                   2658+ADMSCPF  DC    V(DMSCPF)        DMSCPF                          @V62B0E5 06270000 ? -
000D5C 00000000                   2659+AEXCAB   DC    V(DMSEXCAB)      ADDRESS OF EXEC ABEND RTN       @V62B0E5 06280000 ? -
000D60 00000000                   2660+NUCFSTLN DC    A(0)             FIRST LINE IN PROGRAM STACK     @V6BD7G9 06290000 ?
000D64 00000000                   2661+NUCLSTLN DC    A(0)             LAST  LINE IN PROGRAM STACK     @V6BD7G9 06300000 ?
000D68 00000000                   2662+NUCNLSTK DC    A(0)             NUMBER OF LINES IN PROG. STACK@V6BD7G9 06310000 ?
000D6C 00000000                   2663+NUCNBSTK DC    A(0)             NUMBER OF PROGRAM STACK         @V6BD7G9 06320000 ?
000D70 6F4040404040404040         2664+NUCTIEIN DC    CL8'?'           LISTING TIEIN FIELD             @V6BE17A 06330000 ?
000D78 00000000                   2665+NUCAFCHS DC    A(0)             ADDR OF OS FETCH WORK AREA      @V6BE17A 06340000 ?
000D7C 00000000                   2666+NUCCBLKS DC    F'0'             PTR TO MODS LOADED BY DMSLOS    @V6BE17A 06350000 ?
000D80 FFFFFFFFFFFFFFFF           2667+NUCLDLIB DC    18F'-1'          LIST OF GLOBALED LOADLIBS       @V6BE17A 06360000 ?
000DC8 00000000                   2668+NUCLODSV DC    F'0'             SAVE AREA FOR LOADLIB TOTALS    @V6BE17A 06370000 ?
000DCC                            2669+NUCLDIRC DS    8A(0)            PTRS TO LOADLIB DIRECTORIES     @V6BE17A 06380000 ?
000DEC 00000000                   2670+NUCAPIO  DC    V(DMSPIO)        DMSPIO ROUTINE.                 @V6BD7H2 06390000 ? -
000DF0 00000000                   2671+ATCBPTR  DC    V(BGTCB)         DOS TCB ADDRESS                 @V6BE0H5 06400000 ? -
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81

                                  2673+** FILE MANAGER MISCELLANEOUS STORAGE                                KM075 06400400

000DF4                            2675+          DS    4F             RESERVE IBM SOME SPACE TO GROW       KM075 06400800

                                  2677+** NEXT TWO WORDS MUST BE KEPT IN ORDER                              KM075 06401200
000E04 00000000                   2678+FMLSEG    DC    1A(0)          LENGTH OF FMSEG IN CMS FREE STORAGE  KM075 06401400 ?
000E08 00000000                   2679+FMASEG    DC    1A(0)          ADDRESS OF FMSEG                     KM075 06401600 ?
                            00080 2680+FMRELOAD EQU   X'80'          FMSEG SHOULD BE FRETTED/RELOADED     KS077 06401800 ?
                                    .
                                  2682+** NEXT THREE WORDS MUST BE KEPT IN ORDER                            KM075 06402200
000E0C 00000000                   2683+FMABNADD DC    1A(0)          ADDRESS OF FM ABEND RECOVERY ROUTINEKM075 06402400
000E10 00000000                   2684+FMWORKL  DC    1A(0)          LENGTH OF FM WORK AREA IN DBL WORDS  KM075 06402600 ?
000E14 00000000                   2685+FMWORKA  DC    1A(0)          ADDRESS OF FM WORK AREA              KM075 06402800 ?
                                  2686+** BITS DEFINED IN HIGH-ORDER BYTE OF 'FMWORKA'                      KM075 06403000
                            00080 2687+FROMFREE EQU   X'80'          WORK AREA CAME FROM CMS FREE STORAGEKM075 06403200 ?

                                  2689+** FILE MANAGER TRACE TABLE INFORMATION (MUST BE KEPT IN ORDER)      KM075 06403600
000E18 00000000                   2690+FMTRSTRT DC    1A(0)          BEGINNING OF TRACE TABLE             KM075 06403800 ?
000E1C 00000000                   2691+FMTREND  DC    1A(0)          END OF TRACE TABLE                   KM075 06404000 ?
000E20 00000000                   2692+FMTRPTR  DC    1A(0)          ADDRESS OF NEXT TRACE TABLE ENTRY    KM075 06404200 ?

                                  2694+** VMCF MISCELLANEOUS STORAGE                                        KM075 06404600

                                  2696+** NEXT TWO WORDS SHOULD BE KEPT IN ORDER                            KM075 06405000
000E24 00000000                   2697+CMSVMCFH DC    1A(0)          ADDRESS OF CURRENT VMCF EXTERNAL     KM075X06405200 ?
                                     +                             INTERRUPT HEADER                     KM075 06405400
000E28 00000000                   2698+CMSVMCFL DC    1A(0)          LENGTH OF CURRENT VMCF HEADER        KM075 06405600
000E30                            2699+          DS    0D               ALIGN END OF NUCON               @V6BD7G9 06410000
                                  2700+          POP   PRINT                                             @V6BD739 06420000
```

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.35 10/25/81

LOC OBJECT CODE ADDR1 ADDR2 STMT SOURCE STATEMENT ASM 0201 20.35 10/25/81

```
                         2703           REGEQU                                  01099000
                         2704+          PUSH  PRINT                             00002200
                         2705+*                                                 00003000
                         2706+****      SYMBOLIC REGISTER EQUATES                00004000
                         2707+*                                                 00005000

                         2709+* GENERAL PURPOSE REGISTERS                       00007000

                  00000  2711+R0        EQU   0                                 00009000 ?
                  00001  2712+R1        EQU   1                                 00010000 ?
                  00002  2713+R2        EQU   2                                 00011000 ?
                  00003  2714+R3        EQU   3                                 00012000 ?
                  00004  2715+R4        EQU   4                                 00013000 ?
                  00005  2716+R5        EQU   5                                 00014000 ?
                  00006  2717+R6        EQU   6                                 00015000 ?
                  00007  2718+R7        EQU   7                                 00016000 ?
                  00008  2719+R8        EQU   8                                 00017000 ?
                  00009  2720+R9        EQU   9                                 00018000 ?
                  0000A  2721+R10       EQU   10                                00019000 ?
                  0000B  2722+R11       EQU   11                                00020000 ?
                  0000C  2723+R12       EQU   12                                00021000 ?
                  0000D  2724+R13       EQU   13                                00022000 ?
                  0000E  2725+R14       EQU   14                                00023000 ?
                  0000F  2726+R15       EQU   15                                00024000 ?

                         2728+* FLOATING POINT REGISTERS                        00026000

                  00000  2730+F0        EQU   0                                 00028000 ?
                  00002  2731+F2        EQU   2                                 00029000 ?
                  00004  2732+F4        EQU   4                                 00030000 ?
                  00006  2733+F6        EQU   6                                 00031000 ?

                         2735+* EXTENDED CONTROL REGISTERS                      00033000

                  00000  2737+C0        EQU   0                                 00035000 ?
                  00001  2738+C1        EQU   1                                 00036000 ?
                  00002  2739+C2        EQU   2                                 00037000 ?
                  00003  2740+C3        EQU   3                                 00038000 ?
                  00004  2741+C4        EQU   4                                 00039000 ?
                  00005  2742+C5        EQU   5                                 00040000 ?
                  00006  2743+C6        EQU   6                                 00041000 ?
                  00007  2744+C7        EQU   7                                 00042000 ?
                  00008  2745+C8        EQU   8                                 00043000 ?
                  00009  2746+C9        EQU   9                                 00044000 ?
                  0000A  2747+C10       EQU   10                                00045000 ?
                  0000B  2748+C11       EQU   11                                00046000 ?
                  0000C  2749+C12       EQU   12                                00047000 ?
                  0000D  2750+C13       EQU   13                                00048000 ?
                  0000E  2751+C14       EQU   14                                00049000 ?
                  0000F  2752+C15       EQU   15                                00050000 ?
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.35 10/25/81
                                    2754+         POP   PRINT                                        00051100
                                    2755          END   ,                  CIAMDBMS                  01100000
022980 4040404040404040                2756                =CL8' '
022988 0000000C                        2757                =AL4(PORTSECL)                                    1962
02298C 00000007                        2758                =F'7'
022990 000000FF                        2759                =X'000000FF'
022994 0003                            2760                =AL2(VMCMSENR)                                    2011
022996 00D1                            2761                =X'00D1'
022998 00D2                            2762                =X'00D2'
02299A 00D3                            2763                =X'00D3'
02299C 1004                            2764                =X'1004'
```

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POS.ID	REL.ID	FLAGS	ADDRESS
0001	0001	0C	020034
0001	0001	0C	020150
0001	0001	0C	0205A0
0001	0001	0C	020774
0001	0001	0C	021448
0001	0001	0C	021540
0001	0001	0C	021548
0001	0001	0C	021590
0001	0001	0C	0215B8
0001	0001	0C	0215E8
0001	0002	1C	0200E4
0001	0003	1C	020664
0001	0004	1C	0214E8
0001	0005	0C	0214EC
0001	0005	0C	0214F0
0001	0005	0C	0214F4

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```
SYMBOL    LEN   VALUE   DEFN    REFERENCES
ADDFIRST 00002 000201A0 00177  00158
AIDMS    00004 000214E8 00784  00333
AIEAEND  00004 000214F4 00788  01746
AIEASTRT 00004 000214F0 00787  01743
AIEAVMCF 00004 000214EC 00786  01730
AUTHPARM 00040 00021530 00799  00090 00811
AUTHSPEC 00040 00021558 00814  00457 00825
BIT0     00001 00000080 00938  00318 00947
BIT1     00001 00000040 00939  00948
BIT2     00001 00000020 00940  00949
BIT3     00001 00000010 00941  00950
BIT4     00001 00000008 00942  00951
BIT5     00001 00000004 00943  00952
BIT6     00001 00000002 00944  00953
BIT7     00001 00000001 00945  00954
CCB$ARGS 00004 0000000C 01890  00306 00332
CCB#ARGS 00004 00000008 01888  00312
CCBBR10  00002 00000074 01899  00334
CCBDMLSN 00004 000001C4 01953  01555
CCBDPORT 00001 00000087 01906  00098 00245 00453 00459 00512 00634 00642 01025 01422 01450 01469 01476
CCBERRST 00004 000000F8 01936  01549
CCBLEN   00004 00000000 01883  00297 00350 00452 00551 00644
CCBPGM   00008 000000F0 01935  01538
CCBUPORT 00001 0000007E 01904  00097 00246 00454 00460 00635 01021 01430
CCBUVMID 00008 00000076 01903  00099 00247 00455 00461 00636 01017 01426 01435 01446 01472
CDBS$DA  00008 00020848 00772  00771 00963 01696
CDBS$DAE 00001 00021700 00962  00771 01699
CDBS$FM  00004 000214F8 00789  00038 00609
CDBSDEND 00001 0002297E 01873  01872
CDBSPLG1 00001 000216C0 00946  00030 00105 00411 00481 00601 00680 00682 00733 00738 00745 00752 00760 01122 01142 01214
                               01247 01666 01859
CDBSINIT 00002 00020000 00007  00005
CDBSPORT 00001 00000000 01958  00054 00093 00148 00165 00170 00180 00187 00214 00270 00279 00285 00429 00509 00529 00626
                               01005 01962
CDBSPOST 00002 0002011C 00112  00110
CDBSTERM 00002 0002056E 00580  00039 00578
CDBSTOL  00004 000216BC 00936  00369 01405
CDBSTOUT 00002 00020740 00710  00708 00808
CDBSVMCM 00040 00021506 00796  00254 00868 00868
CHKPAECB 00002 000204F0 00528  00497 00500 01274 01487
CIAMCB   00001 00000000 01876  00096 00222 00451 00510 00550 00627 00641 01006 01410 01457 01521 01889 01932 01956
CIAMDBMS 00001 00020000 00002  00019 00022 00124 00127 00592 00595 00722 00725
CLEAR    00002 000202B8 00286  00264
CONSTACK 00320 00000A60 02557  02324
CPULOG   00008 00000080 02166  02167
C0       00001 00000000 02737  00076 00076 00080 00080 00679 00679 00754 00754 00756 00756
DIAGTIME 00024 00000280 02194  02195
DISABLE  00001 00021500 00791  00210 00266 00424 00502 00570 00665
DMLEXEC  00002 00020224 00208  00361 00378 00395 00531 00575 01003 01077 01092 01107
DMLEXECB 00004 00021502 00794  00193 00372 00372 00374
DMPTITLE 00132 000003BC 02232  02230
DMSA0065 00002 00021730 00973  00968
DMSA0092 00002 0002177E 00986  00980
DMSA0124 00002 000217B6 01000  00995
DMSA0151 00002 00021826 01015  01009
```

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DMSA0214	00002	000218A0	01042	01036
DMSA0246	00002	000218EA	01057	01051
DMSA0278	00002	0002192E	01072	01066
DMSA0310	00002	00021972	01087	01081
DMSA0342	00002	000219B4	01102	01096
DMSA0374	00002	000219E4	01116	01111
DMSA0401	00002	00021A38	01130	01124
DMSA0433	00002	00021AA6	01150	01144
DMSA0482	00002	00021B4A	01174	01168
DMSA0538	00002	00021BCE	01195	01189
DMSA0594	00002	00021C7E	01222	01216
DMSA0657	00002	00021D38	01255	01249
DMSA0720	00002	00021DE4	01286	01280
DMSA0776	00002	00021E80	01313	01307
DMSA0832	00002	00021F26	01341	01335
DMSA0895	00002	00021FBA	01369	01363
DMSA0951	00002	00022010	01390	01385
DMSA0978	00002	00022084	01403	01397
DMSA1010	00002	000220E8	01419	01413
DMSA1066	00002	0002216C	01444	01438
DMSA1115	00002	00022214	01466	01460
DMSA1185	00002	000222DE	01498	01492
DMSA1255	00002	000223B4	01531	01525
DMSA1339	00002	00022488	01571	01565
DMSA1395	00002	0002250E	01596	01590
DMSA1451	00002	0002258A	01617	01612
DMSA1478	00002	00022614	01630	01624
DMSA1534	00002	0002268A	01651	01646
DMSA1561	00002	000226AE	01663	01658
DMSA1588	00002	000226E0	01674	01669
DMSA1615	00002	000226FE	01684	01679
DMSA1642	00002	00022724	01694	01688
DMSA1691	00002	00022754	01709	01704
DMSA1718	00002	00022768	01718	01713
DMSA1745	00002	000227A0	01728	01722
DMSA1777	00002	000227CA	01741	01735
DMSA1826	00002	000227F4	01756	01751
DMSA1853	00002	0002281A	01766	01760
DMSA1902	00002	00022844	01781	01776
DMSA1929	00002	0002286A	01791	01785
DMSA1978	00002	00022894	01806	01801
DMSA2005	00002	000228BA	01816	01810
DMSA2054	00002	000228E4	01831	01826
DMSA2081	00002	0002290A	01841	01835
DMSA2130	00002	0002293E	01856	01851
DMSA2157	00002	00022976	01867	01862
DMSC0092	00001	00000081	00987	00982
DMSC0214	00001	00000080	01043	01038
DMSC0246	00001	00000080	01058	01053
DMSC0278	00001	00000081	01073	01068
DMSC0310	00001	00000081	01088	01083
DMSC0342	00001	00000081	01103	01098
DMSC0401	00001	00000081	01131	01126
DMSC0978	00001	000000C1	01404	01399
DMSC1745	00001	000000C0	01729	01724

SYMBOL	LEN	VALUE	DEFN	REFERENCES
DMSL0065	00001	00000028	00972	00970
DMSL0092	00001	00000040	00985	00983
DMSL0124	00001	0000002E	00999	00997
DMSL0151	00001	0000004C	01014	01012
DMSL0214	00001	00000037	01041	01039
DMSL0246	00001	00000038	01056	01054
DMSL0278	00001	00000031	01071	01069
DMSL0310	00001	00000031	0108C	01084
DMSL0342	00001	0000002F	01101	01099
DMSL0374	00001	0000001E	01115	01113
DMSL0401	00001	00000041	01129	01127
DMSL0433	00001	00000042	01149	01147
DMSL0482	00001	00000061	01173	01171
DMSL0538	00001	00000042	01194	01192
DMSL0594	00001	00000058	01221	01219
DMSL0657	00001	0000004F	01254	01252
DMSL0720	00001	0000004D	01285	01283
DMSL0776	00001	0000004F	01312	01310
DMSL0832	00001	00000051	01340	01338
DMSL0895	00001	0000003E	01368	01366
DMSL0951	00001	00000024	01389	01387
DMSL0978	00001	00000066	01402	01400
DMSL1010	00001	00000041	01418	01416
DMSL1066	00001	00000036	01443	01441
DMSL1115	00001	00000065	01465	01463
DMSL1185	00001	0000005D	01497	01495
DMSL1255	00001	00000062	01530	01528
DMSL1339	00001	00000054	01570	01568
DMSL1395	00001	0000003E	01595	01593
DMSL1451	00001	0000004A	01616	01614
DMSL1478	00001	0000006C	01629	01627
DMSL1534	00001	00000044	01650	01648
DMSL1561	00001	00000015	016C2	01660
DMSL1588	00001	0000001E	01673	01671
DMSL1615	00001	00000012	01683	01681
DMSL1642	00001	00000010	01693	01691
DMSL1691	00001	0000000D	01708	01706
DMSL1718	00001	00000009	01717	01715
DMSL1745	00001	0000002C	01727	01725
DMSL1777	00001	00000010	01740	01738
DMSL1826	00001	00000006	01755	01753
DMSL1853	00001	00000010	01765	01763
DMSL1902	00001	00000006	01780	01778
DMSL1929	00001	00000010	01790	01788
DMSL1978	00001	00000006	01805	01803
DMSL2005	00001	00000010	01815	01813
DMSL2054	00001	00000006	01830	01828
DMSL2081	00001	00000010	01840	01838
DMSL2130	00001	00000011	01855	01853
DMSL2157	00001	00000024	018E6	01864
DMST0065	00001	00021706	00970	00972
DMST0092	00001	0002173D	00983	00985
DMST0124	00001	0002178E	00997	00999
DMST0151	00001	000217D8	01012	01014
DMST0214	00001	00021867	01039	01041

```
SYMBOL    LEN   VALUE   DEFN    REFERENCES
DMST0246 00001 000218B1 01054  01056
DMST0278 00001 000218FB 01069  01071
DMST0310 00001 0002193F 01084  01086
DMST0342 00001 00021983 01099  01101
DMST0374 00001 000219C4 01113  01115
DMST0401 00001 000219F5 01127  01129
DMST0433 00001 00021A62 01147  01149
DMST0482 00001 00021AE7 01171  01173
DMST0538 00001 00021B8B 01192  01194
DMST0594 00001 00021C24 01219  01221
DMST0657 00001 00021CE8 01252  01254
DMST0720 00001 00021D95 01283  01285
DMST0776 00001 00021E2F 01310  01312
DMST0832 00001 00021ED4 01338  01340
DMST0895 00001 00021F7B 01366  01368
DMST0951 00001 00021FEA 01387  01389
DMST0978 00001 0002201D 01400  01402
DMST1010 00001 000220A5 01416  01418
DMST1066 00001 00022134 01441  01443
DMST1115 00001 000221AD 01463  01465
DMST1185 00001 0002227F 01495  01497
DMST1255 00001 00022351 01528  01530
DMST1339 00001 00022433 01568  01570
DMST1395 00001 000224CF 01593  01595
DMST1451 00001 0002253E 01614  01616
DMST1478 00001 000225A7 01627  01629
DMST1534 00001 00022644 01648  01650
DMST1561 00001 00022698 01660  01662
DMST1588 00001 000226C0 01671  01673
DMST1615 00001 000226EA 01681  01683
DMST1642 00001 00022712 01691  01693
DMST1691 00001 00022746 01706  01708
DMST1718 00001 0002275E 01715  01717
DMST1745 00001 00022773 01725  01727
DMST1777 00001 000227B8 01738  01740
DMST1826 00001 000227EC 01753  01755
DMST1853 00001 00022808 01763  01765
DMST1902 00001 0002283C 01778  01780
DMST1929 00001 00022858 01788  01790
DMST1978 00001 0002288C 01803  01805
DMST2005 00001 000228A8 01813  01815
DMST2054 00001 000228DC 01828  01830
DMST2081 00001 000228F8 01838  01840
DMST2130 00001 0002292C 01853  01855
DMST2157 00001 00022950 01864  01866
DONE1    00004 00020310 00318  00313
DUMPIT   00002 00022692 01657  00734 00991 01047 01062 01408
DUMPSTOR 00001 00000010 00950  00733 00760 01666 01859
ENABLE   00001 00021501 00792  00031 00219 00284 00432 00526 00573 00668 01141
ERR002   00002 00021736 00979  00103
ERR005   00002 00021860 01035  00164
ERR006   00002 000218AA 01050  00179
ERR007   00002 000218F4 01065  00251
ERR008   00002 00021938 01080  00301
ERR009   00002 0002197C 01095  00354
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.35 10/25/81

```
ERR011   00002 000219EA 01121 00421
ERR012   00002 00021A48 01139 00426
ERR013   00002 00021AD0 01165 00442
ERR014   00002 00021C00 01211 00466
ERR015   00002 00021CC4 01244 00478
ERR018   00002 00021EB4 01331 00547
ERR019   00002 00021F66 01362 00562
ERR021   00002 00022016 01396 00757
ERR026   00002 0002241E 01564 00383
ERR027   00002 000224BA 01589 00655
ERR029   00002 00022592 01623 00524
FINISH   00004 000216A0 00929 00356
FIRST    00002 000201B4 00186 00154
FMABNADD 00004 00000E0C 02683 00037 00044 00615
FMRUN    00001 00000010 02434 00043 00613
FORCEINI 00001 00000004 00952 00680 00738
FOREVER  00001 000216C8 00956 00075 00211 00365 00377 00753
FPRLOG   00008 00000160 02178 02229
FREEFRET 00008 000216D0 00957 00440 00517 00521 00561 00654 01197 01200 01203 01371 01374 01377 01598 01601 01604 01632
                               01635 01638
FREEMEM  00002 00020522 00549 01359
GPRLOG   00004 00000180 02179 02225
IEAVMCF  00001 00000000 00785 00786 00787 00788
IHB0009B 00004 000200E4 00084 00085
IHB0041B 00004 00020664 00676 00677
INITSA   00004 000206F8 00704 00013 00015 00696 01768 01771
INTRNXIT 00002 000205C0 00604 01620 01654 01870
IPLPSW   00008 00000000 02138 02141
KSUFLAGS 00001 000005E5 02430 00043 00613
KSURSV   00008 00000000 02029 02030
KSUSECT  00001 00000000 02028 02052
LENVMCP  00001 00000028 00793 00796 00799 00814 00828 00842 00860 00874 00888 00902 00916
LOGOFF   00001 00000002 00953 00682 00745
LOOP1    00006 00020082 00056 00061
LOOP2    00002 000205E4 00629 00671
LOWSAVE  00160 000000C0 02176 02226
MSG001   00002 00021700 00967 00032
MSG003   00002 00021788 00994 00106
MSG004   00002 000217BE 01008 00151
MSG010   00002 000219BE 01110 00364
MSG016   00002 00021D7E 01277 00535
MSG017   00002 00021E18 01304 00536
MSG020   00002 00021FE4 01384 00602
MSG022   00002 00022090 01411 00638
MSG023   00002 0002218E 01458 00482
MSG025   00002 00022328 01524 00339
MSG028   00002 00022538 01611 00739
MSG030   00002 0002263E 01645 00746
NEXT1    00004 000202F0 00308 00316
NOPORTCD 00004 000216B4 00934 00496 01161
NOSTORCD 00004 000216B8 00935 01207
NOTACTIV 00002 0002065A 00670 00631
NOWORK   00002 00020376 00363 00213
NUCON    00001 00000000 02058 00036 00608
NULLPTR  00004 000214FC 00790 00063 00065 00066 00070 00153 00171 00188 00216 00218 00280 00447
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.35 10/25/81

```
PA$ECB    00004 0002143C 00776 00064 00064 00156 00807 00807
PA$ERR    00001 00000008 00951 00411 00481 01122 01142 01214 01247
PA$FIRST  00004 0002144C 00779 00065 00153 00178 00183 00190 00212 00215 00216 00277
PA$FLST   00004 00021448 00778 00425 00431 00513 00514 00571 00572 00666 00667 01482
PA$LAST   00004 00021450 00780 00066 00163 00169 00191 00218 00267 00273 00278
PA$PORT   00012 0002143C 00775 00052 00092 00623 00776
PA$RECV   00040 00021580 00828 00412 00839
PA$REPLY  00040 000215A8 00842 00469 00853
PA$WAREA  00140 00021454 00781 00067
PORT$CB@  00004 00000008 01961 00059 00068 00094 00149 00221 00296 00309 00349 00445 00448 00512 00565 00565 00568 00630
                               00633 00660 00660 00663
PORT$ECB  00004 00000000 01959 00056 00056 00263 00530 00564 00564 00659 00659 00822
PORT$NR   00004 00000004 01960 00058 00063 00070 00166 00171 00181 00188 00215 00271 00280 00447 00513 00571 00666
PORTAUTH  00002 000203D6 00397 00261
PORTBASE  00001 00020848 00773 00050 00624 00777 00778
PORTRCB   00008 000215D0 00855 00434 00446 00452 00496 00499 00836 00836 00850 00850 01135 01161 01176 01207 01240 01273
PORTSECL  00001 0000000C 01962 00051 00052 00057 00511 00622 02757
POST$EX   00002 000201CA 00199 00173 00184
POSTSA    00004 000201DC 00205 00118 00120 01793 01796
RECVCB    00040 00021650 00902 00290 00913
REINIT    00002 0002004C 00029 00681
REJECT    00002 000203B0 00380 00257
REMPORT   00002 00020504 00537 01301 01328
REMPORTF  00004 000204FC 00535 00357
REMPORTR  00004 00020500 00536 00359
REPLCB    00040 00021678 00916 00343 00927
REPLYPA   00002 0002047C 00468 01136 01162 01208 01241
REQNEW    00002 000202A6 00276 00269
RESTCRO   00008 000216F8 00961 00077 00679
RETOCMS   00002 000206DC 00694 00683
RJCTCB    00040 00021600 00874 00385 00885
ROLLBACK  00004 000216A4 00930 00358
R0        00001 00000000 02711 00036 00045 00434 00435 00436 00517 00551 00553 00554 00608 00619 00644 00646 00647
R1        00001 00000001 02712 00090 00091 00100 00147 00243 00244 00248 00290 00291 00298 00332 00343 00344 00351 00385
                               00386 00392 00412 00413 00418 00440 00448 00450 00457 00458 00463 00469 00470 00475 00517
                               00521 00539 00540 00544 00555 00561 00566 00567 00569 00621 00625 00637 00648 00654 00661
                               00662 00664 00731 00736 00743 00750 01140 01166 01212 01245 01278 01305 01332
R10       00001 0000000A 02721 00014 00016 00020 00022 00024 00119 00121 00125 00127 00129 00335 00336 00337 00587 00589
                               00593 00595 00597 00717 00719 00723 00725 00727
R10SAV    00004 000214E0 00782 00335 00337
R11       00001 0000000B 02722 00022 00023 00024 00024 00026 00127 00128 00129 00129 00131 00595 00596 00597 00597 00599
                               00725 00726 00727 00727 00729
R12       00001 0000000C 02723 00022 00025 00026 00026 00127 00130 00131 00131 00595 00598 00599 00599 00725 00728 00729
                               00729
R13       00001 0000000D 02724 00696
R14       00001 0000000E 02725 00032 00151 00334 00339 00364 00383 00524 00562 00602 00638 00655 00757 00976 01032 01119
                               01381 01393 01436 01455 01519 01560 01586 01608 01642
R15       00001 0000000F 02726 00102 00102 00250 00250 00300 00300 00333 00336 00353 00353 00368 00369 00370 00420 00420
                               00440 00441 00441 00465 00465 00477 00477 00521 00522 00522 00546 00546 00559 00559 00561
                               00652 00652 00654 00695 00988 01074 01089 01104 01132 01213 01246 01333
R15SAV    00004 000214E4 00783 01213 01224 01246 01257 01333 01343
R2        00001 00000002 02713 00051 00061 00092 00093 00095 00212 00214 00268 00271 00273 00277 00278 00279 00281 00285
                               00428 00529 00572 00622 00667 00671
R3        00001 00000003 02714 00052 00094 00096 00100 00163 00165 00168 00178 00180 00181 00182 00221 00222 00449 00550
                               00552 00555 00623 01044 01059 01521 01559
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.35 10/25/81

```
R4        00001 00000004 02715  00050 00054 00057 00061 00069 00071 00254 00255 00624 00626 00671 01489 01518 01522 01559
                                01562 01585
R5        00001 00000005 02716  00057 00058 00067 00063 00147 00148 00150 00157 00166 00169 00170 00172 00183 00187 00189
                                00190 00191 00267 00270 00272 00305 00311 00311 00312 00444 00444 00445 00446 00453 00627
                                00633 00641 00645 00648 01005 01028 01031 01410 01454
R6        00001 00000006 02717  00037 00038 00039 00044 00053 00053 00059 00060 00060 00149 00156 00157 00306 00308 00310
                                00315 00315 00318 00609 00615 01006 01031
R7        00001 00000007 02718  00308 00309 00310 00425 00429 00431 00449 00462 00509 00511 00511 00514 00515 01480 01515
R8        00001 00000008 02719  00450 00451 00463 00510 00515 01457 01486
R9        00001 00000009 02720  01138 01140 01160 01164 01166 01187 01210 01212 01239 01243 01245 01272 01276 01278 01300
                                01303 01305 01327 01330 01332 01358
SAVECRO   00008 000216F0 00960  00076 00077 00078 00079 00080 00754 00755 00756
SAVETOD   00008 000216E0 00958  00367
SKIPFATA  00002 000226E4 01677  01667
SKIPFRET  00002 00020632 00657  00643
STEP1J    00002 000202B4 00283  00274
SYSINIT   00001 00000080 00947  00105
SYSTERM   00001 00000020 00949  00601
SYSTOUT   00001 00000040 00948  00680 00752
TERMSA    00004 00020694 00691  00586 00588 01818 01821
TMPTOD    00008 000216E8 00959  00366 00367 00368 00370 00371
TOUTEXIT  00002 000207E4 00759  00751 01860
TOUTSA    00004 000207FC 00768  00716 00718 01843 01846
UNAUTHCB  00040 00021628 00888  00539 00566 00621 00661 00899
UNSTACK   00002 00020252 00242  00533
UNSTKCB   00040 000215D8 00860  00243 00871
VMCFERR1  00004 000216A8 00931  00499 01135
VMCFERR2  00004 000216AC 00932  01240
VMCFERR3  00004 000216B0 00933  01273
VMCMFUNC  00002 00000002 02009  00256
VMCMHDR   00001 00000000 02000  00255 01489 01522 01562 02024
VMCMSENR  00001 00000003 02011  02760
VMCMSNKT  00001 00000007 02017  00260 00294 00347 00390 00416 00473 00542 01501 01534 01581
VMCMSRCT  00001 00000006 02016  00293 00346 00389 00415 00454 00472 00541 01511 01545 01574
VMCMUMID  00002 00000004 02015  00292 00345 00388 00414 00471
VMCMUSE   00008 00000020 02023  00356 00358 01504 01552
VMCMUSER  00008 00000008 02018  00295 00348 00391 00417 00455 00474 00543 01507 01541 01577
VMCPARM   00001 00000000 01965  00091 00244 00291 00344 00386 00413 00458 00470 00540 00567 00625 00662 01138 01164 01210
                                01243 01276 01303 01330 01997
VMCPAUTH  00001 00000000 01974  00802 00817
VMCPAUTS  00001 00000080 01970  00815
VMCPLENA  00004 00000014 01993  00297 00350
VMCPRECV  00001 00000005 01979  00831 00905
VMCPREPL  00001 00000007 01981  00845 00919
VMCPRJCT  00001 0000000B 01985  00877
VMCPSNKT  00001 00000007 01990  00097 00246 00294 00347 00390 00416 00460 00473 00542 00635 01156 01183 01231 01264 01292
                                01319 01350
VMCPSRCT  00001 00000006 01989  00098 00245 00293 00346 00389 00415 00459 00472 00541 00568 00634 00663 01235 01268 01296
                                01323 01354
VMCPUAUT  00001 00000001 01975  00891
VMCPUMID  00002 00000004 01988  00292 00345 00388 00414 00471
VMCPUNST  00001 0000001F 01986  00863
VMCPUSER  00008 00000008 01991  00247 00295 00348 00391 00417 00461 00474 00543 00636 01152 01179 01227 01260 01288 01315
                                01346
VMCPVADA  00004 00000010 01992  00296 00349 00462
```

```
SYMBOL     LEN    VALUE    DEFN     REFERENCES

=CL8' '    00008 00022980 02756   00099 01435
=AL4(PORTSECL)
           00004 00022988 02757   00069
=F'7'      00004 0002298C 02758   00435 00553 00646
=X'000000FF'
           00004 00022990 02759   00630
=AL2(VMCMSENR)
           00002 00022994 02760   00256
=X'00D1'   00002 00022996 02761   00731
=X'00D2'   00002 00022998 02762   00736
=X'00D3'   00002 0002299A 02763   00743
=X'1004'   00002 0002299C 02764   00750
```

ASM 0201 20.35 10/25/81

```
NO STATEMENTS FLAGGED IN THIS ASSEMBLY
HIGHEST SEVERITY WAS    0
OPTIONS FOR THIS ASSEMBLY
  ALIGN, ALOGIC, BUFSIZE(STD), NODECK, ESD, FLAG(0), LINECOUNT(55), LIST, NOMCALL, YFLAG, WORKSIZE(2097152)
  NOMLOGIC, NUMBER, OBJECT, NORENT, RLD, STMT, NOLIBMAC, TERMINAL, NOTEST, XREF(SHORT)
  SYSPARM()
WORK FILE BUFFER SIZE/NUMBER = 7294/ 1
TOTAL RECORDS READ FROM SYSTEM INPUT       1100
TOTAL RECORDS READ FROM SYSTEM LIBRARY     3489
TOTAL RECORDS PUNCHED                       157
TOTAL RECORDS PRINTED                      3439
```

Appendix H

CDBSVMCF - COMMUNICATIONS HANDLER DATABASE MACHINE

```
********************************************************************************************************************************
**********************************          KANSAS STATE UNIVERSITY VM/SP CMS                 **********************************
**********************************          KANSAS STATE UNIVERSITY VM/SP CMS                 **********************************
********************************************************************************************************************************
** VM/370 VERSION 01 LEVEL 01 PLC 03 ****************** CDBSVMCF **** vmf.asm  ************************** 10/25/81 **** 20:31:26 **
** VM/370 VERSION 01 LEVEL 01 PLC 03 ****************** CDBSVMCF **** vmf.asm  ************************** 10/25/81 **** 20:31:26 **
```

```
KK         KK   SSSSSSSSS   UU         UU
KK       KK     SSSSSSSSSSS UU         UU
KK     KK       SS        SS UU         UU
KK   KK         SS           UU         UU
KK KK           SSS          UU         UU
KKKKK            SSSSSSSSS   UU         UU
KKKKK             SSSSSSSSS  UU         UU
KK   KK                 SSS  UU         UU
KK     KK               SS   UU         UU
KK       KK    SS       SS   UU         UU
KK         KK  SSSSSSSSSSS   UUUUUUUUUUUU
KK           KK  SSSSSSSSS     UUUUUUUUUU
```

```
          VV        VV    MM         MM
          VV        VV    MMM       MMM
          VV        VV    MMMM     MMMM
          VV        VV    MM MM   MM MM
  3333333333      777777777777MMMM  000000000
 333333333333     77777777777  MM  0000000000
33       VV33     77VV    77      00MM      00
          V33      VV    77M      00MM      00
           33      VV   77MM      00MM      00
        3333VV  VV     77 MM      00MM      00
        3333 VVVV      77 MM      00MM      00
           33 VV       77 MM      00MM      00
           33          77         00        00
33         33          77         00        00
333333333333           77          0000000000
 3333333333            77           00000000
```

```
 CCCCCCCCCC   DDDDDDDDD     BBBBBBBBBBB    SSSSSSSSS   VV        VV  MM        MM   CCCCCCCCCC   FFFFFFFFFFFF
CCCCCCCCCCCC  DDDDDDDDDD    BBBBBBBBBBBBB  SSSSSSSSSSS  VV        VV  MMM      MMM  CCCCCCCCCCCC  FFFFFFFFFFFF
CC        CC  DD       DD   BB         BB  SS          VV        VV  MMMM    MMMM  CC          CC  FF
CC            DD        DD  BB         BB  SS          VV        VV  MM MM  MM MM  CC              FF
CC            DD        DD  BB        BB   SSS         VV        VV  MM  MMMM  MM  CC              FF
CC            DD        DD  BBBBBBBBBB     SSSSSSSSS   VV        VV  MM   MM   MM  CC              FFFFFFFF
CC            DD        DD  BBBBBBBBBB      SSSSSSSSS  VV        VV  MM        MM  CC              FFFFFFFF
CC            DD        DD  BB        BB          SSS   VV      VV   MM        MM  CC              FF
CC            DD        DD  BB         BB          SS    VV    VV    MM        MM  CC              FF
CC        CC  DD       DD   BB         BB  SS         SS    VV  VV     MM        MM  CC          CC  FF
CCCCCCCCCCCC  DDDDDDDDDD    BBBBBBBBBBBBB  SSSSSSSSSSS     VVVV      MM        MM  CCCCCCCCCCCC  FF
 CCCCCCCCCC   DDDDDDDDD     BBBBBBBBBBB    SSSSSSSSS       VV       MM        MM   CCCCCCCCCC   FF
```

```
vv        vv  mm        mm  fffffffffff
vv        vv  mmm      mmm  fffffffffff
vv        vv  mmmm    mmmm  ff
vv        vv  mm mm  mm mm  ff
vv        vv  mm  mmmm  mm  ff
vv        vv  mm   mm   mm  fffffff
vv        vv  mm        mm  fffffff
 vv      vv   mm        mm  ff
  vv    vv    mm        mm  ff
   vv  vv     mm        mm  ff
    vvvv      mm        mm  ff
     vv       mm        mm  ff
```

```
 aaaaaaaaaa    SSSSSSSSS   mm        mm
aaaaaaaaaaaa  SSSSSSSSSSS  mmm      mmm
aa        aa  SS        SS  mmmm    mmmm
aa        aa  SS            mm mm  mm mm
aa        aa  SSS           mm  mmmm  mm
aaaaaaaaaaaa   SSSSSSSS     mm   mm   mm
aaaaaaaaaaaa    SSSSSSSS    mm        mm
aa        aa        SSS     mm        mm
aa        aa          SS    mm        mm
aa        aa  SS      SS    mm        mm
aa        aa  SSSSSSSSSSS   mm        mm
aa        aa   SSSSSSSSS    mm        mm
```

```
UPDATING 'CDBSVMCF ASSEMBLE D1' WITH 'CDBSVMCF UPDT0001 D1'          UPDATE LOG -- PAGE      1

      ./ R 1000 $ 1100
DELETING...     VMCF     TITLE 'OS/VMCF EXTERNAL INTERRUPT HANDLER AND SVC ROUTINE'     00001000
INSERTING...    VMCF     TITLE 'OS/VMCF Assembly control constants'                    00001100
      ./ I 23000 $ 23100
INSERTING...             TITLE 'OS/VMCF CMS Initilization Routine'                     00023100
      ./ I 42000 $ 42100
INSERTING...             TITLE 'OS/VMCF CMS Termination Routine'                       00042100
      ./ I 66000 $ 66100
INSERTING...             TITLE 'OS/VMCF SVC Interrupt Handler'                         00066100
      ./ I 386000 $ 386050 50
INSERTING...             ANOP  (NOT &CMS).NOXIT                                        00386050
                         CLC   VMCPUSE,=CL8'EXTERNAL'  DID USER WISH TO HANDLE NON-    00386100
               *                                       X'4001' EXT. INTERUPTS?         00386150
                         BNE   NOXITRP        -> NO NEED TO CHECK VMCPVADB THEN.       00386200
                         ICM   R1,B'1111',XTRPTAD  ANY ADDRESS OF NON-X'4001' ITRPT    00386250
               *                                   HANDLER YET?                        00386300
                         BNZ   NOXITRP        YES--DON'T STORE NEW ONE.                00386350
                         ICM   R1,B'1111',VMCPVADB  GET ADDRESS                        00386400
                         BNP   NOXITRP        NOT POS. ALREADY BAD,SKIP.               00386450
                         MVC   XTRPTAD,VMCPVADB  SAVE ADDRESS.                         00386500
               NOXITRP   DS    0H                                                      00386550
               .NOXIT    ANOP  ,                                                       00386600
      ./ I 577000 $ 577100
INSERTING...             TITLE 'OS/VMCF External Interrupt Handler'                    00577100
      ./ R 801000 $ 801050 50
DELETING...              L     R2,NUMIGNOR                                             00801000
INSERTING...             AIF   (NOT &CMS).NOXIT2                                       00801050
                         ICM   R15,B'1111',XTRPTAD  USER HANDLER?                      00801100
                         BZ    NOXITRP2                                                00801150
               * >>>>    STM   Done on VMCFEXT entry    <<<< *                         00801200
                         ST    R13,XTRPTSA+4  SAVE OLD PTR IN NEW AREA.                00801250
                         LR    R14,R13        MOVE OLD POINTER OVER.                   00801300
                         LA    R13,XTRPTSA    ADDRESS OF NEW SAVE AREA.                00801350
                         ST    R13,8(,R14)    SAVE NEW POINTER IN OLD AREA.            00801400
                         BALR  R14,R15        GO TO USER ROUTINE.                      00801450
                         L     R13,4(,R13)    RESTORE OLD SAVEAREA ADDRESS.            00801500
               NOXITRP2  DS    0H                                                      00801550
               .NOXIT2   ANOP  ,                                                       00801600
                         L     R0,NUMIGNOR                                             00801650
      ./ I 804000 $ 804100
INSERTING...             TITLE 'OS/VMCF'                                               00804100
      ./ I 1006000 $ 1006100 100
INSERTING...             AIF   (NOT &CMS).NOXIT3                                       01006100
               XTRPTAD   DC    AL4(0)         USER NON X'4001' ITRPT HANDLER.          01006200
               XTRPTSA   DC    18F'0'                                                  01006300
               .NOXIT3   ANOP  ,                                                       01006400
      ./ R 1009000 $ 1009100
DELETING...     AUTHPARM DS    0D             PARM FIEL FOR AUTHORIZE                  01009000
INSERTING...    AUTHPARM DS    0D             PARM FIELD FOR AUTHORIZE                 01009100
```

```
      ./ R 894000 $ 894050 50
DELETING...           BR    R14          RETURN TO CALLER                          00894000
INSERTING...          SPACE 2 ,                                                    00894050
            * >>>> Branch to routine CDBSPOST to schedule execution of this DML. << 00894100
                      SPACE ,                                                      00894150
                      ST    R13,POSTSA+4 SAVE OLD POINTER IN NEW AREA              00894200
                      ST    R14,RETADD   SAVE CALLED ADDRESS.                      00894250
                      LR    R14,R13      MOVE OLD POINTER OVER                     00894300
                      LA    R13,POSTSA   ADDRESS OF NEW SAVEAREA                   00894350
                      ST    R13,8(,R14)  SAVE NEW POINTER IN OLD AREA              00894400
                      L     R15,ACDBSPST ADDRESS OF CDBSPOST                       00894450
                      BALR  R14,R15      -> TO CDBSPOST                            00894500
                      L     R13,4(,R13)  RESTORE OLD REG SAVE AREA                 00894550
                      L     R14,RETADD   RETURN ADDRESS.                           00894600
                      BR    R14          -> TO POST'S CALLER                       00894650
                      SPACE ,                                                      00894700
      ./ I 1006400 $ 1006500 100
INSERTING...    POSTSA    DC  18F'0'     CDBSPOST SAVE AREA                        01006500
                RETADD    DC  AL4(0)     ADDRESS OF POST'S CALLER.                 01006600
                ACDBSPST  DC  V(CDBSPOST) ADDRESS OF CDBSPOST                      01006700
```

```
TEXT MACS USLIB1 DMSSP CMSLIB OSMACRO CIAM
TEXT AUXCIAM



UPDT0001 -- NON-'4001'X EXTERNAL INTERUPT HANDLING MODIFICATION.
*         CDBSVMCF UPDT0001 D1 6N9192 10/09/81  11:32
UPDT0002 -- CALL CDBSPOST AT POST TIME MODIFICATION.
*         CDBSVMCF UPDT0002 D1 6N9192 10/09/81  11:33
*         USLIB1   MACLIB   Z2 CMS29D 10/17/81  10:00
*         DMSSP    MACLIB   S2 VMSP90 04/21/81  00:30
*         CMSLIB   MACLIB   S2 VMSP90 04/21/81  01:23
*         OSMACRO  MACLIB   S2 VMSP90 12/09/78  05:02
*         CIAM     MACLIB   D1 6N9192 90/17/81  10:05
*         CDBSVMCF ASSEMBLE D1 6N9192 89/20/81  15:27
```

ASM 0201 20.31 10/25/81

SYMBOL	TYPE	ID	ADDR	LENGTH	LDID
IEAVMCF	SD	0001	000000	005000	
VMCFINIT	LD		000000		0001
VMCFTERM	LD		00005A		0001
CDBSPOST	ER	0002			

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

                                     2           LCLA  &SVCNO                                                00002000
                                     3           LCLA  &SVCTYPE                                              00003000
                                     4           LCLA  &SP           SUBPOOL FOR GETMAIN                     00004000
                                     5           LCLB  &CMS                                                  00005000
                                     6           LCLB  &MS                                                   00006000
                                     7 &SVCNO    SETA  211           TYPE 1/2 SVC NUMBER                     00007000 ?
                                     8 &SVCTYPE  SETA  2             SVC TYPE                                00008000 ?
                                     9 &SP       SETA  245           SYSTEM-ORIENTED SQA                     00009000 ?
                                    10 &CMS      SETB  (1)           CMS OS SIMULATION SUPPORT VERSION       00010000 ?
                                    11 &MS       SETB  (0)           USING MS NUCLEUS ROUTINES               00011000 ?
000000                              12 IEAVMCF   START 0             START OF CSECT                          00012000
                                    13           AIF   (&CMS).CMS1                                           00013000
                                    14 .CMS1     ANOP  ,                                                     00022000 ?
                                    15           AIF   (&MS).MS1                                             00023000
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

                                    17 *                                                                    00024000
                                    18 *              CMS INITIALIZATION ROUTINE                            00025000
                                    19 *                                                                    00026000
                                    20          ENTRY VMCFINIT                                              00027000
000000 90EC D00C      0000C         21 VMCFINIT STM   R14,R12,12(R13)  SAVE REGS FROM CALLER                00028000
                            00000   22          USING VMCFINIT,R15   ENTRY ADDRESSABILITY                   00029000 21
000004 58C0 FD58      00D58         23          L     R12,=A(IEAVMCF)                                       00030000 12
                            00000   24          USING IEAVMCF,R12                                           00031000 12
                                    25          DROP  R15                                                   00032000
000008 41E0 CB58      00B58         26          LA    R14,SAVE                                              00033000 972
00000C 50ED 0008      00008         27          ST    R14,8(R13)                                            00034000
000010 50DE 0004      00004         28          ST    R13,4(R14)                                            00035000
000014 18DE                         29          LR    R13,R14                                               00036000
                                    30          HNDEXT SET,VMCFEXT   ESTABLISH EXTERNAL IRPT HANDLER        00037000
000016 0700                         31+         CNOP  0,4                                                   00005000
000018 4510 C028      00028         32+         BAL   1,DMS0001A                                            00015000 35
00001C E3D9C1D740404040             33+         DC    CL8'TRAP'                                             00016000
000024 00000714                     34+         DC    A(VMCFEXT)                                            00017000 591
000028 0ACA                         35+DMS0001A     SVC 202                                                 00018000
00002A 0000002E                     36+         DC    AL4(*+4)                                              00019000
                                    37          HNDSVC SET,(&SVCNO,IGC&SVCNO)  ESTAB SVC HANDLER            00038000
00002E 0700                         38+         CNOP  0,4                                                   00004000
000030 4510 C048      00048         39+         BAL   1,DMS0002A                                            00009000 44
000034 C8D5C4E2E5C34040             40+         DC    CL8'HNDSVC'                                           00010000
00003C E2C5E340                     41+         DC    CL4'SET'                                              00011000
000040 D30000B2                     42+         DC    AL1(211),AL3(IGC211)                                  00018000 91
000044 FFFFFFFF                     43+         DC    XL4'FFFFFFFF'                                         00024000
000048 0ACA                         44+DMS0002A     SVC 202                                                 00025000
00004A 0000004E                     45+         DC    AL4(*+4)                                              00026000
00004E 58DD 0004      00004         46          L     R13,4(R13)                                            00039000
000052 98EC D00C      0000C         47          LM    R14,R12,12(R13)                                       00040000
000056 1BFF                         48          SR    R15,R15                                               00041000
000058 07FE                         49          BR    R14             RETURN TO CALLER                      00042000
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                          ASM 0201 20.31 10/25/81

                                   51 *                                                                  00043000
                                   52 *              CMS TERMINATION ROUTINE                             00044000
                                   53 *                                                                  00045000
                                   54          ENTRY VMCFTERM                                            00046000
00005A 90EC D00C      0000C        55 VMCFTERM STM   R14,R12,12(R13)                                     00047000
                            0005A  56          USING VMCFTERM,R15                                        00048000 55
00005E 58C0 FCFE      00D58        57          L     R12,=A(IEAVMCF)  GET MODULE BASE                    00049000 12
                      00000        58          USING IEAVMCF,R12                                         00050000 12
                                   59          DROP  R15                                                 00051000
000062 41E0 CB58      00B58        60          LA    R14,SAVE                                            00052000 972
000066 50ED 0008      00008        61          ST    R14,8(R13)                                          00053000
00006A 50DE 0004      00004        62          ST    R13,4(R14)                                          00054000
00006E 18DE                        63          LR    R13,R14                                             00055000
                                   64          HNDEXT CLR           CLEAR EXT IRPT HANDLER               00056000
000070                             65+         CNOP  0,4                                                 00005000
000070 4510 C080      00080        66+         BAL   1,DMS0003A                                          00015000 69
000074 E3D9C1D740404040            67+         DC    CL8'TRAP'                                           00016000
00007C 00000000                    68+         DC    A(0)                                                00017000
000080 0ACA                        69+DMS0003A     SVC 202                                               00018000
000082 00000086                    70+         DC    AL4(*+4)                                            00019000
                                   71          HNDSVC CLR,&SVCNO    CLEAR SVC LINKAGE                    00057000
000086 0700                        72+         CNOP  0,4                                                 00004000
000088 4510 C0A0      000A0        73+         BAL   1,DMS0004A                                          00009000 78
00008C C8D5C4E2E5C34040            74+         DC    CL8'HNDSVC'                                         00010000
000094 C3D3D940                    75+         DC    CL4'CLR'                                            00011000
000098 D3000000                    76+         DC    AL1(211),AL3(0)                                     00021000
00009C FFFFFFFF                    77+         DC    XL4'FFFFFFFF'                                       00024000
0000A0 0ACA                        78+DMS0004A     SVC 202                                               00025000
0000A2 000000A6                    79+         DC    AL4(*+4)                                            00026000
0000A6 58DD 0004      00004        80          L     R13,4(R13)       RESTORE OLD SAVE AREA PTR          00058000
0000AA 98EC D00C      0000C        81          LM    R14,R12,12(R13)                                     00059000
0000AE 1BFF                        82          SR    R15,R15          RETURN CODE                        00060000
0000B0 07FE                        83          BR    R14              RETURN TO CALLER                   00061000
                                   84          AGO   .COM1                                               00062000
                                   85 .COM1    ANOP  ,                                                   00006000 ?
```

```
 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

                                   87 *                                                                    00067000
                                   88 *              SVC ENTRY POINT                                       00068000
                                   89 *                                                                    00069000
                                   90 IGC&SVCNO DS   0H              SVC ENTRY POINT                       00070000 ?
0000B2                             91+IGC211    DS   0H              SVC ENTRY POINT                       00070000
                                   92          AIF   (&CMS).CMS2                                           00071000
                                   93 .CMS2    ANOP  ,                                                     00082000 ?
                                   94          AIF   (&MS).MS2                                             00083000
                              000B2 95          USING *,R12           STRANGE HNDSVC ADDRESSABILITY         00084000
0000B2 90EC D00C       0000C       96          STM   R14,R12,12(R13)  SAVE REGISTERS                       00085000
0000B6 8000 CB41       00BF3       97          SSM   DISABLE         DISABLE INTERRUPTS                    00086000 983
0000BA 58C0 CCA6       00D58       98          L     R12,=A(IEAVMCF)  GET MODULE BASE                      00087000 12
                              00000 99          USING IEAVMCF,R12     ADDRESS IT THAT WAY                   00088000 12
0000BE D703 CAB0 CAB0  00AB0 00AB0 100          XC    CALLTCB,CALLTCB  NO TCB ADDRESS FROM CMS             00089000 943 943
0000C4 D207 CAA8 CD28  00AA8 00D28 101          MVC   CALLPSW,=X'FFE4000000000000'  DUMMY CALLER'S PSW     00090000 942
                                  102          AGO   .COM2                                                 00091000
                                  103 .COM2    ANOP  ,                                                     00098000 ?
0000CA 5800 CAD8       00AD8      104          L     R0,NUMSVC       GET SVC COUNT                         00099000 953
0000CE 5A00 CD5C       00D5C      105          A     R0,=F'1'        INCREMENT                             00100000
0000D2 5000 CAD8       00AD8      106          ST    R0,NUMSVC       SAVE NEW SVC COUNT                    00101000 953
0000D6 18A1                       107          LR    R10,R1          GET VMCPARM ADDRESS                   00102000
0000D8 4100 0028       00028      108          LA    R0,VMCPLEN      LENGTH OF VMCPARM                     00103000 910
0000DC 45E0 C9E2       009E2      109          BAL   R14,KEYCHK      CHECK FOR PROTECT VIOLATION           00104000 821
0000E0 4770 CA4A       00A4A      110          BNZ   ERR6            ERROR ADDRESSING VMCPARM              00105000 871
                              00000 111          USING VMCPARM,R10     ADDRESS IT IN ASSEMBLER               00106000 878
0000E4 4810 A002       00002      112          LH    R1,VMCPFUNC     GET FUNCTION CODE                     00107000 886
0000E8 1211                       113          LTR   R1,R1           NEGATIVE?                             00108000
0000EA 4740 CA3A       00A3A      114          BM    ERR2            YES--INVALID SUBFUNCTION              00109000 866
0000EE 4910 CD80       00D80      115          CH    R1,=AL2(MAXFUNC)  OVER MAX?                           00110000 1034
0000F2 4720 CA3A       00A3A      116          BH    ERR2            YES--INVALID SUBFUNCTION              00111000 866
0000F6 4121 CD08       00D08      117          LA    R2,FUNCTAB(R1)  GET FUNCTION TABLE BYTE               00112000 1012
0000FA 9180 2000       00000      118          TM    0(R2),VALID     VALID FUNCTION?                       00113000 1013
0000FE 4780 CA3A       00A3A      119          BZ    ERR2            NO--GIVE INVALID SUBFUNCTION RETURN CODE 00114000 866
000102 4910 CD82       00D82      120          CH    R1,=AL2(VMCPAUTH)  IS THIS AN AUTHORIZE?              00115000 887
000106 4780 C408       00408      121          BE    AUTH            YES--GO HANDLE SEPARATELY             00116000 351
00010A 9501 CBF2       00BF2      122          CLI   INITFLAG,1      IS VMCF INITIALIZED?                  00117000 982
00010E 4770 CA42       00A42      123          BNE   ERR4            NO--THEN CALLER  NOT AUTHORIZED      00118000 868
                                  124 *                                                                    00119000
                                  125 *              LOCATE PATHBLOK FOR CURRENT SVC REQUEST               00120000
                                  126 *                                                                    00121000
000112 4110 A008       00008      127          LA    R1,VMCPUSER     WHERE USERID NORMALY IS               00122000 904
000116 D507 A008 CD30  00008 00D30 128          CLC   VMCPUSER,=CL8'*'  COMMUNICATE WITH SELF?              00123000 904
00011C 4770 C124       00124      129          BNE   *+8            NO--LEAVE                             00124000
000120 4110 CB48       00B48      130          LA    R1,VMUSER       GET OUR USERID                        00125000 967
000124 D200 CBF1 A006  00BF1 00006 131          MVC   LOCTASK,VMCPSRCT  ASSUME LOCAL SOURCE                 00126000 981 902
00012A D200 CBF0 A007  00BF0 00007 132          MVC   REMTASK,VMCPSNKT  AND REMOTE SINK                     00127000 980 903
000130 9140 2000       00000      133          TM    0(R2),SOURCE    IS THIS SUBFUNCTION FOR SOURCE?       00128000 1014
000134 4770 C144       00144      134          BNZ   BASRC1          YES--WE'RE SET                        00129000 137
000138 D200 CBF1 A007  00BF1 00007 135          MVC   LOCTASK,VMCPSNKT  LOCAL TASK IS SINK                  00130000 981 903
00013E D200 CBF0 A006  00BF0 00006 136          MVC   REMTASK,VMCPSRCT  REMOTE IS SOURCE                    00131000 980 902
000144                            137 BASRC1    DS    0H                                                    00132000
000144 5890 CAB4       00AB4      138          L     R9,PATHHEAD     GET FIRST PATHBLOK                    00133000 944
                              00000 139          USING PATHBLOK,R9     ADDRESS IT                            00134000 1038
000148 1299                       140 BALOOP1   LTR   R9,R9           END OF CHAIN?                         00135000
00014A 47D0 C17C       0017C      141          BNP   BADONE1                                               00136000 152
```

```
 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81
00014E 9540 9004       00004        142           CLI   PATHUSER,C' '  SPECIFIC?                                00137000 1040
000152 4780 C16A       0016A        143           BE    BANSPEC1       NO--SKIP USERID/REMOTE TASK ID CHECK      00138000 148
000156 D507 9004 1000  00004 00000  144           CLC   PATHUSER,0(R1)  USERID MATCH?                           00139000 1040
00015C 4770 C174       00174        145           BNE   BANEXT1        NO--GET NEXT ONE                          00140000 150
000160 D500 9020 CBF0  00020 00BF0  146           CLC   PATHREMT,REMTASK  REMOTE TASK MATCH?                     00141000 1048 980
000166 4770 C174       00174        147           BNE   BANEXT1        NO--GET NEXT ONE                          00142000 150
00016A D500 9021 CBF1  00021 00BF1  148 BANSPEC1  CLC   PATHLOCT,LOCTASK  LOCAL TASK MATCH?                     00143000 1049 981
000170 4780 C180       00180        149           BE    BAFOUND1       YES--THIS IS IT                           00144000 154
000174 5890 9000       00000        150 BANEXT1   L     R9,PATHLINK    GET NEXT PATHBLOK                         00145000 1039
000178 47F0 C148       00148        151           B     BALOOP1        CONTINUE                                  00146000 140
00017C                              152 BADONE1   DS    0H             HERE IT NOT FOUND                         00147000
00017C 47F0 CA42       00A42        153           B     ERR4           GIVE NOT AUTHORIZED ERRO                  00148000 868
000180                              154 BAFOUND1  DS    0H             HERE WHEN FOUND                           00149000
                                    155 *                                                                        00150000
                                    156 *          VALIDATE PARAMETERS                                           00151000
                                    157 *                                                                        00152000
000180 91F0 CAA9       00AA9        158           TM    CALLPSW+1,X'F0'  KEY ZERO CALLER?                       00153000 942
000184 4780 C192       00192        159           BZ    *+14           YES--VERY GOOD                            00154000
000188 D502 CAB1 900D  00AB1 0000D  160           CLC   CALLTCB+1(3),PATHTCB+1  TCB ADDR MATCH?                  00155000 943 1042
00018E 4770 CA42       00A42        161           BNE   ERR4           NO--NOT AUTHORIZED                        00156000 868
000192 9120 2000       00000        162           TM    0(R2),ADDRA    ADDRESS A PRESENT?                        00157000 1015
000196 4780 C1AA       001AA        163           BZ    BANADDRA       NO                                        00158000 168
00019A 5800 A014       00014        164           L     R0,VMCPLENA    GET LENGTH OF IT                          00159000 906
00019E 5810 A010       00010        165           L     1,VMCPVADA     GET ADDR                                  00160000 905
0001A2 45E0 C9E2       009E2        166           BAL   R14,KEYCHK     VALIDATE ADDRESSES                        00161000 821
0001A6 4770 CA4A       00A4A        167           BNZ   ERR6           PROTECT KEY CHECK FAILED                  00162000 871
0001AA 9110 2000       00000        168 BANADDRA  TM    0(R2),ADDRB    ADDR/LEN B PRESENT                        00163000 1016
0001AE 4780 C1C2       001C2        169           BZ    BANADDRB       NO                                        00164000 174
0001B2 5800 A01C       0001C        170           L     R0,VMCPLENB    LENGTH OF AREA B                          00165000 908
0001B6 5810 A018       00018        171           L     R1,VMCPVADB    GET ADDR OF AREA B                        00166000 907
0001BA 45E0 C9E2       009E2        172           BAL   R14,KEYCHK     VALIDATE PARAMETES                        00167000 821
0001BE 4770 CA4A       00A4A        173           BNZ   ERR6           PROTECT CHECK FAILED                      00168000 871
0001C2                              174 BANADDRB  DS    0H                                                       00169000
0001C2 D501 A002 CD84  00002 00D84  175           CLC   VMCPFUNC,=AL2(VMCPUNST)  UNSTACK REQUEST?                00170000 886 899
0001C8 4780 C38E       0038E        176           BE    UNSTACK        YES--SEPARATE PROCESSING                  00171000 313
0001CC D501 A002 CD86  00002 00D86  177           CLC   VMCPFUNC,=AL2(VMCPUAUT)  UNAUTHORIZE?                  00172000 886 888
0001D2 4780 C5CE       005CE        178           BE    UNAUTH         YES--SPECIAL HANDLING                     00173000 481
                                    179 *                                                                        00174000
                                    180 *          PERFORM VMCF FUNCTION VIA DIAGNOSE                            00175000
                                    181 *                                                                        00176000
0001D6 9108 2000       00000        182           TM    0(R2),IMMED    IMMEDIATE OPERATION?                      00177000 1017
0001DA 4770 C1F6       001F6        183           BNZ   BAIMMED1       YES                                       00178000 190
0001DE 5800 CB04       00B04        184           L     R0,MAXACTV     GET ACTIVE REQUEST LIMIT FOR SPECIFIC     00179000 959
0001E2 9540 9004       00004        185           CLI   PATHUSER,C' '  SPECIFIC?                                 00180000 1040
0001E6 4770 C1EE       001EE        186           BNE   *+8            YES                                       00181000
0001EA 5800 CB08       00B08        187           L     R0,MAXACTV+4   GET NONSPECIFIC LIMIT                     00182000 959
0001EE 4900 901E       0001E        188           CH    R0,PATHNACT    WILL WE EXCEED IT?                        00183000 1047
0001F2 47D0 CA52       00A52        189           BNH   ERR10          YES--MESSAGE LIMIT EXCEEDED               00184000 873
0001F6                              190 BAIMMED1  DS    0H                                                       00185000
0001F6 4110 CC90       00C90        191           LA    R1,MISCPARM    GET ADDR OF MISC PARM FIELD               00186000 992
0001FA D227 1000 A000  00000 00000  192           MVC   0(VMCPLEN,R1),VMCPARM  MOVE IN PARM LIST                00187000 910 878
000200 D507 1008 CD30  00008 00D30  193           CLC   VMCPUSER-VMCPARM(,R1),=CL8'*'  * FOR USERID?           00188000 904 878
000206 4770 C210       00210        194           BNE   *+10            NO                                       00189000
00020A D207 1008 CB48  00008 00B48  195           MVC   VMCPUSER-VMCPARM(,R1),VMUSER  MOVE IN OUR USERID       00190000 904 878 967
000210 D203 CAE0 CD60  00AE0 00D60  196           MVC   DW(4),=X'00040000'  FRONT HALF OF PSW                    00191000 954
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81
000216 D203 CAE4 CD64 00AE4 00D64   197            MVC   DW+4(4),=A(BAEXHVC)                                  00192000 954 202
00021C D300 CAE1 CAA9 00AE1 00AA9   198            MVZ   DW+1(1),CALLPSW+1  GET CALLER'S PROTECT KEY          00193000 954 942
000222 D203 CAE8 CD60 00AE8 00D60   199            MVC   DW2(4),=X'00040000'  FRONT HALF OF RESUME            00194000 955
000228 D203 CAEC CD68 00AEC 00D68   200            MVC   DW2+4(4),=A(BAEXDONE)                                00195000 955 204
00022E 8200 CAE0      00AE0         201            LPSW  DW               ENTER CALLER'S PROTECT KEY          00196000 954
000232 831F0068                     202 BAEXHVC    DC    X'831F0068'      VMCF                                00197000
000236 8200 CAE8      00AE8         203            LPSW  DW2              RESUME IN KEY ZERO                  00198000 955
00023A 50F0 CBEC      00BEC         204 BAEXDONE   ST    R15,HVCRC        STORE DIAGNOSE RETURN CODE          00199000 979
                                    205 *                                                                    00200000
                                    206 *            .     BUILD ACTVBLOK IF NECESSARY                       00201000
                                    207 *                                                                    00202000
00023E 12FF                         208            LTR   R15,R15          GOOD COMPLETION?                    00203000
000240 4770 C2B8      002B8         209            BNZ   BANBLD2          NO--NO ACTVBLOK TO BUILD            00204000 238
000244 9108 2000      00000         210            TM    0(R2),IMMED      IMMEDIATE OPERATION?                00205000 1017
000248 4770 C2B8      002B8         211            BNZ   BANBLD2          YES--DON'T BUILD                    00206000 238
00024C 5880 CAC0      00AC0         212            L     R8,FREEACTV      GET TOP ENTRY ON FREE QUEUE         00207000 947
                                00000 213            USING ACTVBLOK,R8      ADDRESS IT                      00208000 1054
000250 1288                         214            LTR   R8,R8            IS THERE ONE?                       00209000
000252 47D0 C260      00260         215            BNP   BAGM2            NO--ISSUE GETMAIN                   00210000 218
000256 D203 CAC0 8000 00AC0 00000   216            MVC   FREEACTV,ACTVLINK  REMOVE FROM FREE LIST             00211000 947 1055
00025C 47F0 C270      00270         217            B     BABLD2           GO BUILD IT                         00212000 222
000260 4100 0013      00013         218 BAGM2      LA    R0,ACTVLEN       LENGTH OF BLOCK                     00213000 1061
000264 45E0 CA10      00A10         219            BAL   R14,GETMAIN      GET CORE                            00214000 846
000268 1881                         220            LR    R8,R1            SAVE ADDR                           00215000
00026A D712 1000 1000 00000 00000   221            XC    0(ACTVLEN,R1),0(R1)  CLEAR BLOCK                   00216000 1061
000270                              222 BABLD2     DS    0H                                                   00217000
000270 D203 8000 9018 00000 00018   223            MVC   ACTVLINK,PATHACTQ  ADD TO FRONT OF PATH'S ACTIVE QUEUE 00218000 1055 1045
000276 5080 9018      00018         224            ST    R8,PATHACTQ      COMPLETE ADDITION                   00219000 1045
00027A D207 8004 A008 00004 00008   225            MVC   ACTVUSER,VMCPUSER  USERID                            00220000 1056 904
000280 D507 8004 CD30 00004 00D30   226            CLC   ACTVUSER,=CL8'*'                                     00221000 1056
000286 4770 C290      00290         227            BNE   *+10              NOT A * REFERENCE                   00222000
00028A D207 8004 CB48 00004 00B48   228            MVC   ACTVUSER,VMUSER  GET OUR USERID                      00223000 1056 967
000290 D203 800C A004 0000C 00004   229            MVC   ACTVMID,VMCPMID  MESSAGE ID                          00224000 1057 900
000296 D201 8010 A002 00010 00002   230            MVC   ACTVFUNC,VMCPFUNC  FUNCTION                          00225000 1058 886
00029C 9200 8012      00012         231            MVI   ACTVSTAT,0       THIS IS A SOURCE REQUEST            00226000 1059
0002A0 4800 901E      001E          232            LH    R0,PATHNACT      GET ACTIVE COUNT                    00227000 1047
0002A4 5A00 CD5C      00D5C         233            A     R0,=F'1'                                             00228000
0002A8 4000 901E      001E          234            STH   R0,PATHNACT                                          00229000 1047
0002AC 5800 CACC      00ACC         235            L     R0,NUMACTV       GET SYSTEM ACTIV COUNT              00230000 950
0002B0 5A00 CD5C      00D5C         236            A     R0,=F'1'                                             00231000
0002B4 5000 CACC      00ACC         237            ST    R0,NUMACTV       STORE IT                            00232000 950
0002B8                              238 BANBLD2    DS    0H                                                   00233000
                                    239 *                                                                    00234000
                                    240 *            DELETE ACTVBLOKS FOR RESPONSE FUNCTIONS                 00235000
                                    241 *                                                                    00236000
0002B8 9104 2000      00000         242            TM    0(R2),RESP       IS THIS A RESPONSE FUNCTION?        00237000 1018
0002BC 4780 C386      00386         243            BZ    BANRESP3         NO--NO DELETION REQUIRED            00238000 307
0002C0 58F0 CBEC      00BEC         244            L     R15,HVCRC        GET RETURN CODE FROM HVC            00239000 979
0002C4 12FF                         245            LTR   R15,R15          WAS IT GOOD?                        00240000
0002C6 4780 C2DE      002DE         246            BZ    BARESP3          YES--ALWAYS GOOD                    00241000 252
0002CA 59F0 CD6C      00D6C         247            C     R15,=F'11'       REPLY CANCELLED?                    00242000
0002CE 4780 C2DE      002DE         248            BE    BARESP3          YES                                 00243000 252
0002D2 59F0 CD70      00D70         249            C     R15,=F'12'       MESSAGE NOT FOUND?                  00244000
0002D6 4780 C2DE      002DE         250            BE    BARESP3          THESE ARE SUCCESSFUL FROM OUR VIEWPOINT 00245000 252
0002DA 47F0 C386      00386         251            B     BANRESP3         IGNORE OTHER ERROR CODES            00246000 307
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

0002DE                             252 BARESP3  DS    0H                                                    00247000
0002DE 5880 9018       00018       253          L     R8,PATHACTQ     GET HEAD OF QUEUE                     00248000 1045
0002E2 4170 9018       00018       254          LA    R7,PATHACTQ     LAGGING PTR FOR DELETE                00249000 1045
0002E6 1288                        255 BALOOP3  LTR   R8,R8           END OF LIST?                          00250000
0002E8 47D0 C386       00386       256          BNP   BADONE3         YES                                   00251000 306
0002EC D503 800C A004  0000C 00004 257          CLC   ACTVMID,VMCPMID  MESSAGE ID MATCH?                    00252000 1057 900
0002F2 4770 C37A       0037A       258          BNE   BANEXT3         NO--GET NEXT ONE                      00253000 303
0002F6 D501 A002 CD88  00002 00D88 259          CLC   VMCPFUNC,=AL2(VMCPCANC)  IS THIS A 'CANCEL'          00254000 886 893
0002FC 4780 C316       00316       260          BE    BACANC3         YES                                   00255000 266
000300 9180 8012       00012       261          TM    ACTVSTAT,ACTVSINK  IS THIS SINK (FOR RECV/REPLY/REJECT) 00256000 1059 1060
000304 4780 C37A       0037A       262          BZ    BANEXT3         NO--NOT A MATCH                       00257000 303
000308 D501 A002 CD8A  00002 00D8A 263          CLC   VMCPFUNC,=AL2(VMCPRECV)  IS THIS RECEIVE?             00258000 886 892
00030E 4780 C322       00322       264          BE    BARECV3         YES--SPECIAL HANDLING                 00259000 269
000312 47F0 C336       00336       265          B     BADEL3          OTHERWISE ON REPLY/REJECT DELETE ACTVBLOK 00260000 278
000316 9180 8012       00012       266 BACANC3  TM    ACTVSTAT,ACTVSINK  IS THIS SINK FOR CANCEL?            00261000 1059 1060
00031A 4770 C37A       0037A       267          BNZ   BANEXT3         YES--THEN NO MATCH                    00262000 303
00031E 47F0 C336       00336       268          B     BADEL3          IF SOURCE THEN CANCEL DOES APPLY      00263000 278
000322 D501 8010 CD8C  00010 00D8C 269 BARECV3  CLC   ACTVFUNC,=AL2(VMCPSENR)  RECV TO SEND/RECV?           00264000 1058 890
000328 4770 C336       00336       270          BNE   BADEL3          NO--THEN RECV IS FINAL OP REQURIED BY SIN 00265000 278
00032C 58F0 CBEC       00BEC       271          L     R15,HVCRC       GET HVC RETURN CODE                   00266000 979
000330 12FF                        272          LTR   R15,R15         WAS IT SUCCESSFUL?                    00267000
000332 4780 C37A       0037A       273          BZ    BANEXT3         YES--THEN REPLY/REJECT FOLLOWS        00268000 303
                                   274 *                              THE OTHER CASE IS 11 OR 12 WHICH MEANS 00269000
                                   275 *                              THAT THE SOURCE ALREADY CANCELLED THE  00270000
                                   276 *                              MESSAGE AND THUS OUR USER WILL NOT BE  00271000
                                   277 *                              ISSUING A REPLY/REJECT.                00272000
000336                             278 BADEL3   DS    0H              HERE TO DELETE                        00273000
                                   279 *                              WE DELETE THE FOLLOWING:               00274000
                                   280 *                              ANYTHING CANCELED                      00275000
                                   281 *                              ANYTHING REJECTED/REPLYED              00276000
                                   282 *                              ANYTHING BUT SEND/RECV WHICH WAS       00277000
                                   283 *                              RECEIVED.                              00278000
                                   284 *                              SEND/RECV IF RECEIVE GOT ERROR 11 OR 12 00279000
000336 D203 7000 8000  00000 00000 285          MVC   0(4,R7),ACTVLINK  REMOVE FROM QUEUE                    00280000 1055
00033C D203 8000 CAC0  00000 00AC0 286          MVC   ACTVLINK,FREEACTV  ADD TO FREE LIST                    00281000 1055 947
000342 5080 CAC0       00AC0       287          ST    R8,FREEACTV     COMPLETE THE ADD                      00282000 947
000346 9180 8012       00012       288          TM    ACTVSTAT,ACTVSINK  ARE WE THE SINK MACHINE?             00283000 1059 1060
00034A 4770 C372       00372       289          BNZ   BANDECR3        YES--NO ACTV COUNT DECR REQUIRED      00284000 300
00034E 4800 901E       0001E       290          LH    R0,PATHNACT     GET NUMBER ACTIVE FOR PATH            00285000 1047
000352 5B00 CD5C       00D5C       291          S     R0,=F'1'                                              00286000
000356 47B0 C35C       0035C       292          BNM   *+6             MUST BE NONNEGATIVE                   00287000
00035A 0000                        293          DC    H'0'                                                  00288000
00035C 4000 901E       0001E       294          STH   R0,PATHNACT                                           00289000 1047
000360 5800 CACC       00ACC       295          L     R0,NUMACTV                                            00290000 950
000364 5B00 CD5C       00D5C       296          S     R0,=F'1'                                              00291000
000368 47B0 C36E       0036E       297          BNM   *+6                                                   00292000
00036C 0000                        298          DC    H'0'                                                  00293000
00036E 5000 CACC       00ACC       299          ST    R0,NUMACTV      STORE NUMBER ACTIVE                   00294000 950
000372                             300 BANDECR3 DS    0H                                                    00295000
000372 5887 0000       00000       301          L     R8,0(R7)        GET NEXT ENTRY                        00296000
000376 47F0 C2E6       002E6       302          B     BALOOP3         CONTINUE                              00297000 255
00037A 4170 8000       00000       303 BANEXT3  LA    R7,ACTVLINK     UPDATE LAGGING PTR                    00298000 1055
00037E 5880 8000       00000       304          L     R8,ACTVLINK     GET NEXT ENTRY                        00299000 1055
000382 47F0 C2E6       002E6       305          B     BALOOP3         CONTINUE                              00300000 255
000386                             306 BADONE3  DS    0H              HERE AT END OF CHAIN                  00301000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

000386                                307 BANRESP3 DS    0H              HERE TO SKIP ALL OF THIS                  00302000
000386 58F0 CBEC       00BEC          308          L     R15,HVCRC       GET RETURN CODE FROM HVC                  00303000 979
00038A 47F0 C6F2       006F2          309          B     RTRN            RETURN TO SVC CALLER                      00304000 570
                                      310 *                                                                    00305000
                                      311 *                UNSTACK PROCESSING                                  00306000
                                      312 *                                                                    00307000
00038E                                313 UNSTACK  DS    0H                                                      00308000
00038E 5880 9014       00014          314          L     R8,PATHPNDQ     GET FIRST PENDBLOK                        00309000 1044
                              00000   315          USING PENDBLOK,R8                                             00310000 1065
000392 1288                           316          LTR   R8,R8           IS THERE ONE?                           00311000
000394 47D0 CA5A       00A5A          317          BNP   ERR12          NO--NOTHING TO UNSTACK                    00312000 875
000398 5800 A014       00014          318          L     R0,VMCPLENA     GET LENGTH OF USER'S EXT IRPT BUFFER      00313000 906
00039C 4900 CD8E       00D8E          319          CH    R0,=AL2(VMCMLEN)  CORRECT LENGTH?                       00314000 936
0003A0 4740 CA32       00A32          320          BL    ERR1            NO--TOO SMALL                           00315000 864
0003A4 D203 9014 8000  00014 00000    321          MVC   PATHPNDQ,PENDLINK  REMOVE FROM CHAIN                  00316000 1044 1066
0003AA D203 8000 CABC  00000 00ABC    322          MVC   PENDLINK,FREEPEND                                      00317000 1066 946
0003B0 5080 CABC       00ABC          323          ST    R8,FREEPEND     ADD TO FREE LIST                        00318000 946
0003B4 5800 CAC8       00AC8          324          L     R0,NUMPEND      GET PENDING COUNT                       00319000 949
0003B8 5B00 CD5C       00D5C          325          S     R0,=F'1'                                                00320000
0003BC 47B0 C3C2       003C2          326          BNM   *+6                                                     00321000
0003C0 0000                           327          DC    H'0'                                                    00322000
0003C2 5000 CAC8       00AC8          328          ST    R0,NUMPEND                                              00323000 949
0003C6 4800 901C       0001C          329          LH    R0,PATHNPND                                             00324000 1046
0003CA 5B00 CD5C       00D5C          330          S     R0,=F'1'                                                00325000
0003CE 47B0 C3D4       003D4          331          BNM   *+6                                                     00326000
0003D2 0000                           332          DC    H'0'                                                    00327000
0003D4 4000 901C       0001C          333          STH   R0,PATHNPND                                             00328000 1046
0003D8 5810 A010       00010          334          L     R1,VMCPVADA     GET USER BUFFER ADDR                    00329000 905
0003DC D227 1000 8004  00000 00004    335          MVC   0(VMCMLEN,R1),PENDVMCM  COPY IRPT HEADER                00330000 936 1067
                                      336 *                                NOTE THAT ADDR WAS ALREADY VALIDATED  00331000
0003E2 4100 0004       00004          337          LA    R0,4            LENGTH OF ECB                           00332000
0003E6 5810 9010       00010          338          L     R1,PATHECB      ECB ADDRESS                             00333000 1043
0003EA 45E0 C9E2       009E2          339          BAL   R14,KEYCHK      CHECK ECB ADDRESS                       00334000 821
0003EE 4770 C402       00402          340          BNZ   UNSTK2          NOT ADDRESSABLE--TOO BAD                00335000 345
0003F2 5880 9014       00014          341          L     R8,PATHPNDQ     IS THERE MORE ON PEND QUEUE?            00336000 1044
0003F6 1288                           342          LTR   R8,R8           IS THERE?                               00337000
0003F8 4720 C402       00402          343          BP    UNSTK2          YES--DON'T CLEAR ECB                    00338000 345
0003FC D703 1000 1000  00000 00000    344          XC    0(4,R1),0(R1)   CLEAR THE ECB                          00339000
000402                                345 UNSTK2   DS    0H                                                      00340000
000402 1BFF                           346          SR    R15,R15         RETURN CODE FOR FUNCTION                00341000
000404 47F0 C6F2       006F2          347          B     RTRN            RETURN FROM SVC                         00342000 570
                                      348 *                                                                    00343000
                                      349 *                AUTHORIZE FUNCTION                                  00344000
                                      350 *                                                                    00345000
000408                                351 AUTH     DS    0H                                                      00346000
000408 9501 CBF2       00BF2          352          CLI   INITFLAG,1     IS SYSTEM VMCF INITIALIZED?             00347000 982
00040C 4780 C468       00468          353          BE    AUTH2           YES--VERY GOOD                          00348000 385
                                      354 *                                                                    00349000
                                      355 *                INITIALIZE REAL VMCF                                00350000
                                      356 *                                                                    00351000
000410 B202 CAF0       00AF0          357          STIDP CPUID           GET S/370 CPU ID                        00352000 956
000414 95FF CAF0       00AF0          358          CLI   CPUID,X'FF'     UNDER VM/370?                           00353000 956
000418 4770 C466       00466          359          BNE   INITFAIL        NO--CAN'T ISSUE HVCS                    00354000 381
00041C 4110 CB38       00B38          360          LA    R1,XID          WHERE EXTENDED MACHINE ID GOES          00355000 963
000420 4100 0020       00020          361          LA    R0,32           GET LENGTH OF ID AREA              VMSP 00356000
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.31 10/25/81

000424 83100000                      362          DC    X'83100000'     REQUESST EXTENDED ID                    00357000
000428 D507 CB38 CD38 00B38 00D38     363          CLC   XID(8),=CL8'VM/SP'  IS THIS VM/SP?                VMSP 00358000 963
00042E 4780 C43C      0043C          364          BE    INITOK          YES--WE'LL TAKE IT                VMSP 00359000 369
000432 D507 CB38 CD40 00B38 00D40     365          CLC   XID(8),=CL8'VM/370'  RIGHT OP SYS?                 00360000 963
000438 4770 C466      00466          366          BNE   INITFAIL        NO                                  00361000 381
                                     367 *        CLC   VMREL,=X'030008'  RELEASE SUPPORTING VMCF?          00362000
                                     368 *        BL    INITFAIL        NO                                  00363000
00043C                               369 INITOK   DS    0H                                                VMSP 00364000
00043C B600 CAF8      00AF8          370          STCTL 0,0,SAVECR0     SAVE CR0 VALUE                      00365000 957
000440 9601 CAFB      00AFB          371          OI    SAVECR0+3,X'01'  SET VMCF BIT                       00366000 957
000444 B700 CAF8      00AF8          372          LCTL  0,0,SAVECR0     RELOAD IT                           00367000 957
000448 4110 CCE0      00CE0          373          LA    R1,UAUTPARM     ADDR OF PARMS FOR UNAUTH            00368000 1001
00044C 831F0068                      374          DC    X'831F0068'     UNAUTHORIZE TO CLEAR QUEUES         00369000
000450 4110 CCB8      00CB8          375          LA    R1,AUTHPARM     GET ADDR OF AUTHORIZE PARMS         00370000 993
000454 831F0068                      376          DC    X'831F0068'     AUTHORIZE THE OS MACHINE            00371000
000458 12FF                          377          LTR   R15,R15         DID IT TAKE?                        00372000
00045A 4770 C466      00466          378          BNZ   INITFAIL        NO--FAILURE                         00373000 381
00045E 9201 CBF2      00BF2          379          MVI   INITFLAG,1      OS/VMCF IS INITIALIZED              00374000 982
000462 47F0 C468      00468          380          B     AUTH2                                               00375000 385
000466 0000           .              381 INITFAIL DC    H'0'            INITIALIZATION FAILED               00376000
                                     382 *                                                                 00377000
                                     383 *        CONTINUE USER AUTHORIZE FUNCTION PROCESSING             00378000
                                     384 *                                                                 00379000
000468                               385 AUTH2    DS    0H                                                00380000
000468 5800 A014      00014          386          L     R0,VMCPLENA     GET ECB LEN                         00381000 906
00046C 5900 CD74      00D74          387          C     R0,=F'4'        AT LEAST 4 BYTES LONG?              00382000
000470 4740 CA32      00A32          388          BL    ERR1            NO--ERROR                           00383000 864
000474 5810 A010      00010          389          L     R1,VMCPVADA     GET ADDR                            00384000 905
000478 45E0 C9E2      009E2          390          BAL   R14,KEYCHK      VALIDATE ADDRESS                    00385000 821
00047C 4770 CA4A      00A4A          391          BNZ   ERR6            INVALID ADDRESS                     00386000 871
                                     392          ANOP  (NOT &CMS).NOXIT                                    00386050
000480 D507 A020 CD48 00020 00D48     393          CLC   VMCPUSE,=CL8'EXTERNAL'  DID USER WISH TO HANDLE NON- 00386100 909
                                     394 *                                      X'4001' EXT. INTERUPTS?    00386150
000486 4770 C4A0      004A0          395          BNE   NOXITRP        -> NO NEED TO CHECK VMCPVADB THEN.  00386200 402
00048A BF1F CBF4      00BF4          396          ICM   R1,B'1111',XTRPTAD  ANY ADDRESS OF NON-X'4001' ITRPT 00386250 985
                                     397 *                                  HANDLER YET?                   00386300
00048E 4770 C4A0      004A0          398          BNZ   NOXITRP        YES--DON'T STORE NEW ONE.           00386350 402
000492 BF1F A018      00018          399          ICM   R1,B'1111',VMCPVADB  GET ADDRESS                    00386400 907
000496 47D0 C4A0      004A0          400          BNP   NOXITRP        NOT POS. ALREADY BAD,SKIP.          00386450 402
00049A D203 CBF4 A018 00BF4 00018    401          MVC   XTRPTAD,VMCPVADB  SAVE ADDRESS.                    00386500 985 907
0004A0                               402 NOXITRP  DS    0H                                                00386550
                                     403 .NOXIT   ANOP  ,                                                 00386600 ?
                                     404 *                                                                 00387000
                                     405 *        SCAN FOR DUPLICATE PATH AND DETERMINE INSERTION PT       00388000
                                     406 *                                                                 00389000
                                     407 *                          NOTE SPECIFIC PRECEDE NONSPECIFIC      00390000
0004A0 5890 CAB4      00AB4          408          L     R9,PATHHEAD     GET FIRST PATHBLOK                  00391000 944
0004A4 4170 CAB4      00AB4          409          LA    R7,PATHHEAD     LAGGING PTR FOR INSERTION           00392000 944
0004A8 1299                          410 BELOOP1  LTR   R9,R9           END OF LIST?                        00393000
0004AA 47D0 C510      00510          411          BNP   BEDONE1        YES--INSERT HERE                    00394000 434
0004AE 9540 9004      00004          412          CLI   PATHUSER,C' '   IS THIS PATHBLOK SPECIFIC?          00395000 1040
0004B2 4780 C4F2      004F2          413          BE    BENSPEC1        NO--SPECIAL HANDLING                00396000 427
0004B6 9180 A000      00000          414          TM    VMCPFLG1,VMCPAUTS  AUTHORIZE SPECIFIC?              00397000 882 883
0004BA 4780 C504      00504          415          BZ    BENEXT1         NO--DON'T INSERT YET                00398000 431
0004BE 4110 A008      00008          416          LA    R1,VMCPUSER     GET ADDR OF USERID                  00399000 904
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81
0004C2 D507 A008 CD30 00008 00D30   417           CLC   VMCPUSER,=CL8'*'  * FOR USERID?                  00400000 904
0004C8 4770 C4D0      004D0         418           BNE   *+8               NO                            00401000
0004CC 4110 CB48      00B48         419           LA    R1,VMUSER         GET OUR USERID                00402000 967
0004D0 D507 9004 1000 00004 00000   420           CLC   PATHUSER,0(R1)    MATCH ON USERID?              00403000 1040
0004D6 4770 C504      00504         421           BNE   BENEXT1           NO--NOT DUPLICATE             00404000 431
0004DA D500 9021 A006 00021 00006   422           CLC   PATHLOCT,VMCPSRCT  LOCAL TASSK ID MATCH?         00405000 1049 902
0004E0 4770 C504      00504         423           BNE   BENEXT1           NO--NOT DUPLICATE             00406000 431
0004E4 D500 9020 A007 00020 00007   424           CLC   PATHREMT,VMCPSNKT  REMOTE TASK ID MATCH          00407000 1048 903
0004EA 4770 C504      00504         425           BNE   BENEXT1           NO                            00408000 431
0004EE 47F0 C5AC      005AC         426           B     AUTHDUPL          THIS IS A DUPLICATE           00409000 469
0004F2 9180 A000      00000         427 BENSPEC1  TM    VMCPFLG1,VMCPAUTS  SPECIFIC REQUEST?             00410000 882 883
0004F6 4770 C510      00510         428           BNZ   BEDONE1           YES--INSERT HERE BEFORE NONSPECIFICS 00411000 434
0004FA D500 9021 A006 00021 00006   429           CLC   PATHLOCT,VMCPSRCT  MATCH ON LOCAL TASK ID?       00412000 1049 902
000500 4780 C5AC      005AC         430           BE    AUTHDUPL          YES--THIS IS A DUPLICATE REQUEST 00413000 469
000504 4170 9000      00000         431 BENEXT1   LA    R7,PATHLINK       UPDATE LAGGING PTR            00414000 1039
000508 5890 9000      00000         432           L     R9,PATHLINK       GET NEXT PATHBLOK             00415000 1039
00050C 47F0 C4A8      004A8         433           B     BELOOP1           CONTINUE                      00416000 410
000510                              434 BEDONE1   DS    0H                                              00417000
000510 D503 CAC4 CB0C 00AC4 00B0C   435           CLC   NUMPATH,MAXPATH   PATH LIMIT TO BE EXCEEDED?    00418000 948 960
000516 47B0 CA52      00A52         436           BNL   ERR10             YES--GIVE ERROR               00419000 873
00051A 5890 CAB8      00AB8         437           L     R9,FREEPATH       GET A FREE PATHBLOK           00420000 945
00051E 1299                         438           LTR   R9,R9             IS THERE ONE?                 00421000
000520 47D0 C52E      0052E         439           BNP   BEGM1             NO--GET ONE VIA GETMAIN       00422000 442
000524 D203 CAB8 9000 00AB8 00000   440           MVC   FREEPATH,PATHLINK  REMOVE FROM FREELIST          00423000 945 1039
00052A 47F0 C53E      0053E         441           B     BEINS1            GO INSERT IT                  00424000 446
00052E 4100 0022      00022         442 BEGM1     LA    R0,PATHLEN        LENGTH OF ONE                 00425000 1050
000532 45E0 CA10      00A10         443           BAL   R14,GETMAIN        GETMAIN ONE                   00426000 846
000536 1891                         444           LR    R9,R1             GET ADDR OF IT                00427000
000538 D721 1000 1000 00000 00000   445           XC    0(PATHLEN,R1),0(R1)  CLEAR IT                   00428000 1050
00053E                              446 BEINS1    DS    0H                                              00429000
00053E D203 9000 7000 00000 00000   447           MVC   PATHLINK,0(R7)    INSERT IN PATHBLOK LIST       00430000 1039
000544 5097 0000      00000         448           ST    R9,0(R7)                                        00431000
000548 5800 CAC4      00AC4         449           L     R0,NUMPATH                                      00432000 948
00054C 5A00 CD5C      00D5C         450           A     R0,=F'1'          INCR ACTIVE PATH COUNT        00433000
000550 5000 CAC4      00AC4         451           ST    R0,NUMPATH        STORE NEW VALUE               00434000 948
000554 D203 900C CAB0 0000C 00AB0   452           MVC   PATHTCB,CALLTCB   CALLER'S TCB                  00435000 1042 943
00055A D203 9010 A010 00010 00010   453           MVC   PATHECB,VMCPVADA  ECB ADDRESS FOR POSTING       00436000 1043 905
000560 D703 9014 9014 00014 00014   454           XC    PATHPNDQ,PATHPNDQ                               00437000 1044 1044
000566 D703 9018 9018 00018 00018   455           XC    PATHACTQ,PATHACTQ                               00438000 1045 1045
00056C D701 901C 901C 0001C 0001C   456           XC    PATHNPND,PATHNPND                               00439000 1046 1046
000572 D701 901E 901E 0001E 0001E   457           XC    PATHNACT,PATHNACT                               00440000 1047 1047
000578 D200 9021 A006 00021 00006   458           MVC   PATHLOCT,VMCPSRCT  LOCAL TASK IS SOURCE FOR AUTH 00441000 1049 902
00057E D200 9020 A007 00020 00007   459           MVC   PATHREMT,VMCPSNKT  REMOTE IS SINK               00442000 1048 903
000584 4110 A008      00008         460           LA    R1,VMCPUSER       GET USERID ADDRESS            00443000 904
000588 D507 A008 CD30 00008 00D30   461           CLC   VMCPUSER,=CL8'*'  *?                            00444000 904
00058E 4770 C596      00596         462           BNE   *+8               NO                            00445000
000592 4110 CB48      00B48         463           LA    R1,VMUSER         GETY OUR USERID               00446000 967
000596 D207 9004 1000 00004 00000   464           MVC   PATHUSER,0(R1)    USERID OF REMOTE USER         00447000 1040
00059C 5810 9010      00010         465           L     R1,PATHECB        GET ECB ADDRESS               00448000 1043
0005A0 D703 1000 1000 00000 00000   466           XC    0(4,R1),0(R1)     UNPOST THE ECB                00449000
0005A6 1BFF                         467           SR    R15,R15           CLEAR RETURN CODE             00450000
0005A8 47F0 C6F2      006F2         468           B     RTRN              RETURN TO CALLER              00451000 570
0005AC                              469 AUTHDUPL  DS    0H                HERE FOR DUPLICATE AUTHORIZE  00452000
0005AC 91F0 CAA9      00AA9         470           TM    CALLPSW+1,X'F0'   KEY ZERO?                     00453000 942
0005B0 4780 C5BE      005BE         471           BZ    *+14              YES--SKIP TCB CHECK           00454000
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

0005B4 D503 CAB0 900C 00AB0 0000C   472          CLC   CALLTCB,PATHTCB  SAME OS TASK?                    00455000 943 1042
0005BA 4770 CA42      00A42         473          BNE   ERR4             NO--CAN'T DO                    00456000 868
0005BE D503 A010 9010 00010 00010   474          CLC   VMCPVADA,PATHECB  SAME ECB ADDR?                  00457000 905 1043
0005C4 4770 CA42      00A42         475          BNE   ERR4             NO--WON'T DO                    00458000 868
0005C8 1BFF                         476          SR    R15,R15          GOOD RETURN IF NO CHANGES       00459000
0005CA 47F0 C6F2      006F2         477          B     RTRN             RETURN TO SVC CALLER            00460000 570
                                    478 *                                                              00461000
                                    479 *          UNAUTHORIZE PROCESSING - PURGE QUEUES               00462000
                                    480 *                                                              00463000
0005CE                              481 UNAUTH   DS    0H                                              00464000
0005CE 5880 9018      00018         482          L     R8,PATHACTQ      GET FIRST ACTVBLOK             00465000 1045
                                    483          USING ACTVBLOK,R8                                    00466000 1054
0005D2 1288                         484 BFLOOP1  LTR   R8,R8            END OF QUEUE?                   00467000
0005D4 47D0 C652      00652         485          BNP   BFDONE1          YES                             00468000 519
0005D8 4170 CC90      00C90         486          LA    R7,MISCPARM      WHERE TO BUILD PARMS            00469000 992
                                    487          DROP  R10              DROP USER'S VMCP ADDRESSING     00470000
                                    488          USING VMCPARM,R7       ADDRESS OUR VMCPARM             00471000 878
0005DC D727 7000 7000 00000 00000   489          XC    0(VMCPLEN,R7),0(R7)  CLEAR IT                    00472000 910
0005E2 D201 7002 CD88 00002 00D88   490          MVC   VMCPFUNC,=AL2(VMCPCANC)  SET FOR CANCEL          00473000 886 893
0005E8 9180 8012      00012         491          TM    ACTVSTAT,ACTVSINK  ARE WE SINK FOR REQUEST?      00474000 1059 1060
0005EC 4780 C5F6      005F6         492          BZ    *+10             NO                              00475000
0005F0 D201 7002 CD90 00002 00D90   493          MVC   VMCPFUNC,=AL2(VMCPRJCT)  IF SO MUST REJECT IN STEAD OF C 00476000 886 898
0005F6 D203 7004 800C 00004 0000C   494          MVC   VMCPMID,ACTVMID  MESSAGE ID                      00477000 900 1057
0005FC D207 7008 8004 00008 00004   495          MVC   VMCPUSER,ACTVUSER  USERID                         00478000 904 1056
000602 D207 7020 CD50 00020 00D50   496          MVC   VMCPUSE,=CL8'UNAUTH'  USER DOUBLEWORD             00479000 909
000608 1817                         497          LR    R1,R7            GET ADDRESS OF PARM             00480000
00060A 831F0068                     498          DC    X'831F0068'      REJEDT/CANCEL                   00481000
                                    499          DROP  R7                                               00482000
                                    500          USING VMCPARM,R10      REVERT TO NORMAL ADDRESSING     00483000 878
00060E D203 9018 8000 00018 00000   501          MVC   PATHACTQ,ACTVLINK  REMOVE FROM HEAD OF QUEUE     00484000 1045 1055
000614 D203 8000 CAC0 00000 00AC0   502          MVC   ACTVLINK,FREEACTV  ADD TO FREE LIST              00485000 1055 947
00061A 5080 CAC0      00AC0         503          ST    R8,FREEACTV                                      00486000 947
00061E 9180 8012      00012         504          TM    ACTVSTAT,ACTVSINK  ARE WE SINK?                  00487000 1059 1060
000622 4770 C64A      0064A         505          BNZ   BFNDECR1         YES--NO DECREMENT REQUIRED       00488000 516
000626 4800 901E      0001E         506          LH    R0,PATHNACT      GET ACTIVE COUNT                00489000 1047
00062A 5B00 CD5C      00D5C         507          S     R0,=F'1'                                         00490000
00062E 47B0 C634      00634         508          BNM   *+6                                              00491000
000632 0000                         509          DC    H'0'                                             00492000
000634 4000 901E      0001E         510          STH   R0,PATHNACT                                      00493000 1047
000638 5800 CACC      00ACC         511          L     R0,NUMACTV       GET SYSTEM ACTIVE COUNT         00494000 950
00063C 5B00 CD5C      00D5C         512          S     R0,=F'1'                                         00495000
000640 47B0 C646      00646         513          BNM   *+6                                              00496000
000644 0000                         514          DC    H'0'                                             00497000
000646 5000 CACC      00ACC         515          ST    R0,NUMACTV                                       00498000 950
00064A                              516 BFNDECR1 DS    0H                                              00499000
00064A 5880 9018      00018         517          L     R8,PATHACTQ      GET NEW HEAD OF QUEUE           00500000 1045
00064E 47F0 C5D2      005D2         518          B     BFLOOP1          CONTINUE                        00501000 484
000652                              519 BFDONE1  DS    0H                                              00502000
000652 5880 9014      00014         520          L     R8,PATHPNDQ      GET FIRST PENDBLOK              00503000 1044
                                    521          USING PENDBLOK,R8                                    00504000 1065
000656 1288                         522 BFLOOP2  LTR   R8,R8            END OF LIST?                    00505000
000658 47D0 C698      00698         523          BNP   BFDONE2          YES                             00506000 539
00065C D203 9014 8000 00014 00000   524          MVC   PATHPNDQ,PENDLINK  REMOVE                        00507000 1044 1066
000662 D203 8000 CABC 00000 00ABC   525          MVC   PENDLINK,FREEPEND                                00508000 1066 946
000668 5080 CABC      00ABC         526          ST    R8,FREEPEND      ADD TO FREE LIST                00509000 946
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81
000666 4800 901C       0001C          527           LH    R0,PATHNPND    GET COUNT FOR PATH                  00510000 1046
000670 5B00 CD5C       00D5C          528           S     R0,=F'1'                           00511000
000674 47B0 C67A       0067A          529           BNM   *+6                               00512000
000678 0000                           530           DC    H'0'                               00513000
00067A 4000 901C       0001C          531           STH   R0,PATHNPND                        00514000 1046
00067E 5800 CAC8       00AC8          532           L     R0,NUMPEND     GET SYSTEM COUNT    00515000 949
000682 5B00 CD5C       00D5C          533           S     R0,=F'1'                           00516000
000686 47B0 C68C       0068C          534           BNM   *+6                               00517000
00068A 0000                           535           DC    H'0'                               00518000
00068C 5000 CAC8       00AC8          536           ST    R0,NUMPEND                         00519000 949
000690 5880 9014       00014          537           L     R8,PATHPNDQ    GET NEW FIRST ENTRY 00520000 1044
000694 47F0 C656       00656          538           B     BFLOOP2        CONTINUE            00521000 522
000698                                539 BFDONE2   DS    0H             HERE WHEN ALL PENDS GONE 00522000
000698 4800 901C       0001C          540           LH    R0,PATHNPND    GET PEND COUNT      00523000 1046
00069C 4A00 901E       0001E          541           AH    R0,PATHNACT    AND ACTV COUNT      00524000 1047
0006A0 4780 C6A6       006A6          542           BZ    *+6            BETTER BE ZERO      00525000
0006A4 0000                           543           DC    H'0'           WHAT GIVES?         00526000
0006A6 1819                           544           LR    R1,R9          SAVE ADDR OF PATHBLOK 00527000
0006A8 5890 CAB4       00AB4          545           L     R9,PATHHEAD    SCAN TO TRY TO FIND IT 00528000 944
0006AC 4170 CAB4       00AB4          546           LA    R7,PATHHEAD    LAGGING PTR FOR DELETE 00529000 944
0006B0 1299                           547 BFLOOP3   LTR   R9,R9          END OF LIST?        00530000
0006B2 4720 C6B8       006B8          548           BP    *+6            BETTER NOT BE       00531000
0006B6 0000                           549           DC    H'0'           WHERE'S THE PATHBLOK 00532000
0006B8 1991                           550           CR    R9,R1          IS THIS IT?         00533000
0006BA 4780 C6CA       006CA          551           BE    BFFND3         YES                 00534000 555
0006BE 4170 9000       00000          552           LA    R7,PATHLINK    LAGGING PTR         00535000 1039
0006C2 5890 9000       00000          553           L     R9,PATHLINK    NEXT PATHBLOK       00536000 1039
0006C6 47F0 C6B0       006B0          554           B     BFLOOP3        CONTINUE SEARCH     00537000 547
0006CA                                555 BFFND3    DS    0H                                 00538000
0006CA D203 7000 9000  00000  00000    556           MVC   0(4,R7),PATHLINK                   00539000 1039
0006D0 D203 9000 CAB8  00000  00AB8    557           MVC   PATHLINK,FREEPATH  ADD TO FREE LIST 00540000 1039 945
0006D6 5090 CAB8       00AB8          558           ST    R9,FREEPATH                        00541000 945
0006DA 5800 CAC4       00AC4          559           L     R0,NUMPATH     GET PATH COUNT      00542000 948
0006DE 5B00 CD5C       00D5C          560           S     R0,=F'1'       DECREMENT           00543000
0006E2 47B0 C6E8       006E8          561           BNM   *+6                               00544000
0006E6 0000                           562           DC    H'0'                               00545000
0006E8 5000 CAC4       00AC4          563           ST    R0,NUMPATH                         00546000 948
0006EC 1BFF                           564           SR    R15,R15        SET RETURN CODE     00547000
0006EE 47F0 C6F2       006F2          565           B     RTRN           RETURN TO CALLER    00548000 570
                                      566 *                                                  00549000
                                      567 *          RETURN FROM SVC                         00550000
                                      568 *                                                  00551000
0006F2                                569 ERROR     DS    0H             HERE FOR ERROR RETURN 00552000
0006F2                                570 RTRN      DS    0H             HERE TO RETURN      00553000
                                      571           AIF   (&CMS).CMS3                       00554000
                                      572 .CMS3     ANOP  ,                                 00559000 ?
                                      573           AIF   (&MS).MS3                         00560000
0006F2 D203 CAE0 CD60  00AE0  00D60    574           MVC   DW(4),=X'00040000'                00561000 954
0006F8 D203 CAE4 CD78  00AE4  00D78    575           MVC   DW+4(4),=A(RTRNCMS2)  ADDR FOR KEY ZERO PSW 00562000 954 577
0006FE 8200 CAE0       00AE0          576           LPSW  DW             ENTER KEY ZERO TO SET SYS SAVE AREA 00563000 954
000702                                577 RTRNCMS2  DS    0H             ENTER KEY ZERO HERE 00564000
000702 5810 0528       00528          578           L     R1,CURRSAVE    GET CURRENT SYS SAVE AREA 00565000 583
000706 50F1 005C       0005C          579           ST    R15,EGPR15(R1)  SET USER RETURN CODE 00566000 584
00070A 58ED 000C       0000C          580           L     R14,12(R13)                        00567000
00070E 980C D014       00014          581           LM    R0,R12,20(R13)  RESTORE REGS       00568000
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    ASM 0201 20.31 10/25/81
000712 07FE                        582          BR    R14          RETURN TO SVC HANDLER                  00569000
                                   583 CURRSAVE EQU   X'0528'      OFFSET OF CURRSAVE IN NUCON            00570000
                                   584 EGPR15   EQU   X'5C'       OFFSET OF R15 IN SYS SAVE              00571000
                                   585          AGO   .COM3                                               00572000
                                   586 .COM3    ANOP  ,                                                  00577000 ?
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

                                    588 *
                                    589 *                VMCF EXTERNAL INTERRUPT HANDLER
                                    590 *
000714                              591 VMCFEXT  DS    0H
                                    592          AIF   (&CMS).CMS4
                                    593 .CMS4    ANOP  ,
                                    594          AIF   (&MS).MS4
                              00714 595          USING *,R15          TEMP ADDRESSABLITY ON ENTRY
000714 8000 F4DF        00BF3       596          SSM   DISABLE        DISABLE INTERRUPTS
000718 90EC D00C        0000C       597          STM   R14,R12,12(R13)  SAVE REGS
00071C 58C0 F644        00D58       598          L     R12,=A(IEAVMCF)
                              00000 599          USING IEAVMCF,R12
                                    600          DROP  R15
000720 D501 1062 CD92   00062 00D92 601          CLC   98(2,R1),=X'4001'  VMCF INTERRUPT?
000726 4770 C9B6        009B6       602          BNE   EXTIGNOR       NO--IGNORE IT
                                    603          AGO   .COM4
                                    604 .COM4    ANOP  ,
00072A 41A0 CB10        00B10       605          LA    R10,EXTBUF     ADDR OF EXT IRPT BUFFER
                              00000 606          USING VMCMHDR,R10    ADDRESS IT
00072E 5800 CAD0        00AD0       607          L     R0,NUMIRPT     GET INTERRUPT COUNT
000732 5A00 CD5C        00D5C       608          A     R0,=F'1'       INCREMENT
000736 5000 CAD0        00AD0       609          ST    R0,NUMIRPT     SAVE FOR STATS
00073A 9501 CBF2        00BF2       610          CLI   INITFLAG,1     ARE WE INITIALIZED?
00073E 4770 C9B6        009B6       611          BNE   EXTIGNOR       NO--IGNORE INTERRUPT
000742 4810 A002        00002       612          LH    R1,VMCMFUNC    GET FUNCTION CODE
000746 1211                         613          LTR   R1,R1          VALID?
000748 4740 C9B6        009B6       614          BM    EXTIGNOR       NO--IGNORE
00074C 4910 CD80        00D80       615          CH    R1,=AL2(MAXFUNC)
000750 4720 C9B6        009B6       616          BH    EXTIGNOR       OUT OF RANGE
000754 4121 CD08        00D08       617          LA    R2,FUNCTAB(R1)  LOOK UP IN TABLE
000758 9102 2000        00000       618          TM    0(R2),IRPT     VALID FOR INTTERRUPT?
00075C 4780 C9B6        009B6       619          BZ    EXTIGNOR       NO--IGNORE
000760 D200 CBF1 A006   00BF1 00006 620          MVC   LOCTASK,VMCMSRCT  ASSUME LOCAL IS SOURCE
000766 D200 CBF0 A007   00BF0 00007 621          MVC   REMTASK,VMCMSNKT  AND SINK IS REMOTE
00076C 9180 A000        00000       622          TM    VMCMSTAT,VMCMRESP  IS THIS A RESPONSE IRPT?
000770 4780 C77E        0077E       623          BZ    EASINK1        NO--THEN LOCAL IS SINK
000774 D501 A002 CD94   00002 00D94 624          CLC   VMCMFUNC,=AL2(VMCMIDEN)  RESP FOR IDENTIFY?
00077A 4770 C78A        0078A       625          BNE   EASRC1        NO--RESPONSE GOES TO SOURCE
00077E D200 CBF1 A007   00BF1 00007 626 EASINK1  MVC   LOCTASK,VMCMSNKT  LOC TASK IS SINK
000784 D200 CBF0 A006   00BF0 00006 627          MVC   REMTASK,VMCMSRCT  REMOTE IS SOURCE
00078A                              628 EASRC1   DS    0H
00078A 5890 CAB4        00AB4       629          L     R9,PATHHEAD    START SEARCHING FOR PATH
00078E 1299                         630 EALOOP1  LTR   R9,R9          END OF LIST?
000790 47D0 C7C2        007C2       631          BNP   EADONE1        YES--TOO BAD
000794 9540 9004        00004       632          CLI   PATHUSER,C' '  NONSPECIFIC?
000798 4780 C7B0        007B0       633          BE    EANSPEC1       YES
00079C D507 9004 A008   00004 00008 634          CLC   PATHUSER,VMCMUSER  USERID MATCH?
0007A2 4770 C7BA        007BA       635          BNE   EANEXT1        NO--GET NEXT ONE
0007A6 D500 9020 CBF0   00020 00BF0 636          CLC   PATHREMT,REMTASK  REMOTE TASK ID MATCH?
0007AC 4770 C7BA        007BA       637          BNE   EANEXT1        NO--GET NEXT
0007B0 D500 9021 CBF1   00021 00BF1 638 EANSPEC1 CLC   PATHLOCT,LOCTASK  LOCAL TASK ID MATCH?
0007B6 4780 C7C6        007C6       639          BE    EAFOUND1       YES
0007BA 5890 9000        00000       640 EANEXT1  L     R9,PATHLINK    GET NEXT PATHBLOK
0007BE 47F0 C78E        0078E       641          B     EALOOP1
0007C2                              642 EADONE1  DS    0H             HERE IF NO PATH FOUND
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

0007C2 47F0 C9B6       009D6          643          B     EXTIGNOR       IGNORE THE IRPT                          00642000 797
0007C6                                644 EAFOUND1 DS    0H             HERE WHEN PATHBLOK FOUND                 00643000
                                      645 *                                                                      00644000
                                      646 *                             BUILD AND QUEUE PENDBLOK                 00645000
                                      647 *                                                                      00646000
0007C6 5800 CAFC       00AFC          648          L     R0,MAXPEND     GET MAX PENDING IRPTS FOR SPECIFIC PATH  00647000 958
0007CA 9540 9004       00004          649          CLI   PATHUSER,C' '  NONSPECIFIC?                             00648000 1040
0007CE 4770 C7D6       007D6          650          BNE   *+8             NO                                       00649000
0007D2 5800 CB00       00B00          651          L     R0,MAXPEND+4   GET MAX FOR NON-SPECIFIC                 00650000 958
0007D6 4900 901C       0001C          652          CH    R0,PATHNPND    WILL WE EXCEED LIMIT?                    00651000 1046
0007DA 4720 C81A       0081A          653          BH    EABLD2         NO--GO BUILD ONE                         00652000 672
0007DE D501 A002 CD94  00002 00D94    654          CLC   VMCMFUNC,=AL2(VMCMIDEN)  INCOMING IDENTIFY?            00653000 921 925
0007E4 4780 C9B6       009B6          655          BE    EXTIGNOR       YES--JUST IGNORE IT                      00654000 797
0007E8 5880 9014       00014          656          L     R8,PATHPNDQ    SCAN PENDQ FOR IDENTIFYS                 00655000 1044
0007EC 4170 9014       00014          657          LA    R7,PATHPNDQ                                             00656000 1044
                                00000  658          USING PENDBLOK,R8    ADDRESS PENDBLOK                         00657000 1065
0007F0 1288                           659 EALOOP2  LTR   R8,R8           END OF LIST?                             00658000
0007F2 47D0 C80C       0080C          660          BNP   EADONE2        YES                                      00659000 666
0007F6 D501 800C CD94  0000C 00D94    661          CLC   (VMCMFUNC-VMCMHDR)+PENDVMCM,=AL2(VMCMIDEN)  IDENTIFY?  00660000 921 912
0007FC 4780 C810       00810          662          BE    EADEL2         YES--REPLACE IT                          00661000 669
000800 4170 8000       00000          663          LA    R7,PENDLINK                                             00662000 1066
000804 5880 8000       00000          664          L     R8,PENDLINK    NEXT                                     00663000 1066
000808 47F0 C7F0       007F0          665          B     EALOOP2        CONTINUE SEARCH                          00664000 659
00080C                                666 EADONE2  DS    0H             HERE IF NO QUEUED IDENTIFYIES            00665000
00080C 47F0 C9B6       009B6          667          B     EXTIGNOR       IGNORE INCOMING IRPT                     00666000 797
                                      668 *                             ***THIS SHOULD BE ENHANCED****           00667000
000810                                669 EADEL2   DS    0H                                                      00668000
000810 D203 7000 8000  00000 00000    670          MVC   0(4,R7),PENDLINK  REMOVE FROM PDNQ                       00669000 1066
000816 47F0 C856       00856          671          B     EAINS2         GO FILL IN WITH NEW IRPT AND INSERT      00670000 689
00081A                                672 EABLD2   DS    0H             HERE TO BUILD A NEW PENDLBOK             00671000
00081A 5880 CABC       00ABC          673          L     R8,FREEPEND    GET ONE FROM FREE LIST                   00672000 946
00081E 1288                           674          LTR   R8,R8          IS THERE ONE?                            00673000
000820 47D0 C82E       0082E          675          BNP   EAGM2          NO--GETMAIN ONE                          00674000 678
000824 D203 CABC 8000  00ABC 00000    676          MVC   FREEPEND,PENDLINK  REMOVE FROM LIST                      00675000 946 1066
00082A 47F0 C83E       0083E          677          B     EABLD2A        CONTINUE                                 00676000 682
00082E 4100 002C       0002C          678 EAGM2    LA    R0,PENDLEN     LENGTH OF BLOCK                          00677000 1068
000832 45E0 CA10       00A10          679          BAL   R14,GETMAIN    GET CORE FOR SAM                         00678000 846
000836 D72B 1000 1000  00000 00000    680          XC    0(PENDLEN,R1),0(R1)  CLEAR IT                          00679000 1068
00083C 1881                           681          LR    R8,R1          SAVE ADDR OF IT                          00680000
00083E                                682 EABLD2A  DS    0H                                                      00681000
00083E 4800 901C       0001C          683          LH    R0,PATHNPND    GET PENDING IRPT COUNT                   00682000 1046
000842 5A00 CD5C       00D5C          684          A     R0,=F'1'                                                00683000
000846 4000 901C       0001C          685          STH   R0,PATHNPND                                             00684000 1046
00084A 5800 CAC8       00AC8          686          L     R0,NUMPEND                                              00685000 949
00084E 5A00 CD5C       00D5C          687          A     R0,=F'1'                                                00686000
000852 5000 CAC8       00AC8          688          ST    R0,NUMPEND     SYSTEM COUNT                             00687000 949
000856                                689 EAINS2   DS    0H             HERE TO INSERT                           00688000
                                      690 *                             NOTE PRIORITY GOES FIRST, FIFO TOHERWISE 00689000
000856 D227 8004 A000  00004 00000    691          MVC   PENDVMCM(VMCMLEN),VMCMHDR  COPY IRPT BUFFER            00690000 1067 936
00085C 1818                           692          LR    R1,R8          ADDR OF BUFFER TO INSERT                 00691000
00085E 5880 9014       00014          693          L     R8,PATHPNDQ    SCAN TO FIND INSERT POINT                00692000 1044
000862 4170 9014       00014          694          LA    R7,PATHPNDQ                                             00693000 1044
000866 1288                           695 EALOOP3  LTR   R8,R8           END OF LIST?                             00694000
000868 47D0 C888       00888          696          BNP   EADONE3        INSERT ON END                            00695000 704
00086C 9120 A000       00000          697          TM    VMCMSTAT,VMCMPRTY  PRIORITY REQUEST?                    00696000 916 919
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81
000870 4780 C87C       087C          698           BZ    EANEXT3         NO--INSERT ON END OF CHAIN                00697000 701
000874 9120 8004       0004          699           TM    (VMCMSTAT-VMCMHDR)+PENDVMCM,VMCMPRTY  PRTY PART OF QUEUE 00698000 916 912
000878 4780 C888       0888          700           BZ    EADONE3         NO--INSERT HERE                           00699000 704
00087C 4170 8000       0000          701 EANEXT3   LA    R7,PENDLINK     UPDATE LAGGING PTR                        00700000 1066
000880 5880 8000       0000          702           L     R8,PENDLINK     NEXT ONE                                  00701000 1066
000884 47F0 C866       0866          703           B     EALOOP3         CONTINUE SEARCH                           00702000 695
000888                               704 EADONE3   DS    0H                                                        00703000
000888 1881                          705           LR    R8,R1           RESTORE PENDBLOK ADDR                     00704000
00088A D203 8000 7000  0000  0000    706           MVC   PENDLINK,0(R7)  INSERT IN PEND QUEUE                      00705000 1066
000890 5087 0000       0000          707           ST    R8,0(R7)        COMPLETE INSERTION                        00706000
000894 4100 0004       0004          708           LA    R0,4            LENGTH OF ECB                             00707000
000898 5810 9010       0010          709           L     R1,PATHECB      ADDRESS OF ECB                            00708000 1043
00089C D203 CBE4 900C  0BE4  0000C   710           MVC   TCB,PATHTCB     TCB FOR VALIDATION                        00709000 977 1042
0008A2 45E0 C9E2       09E2          711           BAL   R14,KEYCHK      RE-VALIDATE ECB ADDRESS                   00710000 821
0008A6 4770 C8BA       08BA          712           BNZ   EANPOST3        SKIP POST IF INVALID                      00711000 717
0008AA 9140 1000       0000          713           TM    0(R1),X'40'     ALREADY POSTED?                           00712000
0008AE 4770 C8BA       08BA          714           BNZ   EANPOST3        YES--DON'T BOTHER                         00713000 717
0008B2 5800 CD7C       0D7C          715           L     R0,=X'3F000000'  COMPLETION CODE                         00714000
0008B6 45E0 C9E6       09E6          716           BAL   R14,POST        POST IT (ENDING UP WITH 7F)               00715000 826
0008BA                               717 EANPOST3  DS    0H                                                        00716000
                                     718 *                                                                         00717000
                                     719 *               DELETE ACTVBLOKS IF THIS IS FINAL INTERRUPT               00718000
                                     720 *                                                                         00719000
0008BA 9180 A000       0000          721           TM    VMCMSTAT,VMCMRESP  RESPONSE IRPT?                        00720000 916 917
0008BE 4780 C942       0942          722           BZ    EANDEL4         NO--NOTHING TO DELETE                     00721000 755
0008C2 D501 A002 CD94  0002  0D94    723           CLC   VMCMFUNC,=AL2(VMCMIDEN)  IDENTIFY?                       00722000 921 925
0008C8 4780 C942       0942          724           BE    EANDEL4         YES--NOTHING QUEUED FOR IDENTIFY (TURKEY) 00723000 755
0008CC 4170 9018       0018          725           LA    R7,PATHACTQ     ACTIVE QUEUE                              00724000 1045
0008D0 5880 9018       0018          726           L     R8,PATHACTQ     FIRST ENTRY                               00725000 1045
                                0000   727           USING ACTVBLOK,R8     ADDRESS IT                              00726000 1054
0008D4 1288                          728 EALOOP4   LTR   R8,R8           END OF LIST?                              00727000
0008D6 47D0 C942       0942          729           BNP   EADONE4         YES--STOP                                 00728000 754
0008DA D507 8004 A008  0004  0008    730           CLC   ACTVUSER,VMCMUSER  MATCH ON USERID?                       00729000 1056 930
0008E0 4770 C936       0936          731           BNE   EANEXT4         NO--NEXT ONE                              00730000 751
0008E4 D503 800C A004  000C  0004    732           CLC   ACTVMID,VMCMMID  MATCH ON MESSAGE ID?                     00731000 1057 926
0008EA 4770 C936       0936          733           BNE   EANEXT4         NO--NOT IT                                00732000 751
0008EE 9180 8012       0012          734           TM    ACTVSTAT,ACTVSINK  ARE WE THE SINK FOR REQUEST?           00733000 1059 1060
0008F2 4770 C936       0936          735           BNZ   EANEXT4         YES--THEN SHOULDN'T GET RESP IRPT         00734000 751
0008F6 D203 7000 8000  0000  0000    736           MVC   0(4,R7),ACTVLINK  REMOVE FROM LIST                       00735000 1055
0008FC D203 8000 CAC0  0000  0AC0    737           MVC   ACTVLINK,FREEACTV  ADD TO FREE LIST                       00736000 1055 947
000902 5080 CAC0       0AC0          738           ST    R8,FREEACTV                                               00737000 947
000906 4800 901E       001E          739           LH    R0,PATHNACT                                               00738000 1047
00090A 5B00 CD5C       0D5C          740           S     R0,=F'1'                                                  00739000
00090E 47B0 C916       0916          741           BNM   *+8                                                       00740000
000912 45E0 C9AE       09AE          742           BAL   R14,EXTFATAL                                              00741000 795
000916 4000 901E       001E          743           STH   R0,PATHNACT                                               00742000 1047
00091A 5800 CACC       0ACC          744           L     R0,NUMACTV                                                00743000 950
00091E 5B00 CD5C       0D5C          745           S     R0,=F'1'                                                  00744000
000922 47B0 C92A       092A          746           BNM   *+8                                                       00745000
000926 45E0 C9AE       09AE          747           BAL   R14,EXTFATAL                                              00746000 795
00092A 5000 CACC       0ACC          748           ST    R0,NUMACTV                                                00747000 950
00092E 5887 0000       0000          749           L     R8,0(R7)        NEXT ACTVBLOK                             00748000
000932 47F0 C8D4       08D4          750           B     EALOOP4         CONTINUE                                  00749000 728
000936 4170 8000       0000          751 EANEXT4   LA    R7,ACTVLINK     UPDATE ACTIVE LINK                        00750000 1055
00093A 5880 8000       0000          752           L     R8,ACTVLINK                                               00751000 1055
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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

00093E 47F0 C8D4       08D4          753           B      EALOOP4        CONTINUE                                  00752000 728
000942                               754 EADONE4   DS     0H                                                       00753000
000942                               755 EANDEL4   DS     0H                                                       00754000
                                     756 *                                                                         00755000
                                     757 *               BUILD ACTVBLOK IF REQUEST REQUIRES RESP FROM US           00756000
                                     758 *                                                                         00757000
000942 9180 A000       0000          759           TM     VMCMSTAT,VMCMRESP  IS THIS FINAL IRPT?                   00758000 916 917
000946 4770 C9A2       09A2          760           BNZ    EANBLD5        YES--DON'T BUILD ONE                      00759000 781
00094A D501 A002 CD94  0002 0D94     761           CLC    VMCMFUNC,=AL2(VMCMIDEN)  IDENTIFY?                       00760000 921 925
000950 4780 C9A2       09A2          762           BE     EANBLD5        NO WAY TO TELL THIS TURKEY                00761000 781
000954 D501 A002 CD96  0002 0D96     763           CLC    VMCMFUNC,=AL2(VMCMSENX)  SNEDX?                          00762000 921 924
00095A 4780 C9A2       09A2          764           BE     EANBLD5        NO RECV REQUIRED FOR SENDX                00763000 781
00095E 5880 CAC0       0AC0          765           L      R8,FREEACTV    GET ACTVBLOK FROM FREE LIST               00764000 947
000962 1288                          766           LTR    R8,R8          DID WE GET ONE?                           00765000
000964 47D0 C972       0972          767           BNP    EAGM5          NO--GETMAIN ONE                           00766000 770
000968 D203 CAC0 8000  0AC0 0000     768           MVC    FREEACTV,ACTVLINK  REMOVE FROM LIST                     00767000 947 1055
00096E 47F0 C982       0982          769           B      EABLD5         BUILD IT                                  00768000 774
000972 4100 0013       0013          770 EAGM5     LA     R0,ACTVLEN     LENGTH OF BLOCK                           00769000 1061
000976 45E0 CA10       0A10          771           BAL    R14,GETMAIN    ALLOC STORAGE FOR IT                      00770000 846
00097A D712 1000 1000  0000 0000     772           XC     0(ACTVLEN,R1),0(R1)  CLEAR IT                            00771000 1061
000980 1881                          773           LR     R8,R1          ADDRESS IT                                00772000
000982                               774 EABLD5    DS     0H                                                       00773000
000982 D207 8004 A008  0004 0008     775           MVC    ACTVUSER,VMCMUSER  COPY USERID                           00774000 1056 930
000988 D203 800C A004  000C 0004     776           MVC    ACTVMID,VMCMMID                                          00775000 1057 926
00098E D201 8010 A002  0010 0002     777           MVC    ACTVFUNC,VMCMFUNC  FUNCTION                              00776000 1058 921
000994 9280 8012       0012          778           MVI    ACTVSTAT,ACTVSINK  WE ARE SINK FOR REQUEST               00777000 1059 1060
000998 D203 8000 9018  0000 0018     779           MVC    ACTVLINK,PATHACTQ                                        00778000 1055 1045
00099E 5080 9018       0018          780           ST     R8,PATHACTQ    ADD TO FRONT OF ACTIVE QUEUE              00779000 1045
0009A2                               781 EANBLD5   DS     0H                                                       00780000
                                     782 *                                                                         00781000
                                     783 *               EXTERNAL INTERRUPT HANDLER EXIT                           00782000
                                     784 *                                                                         00783000
0009A2                               785 EXTEXIT   DS     0H                                                       00784000
                                     786           AIF    (&CMS).CMS5                                              00785000
                                     787 .CMS5     ANOP   ,                                                        00787000 ?
                                     788           AIF    (&MS).MS5                                                00788000
0009A2 98EC D00C       000C          789           LM     R14,R12,12(R13)  RESTORE REGS                            00789000
0009A6 07FE                          790           BR     R14            RETURN TO EXT IRPT HANDLER                00790000
                                     791           AGO    .COM5                                                    00791000
                                     792 .COM5     ANOP   ,                                                        00795000 ?
0009A8 980F CA64       0A64          793           LM     R0,R15,EXTSAVE  RESTORE REGS                             00796000 941
0009AC 07F2                          794           BR     R2             RETURN TO HANDLER                         00797000
0009AE 900F CBA4       0BA4          795 EXTFATAL  STM    R0,R15,FATALSV  SAVE REGS FROM ERROR                   00798000 976
0009B2 47F0 C9A2       09A2          796           B      EXTEXIT        GO EXIT IMMEDIATELY                       00799000 785
0009B6                               797 EXTIGNOR  DS     0H             HERE TO IGNORE INTERRUPT                  00800000
                                     798           AIF    (NOT &CMS).NOXIT2                                        00801050
0009B6 BFFF CBF4       0BF4          799           ICM    R15,B'1111',XTRPTAD  USER HANDLER?                       00801100 985
0009BA 4780 C9D2       09D2          800           BZ     NOXITRP2                                                 00801150 808
                                     801 * >>>>    STM    Done on VMCFEXT entry    <<<< *                          00801200
0009BE 50D0 CBFC       0BFC          802           ST     R13,XTRPTSA+4  SAVE OLD PTR IN NEW AREA.                 00801250 986
0009C2 18ED                          803           LR     R14,R13        MOVE OLD POINTER OVER.                    00801300
0009C4 41D0 CBF8       0BF8          804           LA     R13,XTRPTSA    ADDRESS OF NEW SAVE AREA.                 00801350 986
0009C8 50D0 E008       0008          805           ST     R13,8(,R14)    SAVE NEW POINTER IN OLD AREA.             00801400
0009CC 05EF                          806           BALR   R14,R15        GO TO USER ROUTINE.                       00801450
0009CE 58D0 D004       0004          807           L      R13,4(,R13)    RESTORE OLD SAVEAREA ADDRESS.             00801500
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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.31 10/25/81

0009D2                             808 NOXITRP2 DS    0H                                                  00801550
                                   809 .NOXIT2  ANOP  ,                                                   00801600 ?
0009D2 5800 CAD4       00AD4       810          L     R0,NUMIGNOR                                         00801650 952
0009D6 5A00 CD5C       00D5C       811          A     R0,=F'1'      INCREMENT IGNORE COUNT                00802000
0009DA 5000 CAD4       00AD4       812          ST    R0,NUMIGNOR                                         00803000 952
0009DE 47F0 C9A2       009A2       813          B     EXTEXIT       GO EXIT NOW                           00804000 785
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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    ASM 0201 20.31 10/25/81

                                    815          AIF   (&CMS).CMS6                                    00805000
                                    816 .CMS6    ANOP  ,                                              00881000 ?
                                    817          AIF   (&MS).MS6                                      00882000
                                    818 *                                                             00883000
                                    819 *              DUMMY PROTECT KEY CHECK                        00884000
                                    820 *                                                             00885000
0009E2 1BFF                         821 KEYCHK   SR    R15,R15         SET RETURN CODE/COND CODE      00886000
0009E4 07FE                         822          BR    R14             RETURN FROM DUMMY ROUTINE      00887000
                                    823 *                                                             00888000
                                    824 *              CMS POST INTERFACE                             00889000
                                    825 *                                                             00890000
0009E6                              826 POST     DS    0H                                             00891000
0009E6 5001 0000       00000        827          ST    R0,0(R1)        STORE COMPLETION CODE          00892000
0009EA 9640 1000       00000        828          OI    0(R1),X'40'     ENSURE POSTED BIT SET          00893000

                                    830 * >>>> Branch to routine CDBSPOST to schedule execution of this DML. << 00894100

0009EE 50D0 CC44       00C44        832          ST    R13,POSTSA+4    SAVE OLD POINTER IN NEW AREA   00894200 988
0009F2 50E0 CC88       00C88        833          ST    R14,RETADD      SAVE CALLED ADDRESS.           00894250 989
0009F6 18ED                         834          LR    R14,R13         MOVE OLD POINTER OVER          00894300
0009F8 41D0 CC40       00C40        835          LA    R13,POSTSA      ADDRESS OF NEW SAVEAREA        00894350 988
0009FC 50D0 E008       00008        836          ST    R13,8(,R14)     SAVE NEW POINTER IN OLD AREA   00894400
000A00 58F0 CC8C       00C8C        837          L     R15,ACDBSPST    ADDRESS OF CDBSPOST            00894450 990
000A04 05EF                         838          BALR  R14,R15         -> TO CDBSPOST                 00894500
000A06 58D0 D004       00004        839          L     R13,4(,R13)     RESTORE OLD REG SAVE AREA      00894550
000A0A 58E0 CC88       00C88        840          L     R14,RETADD      RETURN ADDRESS.                00894600 989
000A0E 07FE                         841          BR    R14             -> TO POST'S CALLER            00894650

                                    843 *                                                             00895000
                                    844 *              TEST GETMAIN ROUTINE                           00896000
                                    845 *                                                             00897000
000A10                              846 GETMAIN  DS    0H                                             00898000
000A10 4110 0007       00007        847          LA    R1,7            CONSTANT FOR DW ROUNDING       00899000
000A14 1A01                         848          AR    R0,R1                                          00900000
000A16 1601                         849          OR    R0,R1                                          00901000
000A18 1701                         850          XR    R0,R1                                          00902000
000A1A 5810 CD98       00D98        851          L     R1,CORE         GET CURRENT PTR                00903000 1107
000A1E 18F1                         852          LR    R15,R1          GET AGAIN                      00904000
000A20 1AF0                         853          AR    R15,R0          COMPUTE NEW END                00905000
000A22 59F0 CDA0       00DA0        854          C     R15,CORE+8      ROOM?                          00906000 1107
000A26 47D0 CA2C       00A2C        855          BNH   *+6             YES--VERY GOOD                 00907000
000A2A 0000                         856          DC    H'0'            OUT OF CORE                    00908000
000A2C 50F0 CD98       00D98        857          ST    R15,CORE        SAVE NEW PTR                   00909000 1107
000A30 07FE                         858          BR    R14             RETURN TO CALLER               00910000
                                    859          AGO   .COM6                                          00911000
                                    860 .COM6    ANOP  ,                                              00935000 ?
                                    861 *                                                             00936000
                                    862 *              ERROR ROUTINES                                 00937000
                                    863 *                                                             00938000
000A32 41F0 0001       00001        864 ERR1     LA    R15,1           ECB/BUFFER TOO SMALL           00939000
000A36 47F0 C6F2       006F2        865          B     ERROR                                          00940000 569
000A3A 41F0 0002       00002        866 ERR2     LA    R15,2           INVALID SUBFUNCTION CODE       00941000
000A3E 47F0 C6F2       006F2        867          B     ERROR                                          00942000 569
000A42 41F0 0004       00004        868 ERR4     LA    R15,4           MACHINE/TASK NOT AUTHORIZED    00943000
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 LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                    ASM 0201 20.31 10/25/81

                                   869 *                                                                00944000
000A46 47F0 C6F2      006F2        870          B     ERROR                                             00945000 569
000A4A 41F0 0006      00006        871 ERR6     LA    R15,6          ADDRESS VAALIDATION FAILED         00946000
000A4E 47F0 C6F2      006F2        872          B     ERROR                                             00947000 569
000A52 41F0 000A      0000A        873 ERR10    LA    R15,10         TOO MANY ACTIVE REQUESTS/PATHS     00948000
000A56 47F0 C6F2      006F2        874          B     ERROR                                             00949000 569
000A5A 4100 000C      0000C        875 ERR12    LA    R0,12          NOTHING TO UNSTACK                 00950000
000A5E 47F0 C6F2      006F2        876          B     ERROR                                             00951000 569
                                   877          VMCPARM                                                00952000
000000                             878+VMCPARM  DSECT ,                                                00009000
                                   879+*                                                               00011000
                                   880+*              VMCPARM - VMCF PARAMETER BLOCK                   00012000
                                   881+*                                                               00013000
000000                             882+VMCPFLG1 DS    X              FLAGS                              00014000
                        00080      883+VMCPAUTS EQU   X'80'          AUTHORIZE SPECIFIC                 00015000
                        00040      884+VMCPPRTY EQU   X'40'          PRIORITY                           00016000
000001                             885+         DS    X              RESERVED                           00017000
000002                             886+VMCPFUNC DS    H              FUNCTION CODE                      00018000
                        00000      887+VMCPAUTH EQU   X'0000'        AUTHORIZE                          00019000
                        00001      888+VMCPUAUT EQU   X'0001'        UNAUTHORIZE                        00020000
                        00002      889+VMCPSEND EQU   X'0002'        SEND                               00021000 ?
                        00003      890+VMCPSENR EQU   X'0003'        SEND/RECV                          00022000
                        00004      891+VMCPSENX EQU   X'0004'        SENDX                              00023000 ?
                        00005      892+VMCPRECV EQU   X'0005'        RECEIVE                            00024000
                        00006      893+VMCPCANC EQU   X'0006'        CANCEL                             00025000
                        00007      894+VMCPREPL EQU   X'0007'        REPLY                              00026000 ?
                        00008      895+VMCPQUIE EQU   X'0008'        QUIESCE                            00027000 ?
                        00009      896+VMCPRESM EQU   X'0009'        RESUME                             00028000 ?
                        0000A      897+VMCPIDEN EQU   X'000A'        IDENTIFY                           00029000 ?
                        0000B      898+VMCPRJCT EQU   X'000B'        REJECT                             00030000
                        0001F      899+VMCPUNST EQU   X'001F'        UNSTACK                            00031000
000004                             900+VMCPMID  DS    0F             MESSAGE ID                         00032000
000004                             901+VMCPUMID DS    H              USER PORTION OF MESSAGE ID         00033000 ?
000006                             902+VMCPSRCT DS    X              SOURCE TASK ID                     00034000
000007                             903+VMCPSNKT DS    X              SINK TASK ID                       00035000
000008                             904+VMCPUSER DS    CL8            USERID                             00036000
000010                             905+VMCPVADA DS    A              ADDRESS OF BUFFER A                00037000
000014                             906+VMCPLENA DS    A              LENGTH OF BUFFER A                 00038000
000018                             907+VMCPVADB DS    A              ADDRESS OF BUFFER B                00039000
00001C                             908+VMCPLENB DS    F              LENGTH OF BUFFER B                 00040000
000020                             909+VMCPUSE  DS    XL8            USER DOUBLEWORD                    00041000
                        00028      910+VMCPLEN  EQU   *-VMCPARM      LENGTH OF BLOCK                    00042000
                                   911          VMCMHDR                                                00953000
000000                             912+VMCMHDR  DSECT ,                                                00009000
                                   913+*                                                               00011000
                                   914+*              VMCMHDR - VMCF EXTERNAL INTERRUPT HEADER         00012000
                                   915+*                                                               00013000
000000                             916+VMCMSTAT DS    X                                                00014000
                        00080      917+VMCMRESP EQU   X'80'          THIS IS FINAL (RESPONSE) IRPT      00015000
                        00040      918+VMCMRJCT EQU   X'40'          SINK USER REJECTED THIS SEND OR SEND/RECV 00016000 ?
                        00020      919+VMCMPRTY EQU   X'20'          PRIORITY MESSAGE                   00017000
000001                             920+VMCMEFLG DS    X              ERROR CODE                         00018000 ?
000002                             921+VMCMFUNC DS    H              FUNCTION OF ORIGINAL REQUEST       00019000
                        00002      922+VMCMSEND EQU   X'0002'        SEND                               00020000 ?
                        00003      923+VMCMSENR EQU   X'0003'        SEND/RECV                          00021000 ?
```

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  LOC  OBJECT CODE    ADDR1 ADDR2  STMT   SOURCE STATEMENT                                  ASM 0201 20.31 10/25/81

                           00004   924+VMCMSENX EQU   X'0004'        SENDX                                  00022000
                           0000A   925+VMCMIDEN EQU   X'000A'        IDENTIFY                               00023000
000004                             926+VMCMMID  DS    0F             MESSAGE ID                             00024000
000004                             927+VMCMUMID DS    H              USER PORTION OF MESSAGE ID             00025000 ?
000006                             928+VMCMSRCT DS    X              SOURCE TASK ID                         00026000
000007                             929+VMCMSNKT DS    X              SINK TASK ID                           00027000
000008                             930+VMCMUSER DS    CL8            USERID                                 00028000
000010                             931+VMCMVADA DS    A              ADDRESS OF BUFFER A                    00029000 ?
000014                             932+VMCMLENA DS    F              LENGTH OF BUFFER A                     00030000 ?
000018                             933+VMCMVADB DS    A              ADDRESS OF BUFFER B                    00031000 ?
00001C                             934+VMCMLENB DS    F              LENGTH OF BUFFER B                     00032000 ?
000020                             935+VMCMUSE  DS    XL8            USER DOUBLEWORD                        00033000 ?
                           00028   936+VMCMLEN  EQU   *-VMCMHDR      LENGTH OF HEADER                       00034000
                                   937 *                                                                   00954000
                                   938 *          LOCAL DATA AREAS                                         00955000
                                   939 *                                                                   00956000
000A62                             940 IEAVMCF  CSECT ,                                                    00957000
000A64                             941 EXTSAVE  DS    16A            SAVE AREA FOR EXTERNAL IRPT HANDLER    00958000
000AA8                             942 CALLPSW  DS    D              CALLER'S PSW                           00959000
000AB0                             943 CALLTCB  DS    A              CALLER'S TCB                           00960000
000AB4 00000000                    944 PATHHEAD DC    A(0)           HEAD OF PATHBLOK CHAIN                 00961000
000AB8 00000000                    945 FREEPATH DC    A(0)           FREE PATHBLOK LIST                     00962000
000ABC 00000000                    946 FREEPEND DC    A(0)           FREE PENDBLOK LIST                     00963000
000AC0 00000000                    947 FREEACTV DC    A(0)           FREE ACTVBLOK LIST                     00964000
000AC4 00000000                    948 NUMPATH  DC    F'0'           NUMBER OF PATHS ACTIVE                 00965000
000AC8 00000000                    949 NUMPEND  DC    F'0'           NUMBER OF PENDING INTERRUPTS           00966000
000ACC 00000000                    950 NUMACTV  DC    F'0'           NUMBER OF ACTIVE REQUESTS              00967000
000AD0 00000000                    951 NUMIRPT  DC    F'0'           NUMBER OF EXTERNAL VMCF INTERRUPTS     00968000
000AD4 00000000                    952 NUMIGNOR DC    F'0'           NUMBER OF VMCF INTERRUPTS IGNORED      00969000
000AD8 00000000                    953 NUMSVC   DC    F'0'           NUMBER OF SVC CALLS                    00970000
000AE0                             954 DW       DS    D                                                     00971000
000AE8                             955 DW2      DS    D                                                     00972000
000AF0                             956 CPUID    DS    D              WHERE CPU ID GOES                      00973000
000AF8                             957 SAVECR0  DS    F              CONTROL REG 0 SAVED HERE               00974000
000AFC 0000000200000005            958 MAXPEND  DC    F'2,5'         PENDING INTERRUPT LIMIT                00975000
000B04 0000000200000005            959 MAXACTV  DC    F'2,5'         ACTIVE REQUEST LIMIT PER PATH          00976000
000B0C 00000032                    960 MAXPATH  DC    F'50'          MAXIMUM NUMBER OF PATHS                00977000
000B10                             961          DS    0D             ALIGN                                  00978000
000B10                             962 EXTBUF   DS    XL(VMCMLEN)    EXTERNAL IRPT BUFFER                   00979000 936
000B38                             963 XID      DS    0D             EXTENDED MACHINE ID                    00980000
000B38                             964          DS    CL8'VM/370'                                           00981000
000B40                             965 VMREL    DS    XL3            VM RELEASE                             00982000 ?
000B43                             966          DS    X,H,H          FILLER                                 00983000
000B48                             967 VMUSER   DS    CL8            OUR USERID                             00984000
000B50                             968          DS    XL8            PP BIT MAP                      VMSP   00985000
                                   969          AIF   (&CMS).CMS8                                           00986000
                                   970 .CMS8    ANOP  ,                                                   00989000 ?
                                   971          AIF   (&MS).MS8                                           00990000
000B58                             972 SAVE     DS    18A            SAVE AREA FOR VMCFINIT/VMCFTERM        00991000
                                   973          AGO   .COM8                                               00992000
                                   974 .COM8    ANOP  ,                                                   00997000 ?
000BA0 00FFF800                    975 APAGENUM DC    A(X'FFF800')   GET PAGE NUMBER                        00998000 ?
000BA4                             976 FATALSV  DS    16A            SAVE AREA FOR FATAL ERRS IN IRPT HANDLER 00999000
000BE4                             977 TCB      DS    A              CURRENT TCB FOR REQUESTS               01000000
000BE8                             978 SVCEXIT  DS    A              EXIT TO SVC HANDLER                    01001000 ?
```

```
  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81
000BEC                              979 HVCRC    DS    F             RETURN CODE FORM VMCF HVC                01002000
000BF0                              980 REMTASK  DS    X             REMOTE TASK ID                           01003000
000BF1                              981 LOCTASK  DS    X             LOCAL TASK ID                            01004000
000BF2 00                           982 INITFLAG DC    AL1(0)        INITIALIZED FLAG                         01005000
000BF3 00                           983 DISABLE  DC    X'00'         DISABLE INTERRUPTS                       01006000
                                    984          AIF   (NOT &CMS).NOXIT3                                      01006100
000BF4 00000000                     985 XITRPTAD DC    AL4(0)        USER NON X'4001' ITRPT HANDLER.          01006200
000BF8 0000000000000000             986 XTRPTSA  DC    18F'0'                                                 01006300
                                    987 .NOXIT3  ANOP  ,                                                      01006400 ?
000C40 0000000000000000             988 POSTSA   DC    18F'0'        CDBSPOST SAVE AREA                       01006500
000C88 00000000                     989 RETADD   DC    AL4(0)        ADDRESS OF POST'S CALLER.                01006600
000C8C 00000000                     990 ACDBSPST DC    V(CDBSPOST)   ADDRESS OF CDBSPOST                      01006700 -
000C90                              991          DS    0D            ALIGN                                    01007000
000C90                              992 MISCPARM DS    XL(VMCMLEN)   MISC PARM FIELD                          01008000 936
000CB8                              993 AUTHPARM DS    0D            PARM FIELD FOR AUTHORIZE                 01009100
000CB8 4000                         994          DC    AL1(VMCPPRTY,0)  FLAGS                                 01010000 884
000CBA 0000                         995          DC    AL2(VMCPAUTH) FUNCTION                                 01011000 887
000CBC 00000000                     996          DC    F'0'          MESSAGE ID                               01012000
000CC0 4040404040404040             997          DC    CL8' '        USERID                                   01013000
000CC8 00000B1000000028             998          DC    A(EXTBUF,L'EXTBUF)  BUFFER A ADDR/LEN                  01014000 962 962
000CD0 0000000000000000             999          DC    A(0,0)        BUFFER B ADDR/LEN                        01015000
000CD8 0000000000000000            1000          DC    A(0,0)        UERR DOUBLEWORD                          01016000
000CE0                             1001 UAUTPARM DS    0D            PARMS FOR UNAUTHORIZE                    01017000
000CE0 0000                        1002          DC    AL1(0,0)      FLAGS                                    01018000
000CE2 0001                        1003          DC    AL2(VMCPUAUT) FUNCTION                                 01019000 888
000CE4 00000000                    1004          DC    F'0'          MESSAGE ID                               01020000
000CE8 4040404040404040            1005          DC    CL8' '        USERID                                   01021000
000CF0 0000000000000000            1006          DC    A(0,0)        BUFFER A                                 01022000
000CF8 0000000000000000            1007          DC    A(0,0)        BUFFER B                                 01023000
000D00 0000000000000000            1008          DC    A(0,0)        USER DOUBLEWORD                          01024000
                                   1009 *                                                                     01025000
                                   1010 *              VMCF FUNCTION DECODING TABLE                           01026000
                                   1011 *                                                                     01027000
000D08                             1012 FUNCTAB DS    0X            START OF TABLE                           01028000
                        00080      1013 VALID   EQU   X'80'         CODE IS VALID FOR OS/VMCF                01029000
                        00040      1014 SOURCE  EQU   X'40'         ISSUED BY SOURCE MACHINE                 01030000
                        00020      1015 ADDRA   EQU   X'20'         ADDR/LEN A PRESENT                       01031000
                        00010      1016 ADDRB   EQU   X'10'         ADDR/LEN B PRESENT                       01032000
                        00008      1017 IMMED   EQU   X'08'         IMMEDIATE REQUEST                        01033000
                        00004      1018 RESP    EQU   X'04'         RESPONSE FUNCTIONS                       01034000
                        00002      1019 IRPT    EQU   X'02'         INTERRUPT VALID FOR THIS CODE            01035000
000D08 C8                          1020          DC    AL1(VALID+SOURCE+IMMED)  00 - AUTH                   01036000 1013 1014
000D09 C8                          1021          DC    AL1(VALID+SOURCE+IMMED)  01 - UNAUTH                 01037000 1013 1014
000D0A E2                          1022          DC    AL1(VALID+SOURCE+ADDRA+IRPT)  02 - SEND              01038000 1013 1014
000D0B F2                          1023          DC    AL1(VALID+SOURCE+ADDRA+ADDRB+IRPT)  03 - SNED/RECV   01039000 1013 1014
000D0C E2                          1024          DC    AL1(VALID+SOURCE+ADDRA+IRPT)  04 - SENDX              01040000 1013 1014
000D0D AC                          1025          DC    AL1(VALID+ADDRA+IMMED+RESP)  05 - RECEIVE             01041000 1013 1015
000D0E CC                          1026          DC    AL1(VALID+SOURCE+IMMED+RESP)  06 - CANCEL             01042000 1013 1014
000D0F AC                          1027          DC    AL1(VALID+ADDRA+IMMED+RESP)  07 - REPLY               01043000 1013 1015
000D10 00                          1028          DC    AL1(0)        08 - QUIESCE                             01044000
000D11 00                          1029          DC    AL1(0)        09 - RESUME (INVALID FOR OS/VMCF)        01045000
000D12 EA                          1030          DC    AL1(VALID+SOURCE+ADDRA+IMMED+IRPT)  10 - IDENTIFY    01046000 1013 1014
000D13 8C                          1031          DC    AL1(VALID+IMMED+RESP)  11 - REJECT                    01047000 1013 1017
000D14 0000000000000000            1032          DC    19AL1(0)      UNUSED CODES                             01048000
000D27 E8                          1033          DC    AL1(VALID+SOURCE+ADDRA+IMMED)  31 - UNSTACK          01049000 1013 1014
```

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 LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

                           0001F  1034 MAXFUNC  EQU   *-FUNCTAB-1     MAX FUNCTION CODE VALUE                  01050000
                                  1035 *                                                                       01051000
                                  1036 *                 PATHBLOK                                              01052000
                                  1037 *                                                                       01053000
000000                            1038 PATHBLOK DSECT ,                                                        01054000
000000                            1039 PATHLINK DS    A             LINK TO NEXT PATH                          01055000
000004                            1040 PATHUSER DS    CL8           USERID                                     01056000
                                  1041 *                            BLANK FOR NON-SPECIFIC                   01057000
00000C                            1042 PATHTCB  DS    A             USER TCB ADDRESS                           01058000
000010                            1043 PATHECB  DS    A             USER ECB ADDRESS                           01059000
000014                            1044 PATHPNDQ DS    A             PENDING INTERRUPT QUEUE                    01060000
000018                            1045 PATHACTQ DS    A             ACTIVE MESSAGE QUEUE                       01061000
00001C                            1046 PATHNPND DS    H             NUMBER OF PENDING INTERRUPTS               01062000
00001E                            1047 PATHNACT DS    H             NUMBER OF ACTIVE MESSAGES                  01063000
000020                            1048 PATHREMT DS    X             REMOTE TASK ID                             01064000
000021                            1049 PATHLOCT DS    X             LOCAL TASK ID                              01065000
                           00022  1050 PATHLEN  EQU   *-PATHBLOK    LENGTH OF BLOCK                            01066000
                                  1051 *                                                                       01067000
                                  1052 *                 ACTVBLOK                                              01068000
                                  1053 *                                                                       01069000
000000                            1054 ACTVBLOK DSECT ,             ACTIVE REQUEST BLOCK                       01070000
000000                            1055 ACTVLINK DS    A             LINK TO NEXT ACTVBLOK ON QUEUE             01071000
000004                            1056 ACTVUSER DS    CL8           USERID (REMOTE)                            01072000
00000C                            1057 ACTVMID  DS    F             MESSAGE ID INCLUDING SINK/SOURCE TASK IDS  01073000
000010                            1058 ACTVFUNC DS    H             FUNCTION                                   01074000
000012                            1059 ACTVSTAT DS    X             STATUS FLAGS                               01075000
                           00080  1060 ACTVSINK EQU   X'80'          WE ARE SINK FOR THIS REQUEST               01076000
                           00013  1061 ACTVLEN  EQU   *-ACTVBLOK    LENGTH OF BLOCK                            01077000
                                  1062 *                                                                       01078000
                                  1063 *                 PENDBLOK                                              01079000
                                  1064 *                                                                       01080000
000000                            1065 PENDBLOK DSECT ,             PENDING INTERRUPT BLOCK                    01081000
000000                            1066 PENDLINK DS    A             LINK TO NEXT ON QUEUE                      01082000
000004                            1067 PENDVMCM DS    XL(VMCMLEN)   INTERRUPT HEADER                           01083000  936
                           0002C  1068 PENDLEN  EQU   *-PENDBLOK    LENGTH OF BLOCK                            01084000
                                  1069 *                                                                       01085000
                                  1070 *                 LITERALS                                              01086000
                                  1071 *                                                                       01087000
000D28                            1072 IEAVMCF  CSECT ,                                                        01088000
000D28                            1073          LTORG ,                                                        01089000
000D28 FFE4000000000000           1074                =X'FFE4000000000000'
000D30 5C404040404040             1075                =CL8'*'
000D38 E5D461E2D7404040           1076                =CL8'VM/SP'
000D40 E5D461F3F7F04040           1077                =CL8'VM/370'
000D48 C5E7E3C5D9D5C1D3           1078                =CL8'EXTERNAL'
000D50 E4D5C1E4E3C84040           1079                =CL8'UNAUTH'
000D58 00000000                   1080                =A(IEAVMCF)                                                12
000D5C 00000001                   1081                =F'1'
000D60 00040000                   1082                =X'00040000'
000D64 00000232                   1083                =A(BAEXHVC)                                                202
000D68 0000023A                   1084                =A(BAEXDONE)                                               204
000D6C 0000000B                   1085                =F'11'
000D70 0000000C                   1086                =F'12'
000D74 00000004                   1087                =F'4'
000D78 00000702                   1088                =A(RTRNCMS2)                                               577
```

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  LOC  OBJECT CODE     ADDR1 ADDR2  STMT   SOURCE STATEMENT                                ASM 0201 20.31 10/25/81

000D7C 3F000000                   1089                =X'3F000000'
000D80 001F                       1090                =AL2(MAXFUNC)                                          1034
000D82 0000                       1091                =AL2(VMCPAUTH)                                         887
000D84 001F                       1092                =AL2(VMCPUNST)                                         899
000D86 0001                       1093                =AL2(VMCPUAUT)                                         888
000D88 0006                       1094                =AL2(VMCPCANC)                                         893
000D8A 0005                       1095                =AL2(VMCPRECV)                                         892
000D8C 0003                       1096                =AL2(VMCPSENR)                                         890
000D8E 0028                       1097                =AL2(VMCMLEN)                                          936
000D90 000B                       1098                =AL2(VMCPRJCT)                                         898
000D92 4001                       1099                =X'4001'
000D94 000A                       1100                =AL2(VMCMIDEN)                                         925
000D96 0004                       1101                =AL2(VMCMSENX)                                         924
                                  1102          AIF   (&MS).MS7                                 01090000
                                  1103          AIF   (NOT &CMS).COM7                           01091000
                                  1104 *                                                        01092000
                                  1105 *              CORE FOR NON-SQA TESTING                  01093000
                                  1106 *                                                        01094000
000D98 0000100000001000           1107 CORE     DC    A(AREA,AREA,AREAEND)  PTRS FOR STORAGE MGMT 01095000 1111 1111
000DA4                    01000   1108          ORG   IEAVMCF+4096                              01096000 12
001000                    01000   1109          ORG   ,                                       01097000
001000                            1110          DS    0D              ALIGN                   01098000
001000                            1111 AREA     DS    4096F           CORE AREA               01099000
                          05000   1112 AREAEND  EQU   *               END OF AREA             01100000
                                  1113          AGO   .COM7                                   01101000
                                  1114 .COM7    ANOP  ,                                       01104000 ?
                                  1115 *                                                        01105000
                                  1116 *              REGISTER EQUATES                          01106000
                                  1117 *                                                        01107000
                                  1118          EQUREGS                                       01108000
                          00000   1119+R0       EQU   0                                       00062000 ?
                          00001   1120+R1       EQU   1                                       00062000 ?
                          00002   1121+R2       EQU   2                                       00062000 ?
                          00003   1122+R3       EQU   3                                       00062000 ?
                          00004   1123+R4       EQU   4                                       00062000 ?
                          00005   1124+R5       EQU   5                                       00062000 ?
                          00006   1125+R6       EQU   6                                       00062000 ?
                          00007   1126+R7       EQU   7                                       00062000 ?
                          00008   1127+R8       EQU   8                                       00062000 ?
                          00009   1128+R9       EQU   9                                       00062000 ?
                          0000A   1129+R10      EQU   10                                      00062000 ?
                          0000B   1130+R11      EQU   11                                      00062000 ?
                          0000C   1131+R12      EQU   12                                      00062000 ?
                          0000D   1132+R13      EQU   13                                      00062000 ?
                          0000E   1133+R14      EQU   14                                      00062000 ?
                          0000F   1134+R15      EQU   15                                      00062000 ?
                                  1135          END   ,               END OF MODULE           01109000
```

POS.ID	REL.ID	FLAGS	ADDRESS
0001	0001	0C	000024
0001	0001	0C	00002A
0001	0001	08	000041
0001	0001	0C	00004A
0001	0001	0C	000082
0001	0001	0C	0000A2
0001	0001	0C	000CC8
0001	0001	0C	000D58
0001	0001	0C	000D64
0001	0001	0C	000D68
0001	0001	0C	000D78
0001	0001	0C	000D98
0001	0001	0C	000D9C
0001	0001	0C	000DA0
0001	0002	1C	000C8C

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.31 10/25/81

```
ACDBSPST 00004 00000C8C 00990  00837
ACTVBLOK 00001 00000000 01054  00213 00483 00727 01061
ACTVFUNC 00002 00000010 01058  00230 00269 00777
ACTVLEN  00001 00000013 01061  00218 00221 00770 00772
ACTVLINK 00004 00000000 01055  00216 00223 00285 00286 00303 00304 00501 00502 00736 00737 00751 00752 00768 00779
ACTVMID  00004 0000000C 01057  00229 00257 00494 00732 00776
ACTVSINK 00001 00000080 01060  00261 00266 00288 00491 00504 00734 00778
ACTVSTAT 00001 00000012 01059  00231 00261 00266 00288 00491 00504 00734 00778
ACTVUSER 00008 00000004 01056  00225 00226 00228 00495 00730 00775
ADDRA    00001 00000020 01015  00162 01022 01023 01024 01025 01027 01030 01033
ADDRB    00001 00000010 01016  00168 01023
AREA     00004 00001000 01111  01107 01107
AREAEND  00001 00005000 01112  01107
AUTH     00002 00000408 00351  00121
AUTHDUPL 00002 000005AC 00469  00426 00430
AUTHPARM 00008 00000CB8 00993  00375
AUTH2    00002 00000468 00385  00353 00380
BABLD2   00002 00000270 00222  00217
BACANC3  00004 00000316 00266  00260
BADEL3   00002 00000336 00278  00265 00268 00270
BADONE1  00002 0000017C 00152  00141
BADONE3  00002 00000386 00306  00256
BAEXDONE 00004 0000023A 00204  01084
BAEXHVC  00004 00000232 00202  01083
BAFOUND1 00002 00000180 00154  00149
BAGM2    00004 00000260 00218  00215
BAIMMED1 00002 000001F6 00190  00183
BALOOP1  00002 00000148 00140  00151
BALOOP3  00002 000002E6 00255  00302 00305
BANADDRA 00004 000001AA 00168  00163
BANADDRB 00002 000001C2 00174  00169
BANBLD2  00002 000002B8 00238  00209 00211
BANDECR3 00002 00000372 00300  00289
BANEXT1  00004 00000174 00150  00145 00147
BANEXT3  00004 0000037A 00303  00258 00262 00267 00273
BANRESP3 00002 00000386 00307  00243 00251
BANSPEC1 00006 0000016A 00148  00143
BARECV3  00006 00000322 00269  00264
BARESP3  00002 000002DE 00252  00246 00248 00250
BASRC1   00002 00000144 00137  00134
BEDONE1  00002 00000510 00434  00411 00428
BEGM1    00004 0000052E 00442  00439
BEINS1   00002 0000053E 00446  00441
BELOOP1  00002 000004A8 00410  00433
BENEXT1  00004 00000504 00431  00415 00421 00423 00425
BENSPEC1 00004 000004F2 00427  00413
BFDONE1  00002 00000652 00519  00485
BFDONE2  00002 00000698 00539  00523
BFFND3   00002 000006CA 00555  00551
BFLOOP1  00002 000005D2 00484  00518
BFLOOP2  00002 00000656 00522  00538
BFLOOP3  00002 000006B0 00547  00554
BFNDECR1 00002 0000064A 00516  00505
CALLPSW  00008 00000AA8 00942  00101 00158 00198 00470
CALLTCB  00004 00000AB0 00943  00100 00100 00160 00452 00472
```

ASM 0201 20.31 10/25/81

SYMBOL	LEN	VALUE	DEFN	REFERENCES
CORE	00004	00000D98	01107	00851 00854 00857
CPUID	00008	00000AF0	00956	00357 00358
CURRSAVE	00001	00000528	00583	00578
DISABLE	00001	00000BF3	00983	00097 00596
DMS0001A	00002	00000028	00035	00032
DMS0002A	00002	00000048	00044	00039
DMS0003A	00002	00000080	00069	00066
DMS0004A	00002	000000A0	00078	00073
DW	00008	00000AE0	00954	00196 00197 00198 00201 00574 00575 00576
DW2	00008	00000AE8	00955	00199 00200 00203
EABLD2	00002	0000081A	00672	00653
EABLD2A	00002	0000083E	00682	00677
EABLD5	00002	00000982	00774	00769
EADEL2	00002	00000810	00669	00662
EADONE1	00002	000007C2	00642	00631
EADONE2	00002	0000080C	00666	00660
EADONE3	00002	00000888	00704	00696 00700
EADONE4	00002	00000942	00754	00729
EAFOUND1	00002	000007C6	00644	00639
EAGM2	00004	0000082E	00678	00675
EAGM5	00004	00000972	00770	00767
EAINS2	00002	00000856	00689	00671
EALOOP1	00002	0000078E	00630	00641
EALOOP2	00002	000007F0	00659	00665
EALOOP3	00002	00000866	00695	00703
EALOOP4	00002	000008D4	00728	00750 00753
EANBLD5	00002	000009A2	00781	00760 00762 00764
EANDEL4	00002	00000942	00755	00722 00724
EANEXT1	00004	000007BA	00640	00635 00637
EANEXT3	00004	0000087C	00701	00698
EANEXT4	00004	00000936	00751	00731 00733 00735
EANPOST3	00002	000008BA	00717	00712 00714
EANSPEC1	00006	000007B0	00638	00633
EASINK1	00006	0000077E	00626	00623
EASRC1	00002	0000078A	00628	00625
EGPR15	00001	0000005C	00584	00579
ERROR	00002	000006F2	00569	00865 00867 00870 00872 00874 00876
ERR1	00004	00000A32	00864	00320 00388
ERR10	00004	00000A52	00873	00189 00436
ERR12	00004	00000A5A	00875	00317
ERR2	00004	00000A3A	00866	00114 00116 00119
ERR4	00004	00000A42	00868	00123 00153 00161 00473 00475
ERR6	00004	00000A4A	00871	00110 00167 00173 00391
EXTBUF	00040	00000B10	00962	00605 00998 00998
EXTEXIT	00002	000009A2	00785	00796 00813
EXTFATAL	00004	000009AE	00795	00742 00747
EXTIGNOR	00002	000009B6	00797	00602 00611 00614 00616 00619 00643 00655 00667
EXTSAVE	00004	00000A64	00941	00793
FATALSV	00004	00000BA4	00976	00795
FREEACTV	00004	00000AC0	00947	00212 00216 00286 00287 00502 00503 00737 00738 00765 00768
FREEPATH	00004	00000AB8	00945	00437 00440 00557 00558
FREEPEND	00004	00000ABC	00946	00322 00323 00525 00526 00673 00676
FUNCTAB	00001	00000D08	01012	00117 00617 01034
GETMAIN	00002	00000A10	00846	00219 00443 00679 00771
HVCRC	00004	00000BEC	00979	00204 00244 00271 00308

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.31 10/25/81

```
IEAVMCF  00001 00000000 00012  00024 00058 00099 00599 00940 01072 01080 01108
IGC211   00002 000000B2 00091  00042
IMMED    00001 00000008 01017  00182 00210 01020 01021 01025 01026 01027 01030 01031 01033
INITFAIL 00002 00000466 00381  00359 00366 00378
INITFLAG 00001 00000BF2 00982  00122 00352 00379 00610
INITOK   00002 0000043C 00369  00364
IRPT     00001 00000002 01019  00618 01022 01023 01024 01030
KEYCHK   00002 000009E2 00821  00109 00166 00172 00339 00390 00711
LOCTASK  00001 00000BF1 00981  00131 00135 00148 00620 00626 00638
MAXACTV  00004 00000B04 00959  00184 00187
MAXFUNC  00001 0000001F 01034  01090
MAXPATH  00004 00000B0C 00960  00435
MAXPEND  00004 00000AFC 00958  00648 00651
MISCPARM 00040 00000C90 00992  00191 00486
NOXITRP  00002 000004A0 00402  00395 00398 00400
NOXITRP2 00002 000009D2 00808  00800
NUMACTV  00004 00000ACC 00950  00235 00237 00295 00299 00511 00515 00744 00748
NUMIGNOR 00004 00000AD4 00952  00810 00812
NUMIRPT  00004 00000AD0 00951  00607 00609
NUMPATH  00004 00000AC4 00948  00435 00449 00451 00559 00563
NUMPEND  00004 00000AC8 00949  00324 00328 00532 00536 00686 00688
NUMSVC   00004 00000AD8 00953  00104 00106
PATHACTQ 00004 00000018 01045  00223 00224 00253 00254 00455 00455 00482 00501 00517 00725 00726 00779 00780
PATHBLOK 00001 00000000 01038  00139 01050
PATHECB  00004 00000010 01043  00338 00453 00465 00474 00709
PATHHEAD 00004 00000AB4 00944  00138 00408 00409 00545 00546 00629
PATHLEN  00001 00000022 01050  00442 00445
PATHLINK 00004 00000000 01039  00150 00431 00432 00440 00447 00552 00553 00556 00557 00640
PATHLOCT 00001 00000021 01049  00148 00422 00429 00458 00638
PATHNACT 00002 0000001E 01047  00188 00232 00234 00290 00294 00457 00457 00506 00510 00541 00739 00743
PATHNPND 00002 0000001C 01046  00329 00333 00456 00456 00527 00531 00540 00652 00683 00685
PATHPNDQ 00004 00000014 01044  00314 00321 00341 00454 00454 00520 00524 00537 00656 00657 00693 00694
PATHREMT 00001 00000020 01048  00146 00424 00459 00636
PATHTCB  00004 0000000C 01042  00160 00452 00472 00710
PATHUSER 00008 00000004 01040  00142 00144 00185 00412 00420 00464 00632 00634 00649
PENDBLOK 00001 00000000 01065  00315 00521 00658 01068
PENDLEN  00001 0000002C 01068  00678 00680
PENDLINK 00004 00000000 01066  00321 00322 00524 00525 00663 00664 00670 00676 00701 00702 00706
PENDVMCM 00040 00000004 01067  00335 00661 00691 00699
POST     00002 000009E6 00826  00716
POSTSA   00004 00000C40 00988  00832 00835
REMTASK  00001 00000BF0 00980  00132 00136 00146 00621 00627 00636
RESP     00001 00000004 01018  00242 01025 01026 01027 01031
RETADD   00004 00000C88 00989  00833 00840
RTRN     00002 000006F2 00570  00309 00347 00468 00477 00565
RTRNCMS2 00002 00000702 00577  01088
R0       00001 00000000 01119  00104 00105 00106 00108 00164 00170 00184 00187 00188 00218 00232 00233 00234 00235 00236
                               00237 00290 00291 00294 00295 00296 00299 00318 00319 00324 00325 00328 00329 00330 00333
                               00337 00361 00386 00387 00442 00449 00450 00451 00506 00507 00510 00511 00512 00515 00527
                               00528 00531 00532 00533 00536 00540 00541 00559 00560 00563 00581 00607 00608 00609 00648
                               00651 00652 00678 00683 00684 00685 00686 00687 00688 00708 00715 00739 00740 00743 00744
                               00745 00748 00770 00793 00795 00810 00811 00812 00827 00848 00849 00850 00853 00975
R1       00001 00000001 01120  00107 00112 00113 00113 00115 00117 00120 00127 00130 00144 00171 00191 00192 00193 00195
                               00220 00221 00221 00334 00335 00338 00344 00344 00360 00373 00375 00389 00396 00399 00416
                               00419 00420 00444 00445 00445 00460 00463 00464 00465 00466 00466 00497 00544 00550 00578
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.31 10/25/81

```
                                 00579 00601 00612 00613 00613 00615 00617 00680 00680 00681 00692 00705 00709 00713 00772
                                 00772 00773 00827 00828 00847 00848 00849 00850 00851 00852
R10      00001 0000000A 01129    00107 00111 00487 00500 00605 00606
R12      00001 0000000C 01131    00021 00023 00024 00047 00055 00057 00058 00081 00095 00096 00098 00099 00581 00597 00598
                                 00599 00789
R13      00001 0000000D 01132    00021 00027 00028 00029 00046 00046 00047 00055 00061 00062 00063 00080 00080 00081 00096
                                 00580 00581 00597 00789 00802 00803 00804 00805 00807 00807 00832 00834 00835 00836 00839
                                 00839
R14      00001 0000000E 01133    00021 00026 00027 00028 00029 00047 00049 00055 00060 00061 00062 00063 00081 00083 00096
                                 00109 00166 00172 00219 00339 00390 00443 00580 00582 00597 00679 00711 00716 00742 00747
                                 00771 00789 00790 00803 00805 00806 00822 00833 00834 00836 00838 00840 00841 00858
R15      00001 0000000F 01134    00022 00025 00048 00048 00056 00059 00082 00082 00204 00208 00208 00244 00245 00245 00247
                                 00249 00271 00272 00272 00308 00346 00346 00377 00377 00467 00467 00476 00476 00564 00564
                                 00579 00595 00600 00793 00795 00799 00806 00821 00821 00837 00838 00852 00853 00854 00857
                                 00864 00866 00868 00871 00873
R2       00001 00000002 01121    00117 00118 00133 00162 00168 00182 00210 00242 00617 00618 00794
R7       00001 00000007 01126    00254 00285 00301 00303 00409 00431 00447 00448 00486 00488 00489 00489 00497 00499 00546
                                 00552 00556 00657 00663 00670 00694 00701 00706 00707 00725 00736 00749 00751
R8       00001 00000008 01127    00212 00213 00214 00214 00220 00224 00253 00255 00255 00287 00301 00304 00314 00315 00316
                                 00316 00323 00341 00342 00342 00482 00483 00484 00484 00503 00517 00520 00521 00522 00522
                                 00526 00537 00656 00658 00659 00659 00664 00673 00674 00674 00681 00692 00693 00695 00695
                                 00702 00705 00707 00726 00727 00728 00728 00738 00749 00752 00765 00766 00766 00773 00780
R9       00001 00000009 01128    00138 00139 00140 00140 00150 00408 00410 00410 00432 00437 00438 00438 00444 00448 00544
                                 00545 00547 00547 00550 00553 00558 00629 00630 00630 00640
SAVE     00004 00000B58 00972    00026 00060
SAVECRO  00004 00000AF8 00957    00370 00371 00372
SOURCE   00001 00000040 01014    00133 01020 01021 01022 01023 01024 01026 01030 01033
TCB      00004 00000BE4 00977    00710
UAUTPARM 00008 00000CE0 01001    00373
UNAUTH   00002 000005CE 00481    00178
UNSTACK  00002 0000038E 00313    00176
UNSTK2   00002 00000402 00345    00340 00343
VALID    00001 00000080 01013    00118 01020 01021 01022 01023 01024 01025 01026 01027 01030 01031 01033
VMCFEXT  00002 00000714 00591    00034
VMCFINIT 00004 00000000 00021    00020 00022
VMCFTERM 00004 0000005A 00055    00054 00056
VMCMFUNC 00002 00000002 00921    00612 00624 00654 00661 00723 00761 00763 00777
VMCMHDR  00001 00000000 00912    00606 00661 00691 00699 00936
VMCMIDEN 00001 0000000A 00925    01100
VMCMLEN  00001 00000028 00936    00335 00691 00962 00992 01067 01097
VMCMMID  00004 00000004 00926    00732 00776
VMCMPRTY 00001 00000020 00919    00697 00699
VMCMRESP 00001 00000080 00917    00622 00721 00759
VMCMSENX 00001 00000004 00924    01101
VMCMSNKT 00001 00000007 00929    00621 00626
VMCMSRCT 00001 00000006 00928    00620 00627
VMCMSTAT 00001 00000000 00916    00622 00697 00699 00721 00759
VMCMUSER 00008 00000008 00930    00634 00730 00775
VMCPARM  00001 00000000 00878    00111 00192 00193 00195 00488 00500 00910
VMCPAUTH 00001 00000000 00887    00995 01091
VMCPAUTS 00001 00000080 00883    00414 00427
VMCPCANC 00001 00000006 00893    01094
VMCPFLG1 00001 00000000 00882    00414 00427
VMCPFUNC 00002 00000002 00886    00112 00175 00177 00230 00259 00263 00490 00493
VMCPLEN  00001 00000028 00910    00108 00192 00489
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.31 10/25/81

```
VMCPLENA 00004 00000014 00906  00164 00318 00386
VMCPLENB 00004 0000001C 00908  00170
VMCPMID  00004 00000004 00900  00229 00257 00494
VMCPPRTY 00001 00000040 00884  00994
VMCPRECV 00001 00000005 00892  01095
VMCPRJCT 00001 0000000B 00898  01098
VMCPSENR 00001 00000003 00890  01096
VMCPSNKT 00001 00000007 00903  00132 00135 00424 00459
VMCPSRCT 00001 00000006 00902  00131 00136 00422 00429 00458
VMCPUAUT 00001 00000001 00888  01003 01093
VMCPUNST 00001 0000001F 00899  01092
VMCPUSE  00008 00000020 00909  00393 00496
VMCPUSER 00008 00000008 00904  00127 00128 00193 00195 00225 00416 00417 00460 00461 00495
VMCPVADA 00004 00000010 00905  00165 00334 00389 00453 00474
VMCPVADB 00004 00000018 00907  00171 00399 00401
VMUSER   00008 00000B48 00967  00130 00195 00228 00419 00463
XID      00008 00000B38 00963  00360 00363 00365
XTRPTAD  00004 00000BF4 00985  00396 00401 00799
XTRPTSA  00004 00000BF8 00986  00802 00804
```

SYMBOL LEN VALUE DEFN REFERENCES ASM 0201 20.31 10/25/81

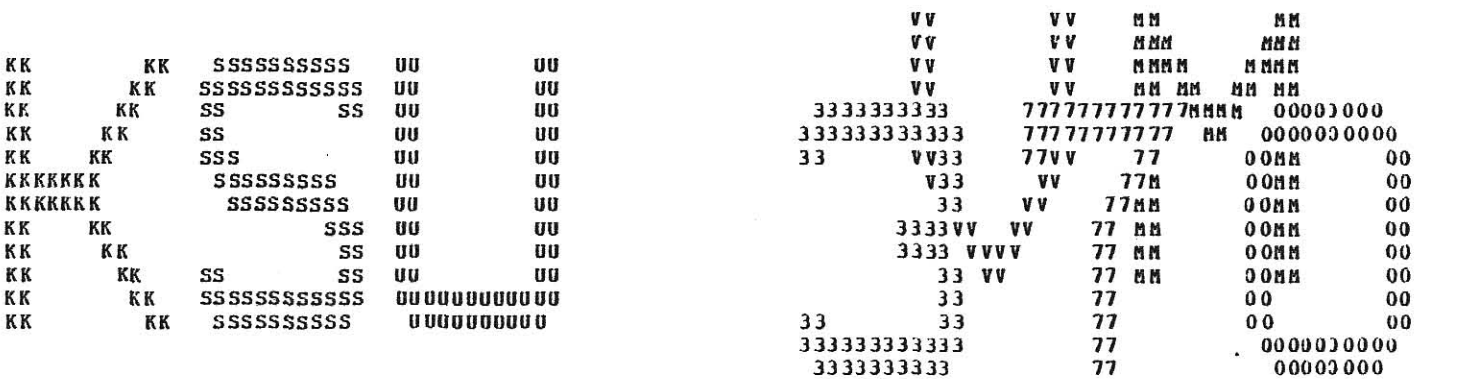
```
=X'FFE4000000000000'
         00008 00000D28 01074  00101
=CL8'*'  00008 00000D30 01075  00128 00193 00226 00417 00461
=CL8'VM/SP'
         00008 00000D38 01076  00363
=CL8'VM/370'
         00008 00000D40 01077  00365
=CL8'EXTERNAL'
         00008 00000D48 01078  00393
=CL8'UNAUTH'
         00008 00000D50 01079  00496
=A(IEAVMCF)
         00004 00000D58 01080  00023 00057 00098 00598
=F'1'    00004 00000D5C 01081  00105 00233 00236 00291 00296 00325 00330 00450 00507 00512 00528 00533 00560 00608 00684
                               00687 00740 00745 00811
=X'00040000'
         00004 00000D60 01082  00196 00199 00574
=A(BAEXHVC)
         00004 00000D64 01083  00197
=A(BAEXDONE)
         00004 00000D68 01084  00200
=F'11'   00004 00000D6C 01085  00247
=F'12'   00004 00000D70 01086  00249
=F'4'    00004 00000D74 01087  00387
=A(RTRNCMS2)
         00004 00000D78 01088  00575
=X'3F000000'
         00004 00000D7C 01089  00715
=AL2(MAXFUNC)
         00002 00000D80 01090  00115 00615
=AL2(VMCPAUTH)
         00002 00000D82 01091  00120
=AL2(VMCPUNST)
         00002 00000D84 01092  00175
=AL2(VMCPUAUT)
         00002 00000D86 01093  00177
=AL2(VMCPCANC)
         00002 00000D88 01094  00259 00490
=AL2(VMCPRECV)
         00002 00000D8A 01095  00263
=AL2(VMCPSENR)
         00002 00000D8C 01096  00269
=AL2(VMCMLEN)
         00002 00000D8E 01097  00319
=AL2(VMCPRJCT)
         00002 00000D90 01098  00493
=X'4001' 00002 00000D92 01099  00601
=AL2(VMCMIDEN)
         00002 00000D94 01100  00624 00654 00661 00723 00761
=AL2(VMCMSENX)
         00002 00000D96 01101  00763
```

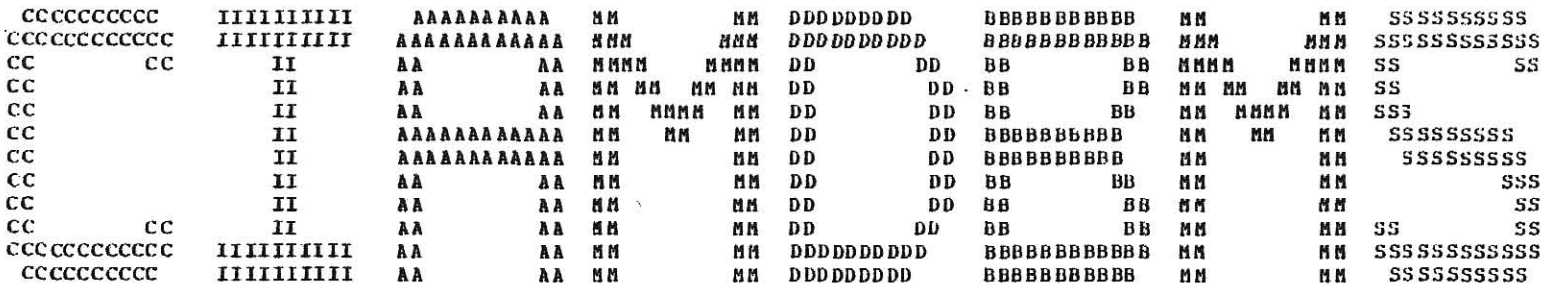
ASM 0201 20.31 10/25/81

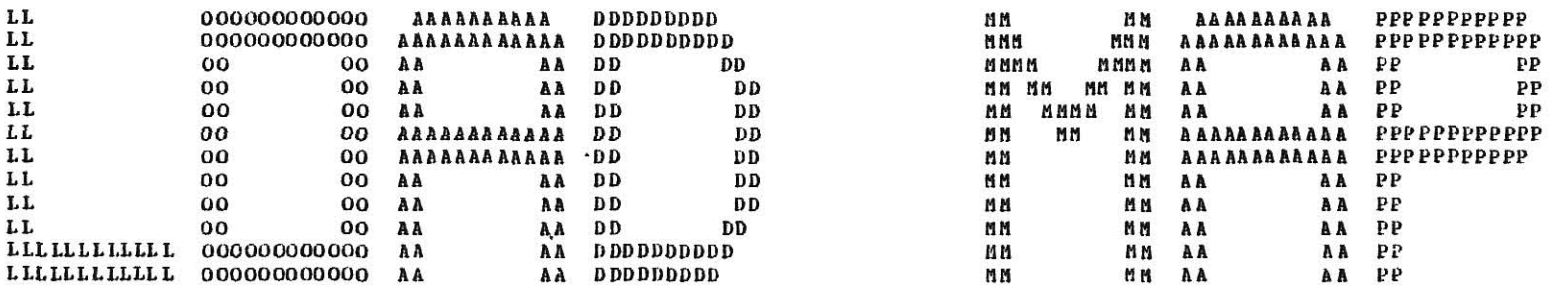
```
NO STATEMENTS FLAGGED IN THIS ASSEMBLY
HIGHEST SEVERITY WAS    0
OPTIONS FOR THIS ASSEMBLY
  ALIGN, ALOGIC, BUFSIZE(STD), NODECK, ESD, FLAG(0), LINECOUNT(55), LIST, NOMCALL, YFLAG, WORKSIZE(2097152)
  NOMLOGIC, NUMBER, OBJECT, NORENT, RLD, STMT, NOLIBMAC, TERMINAL, NOTEST, XREF(SHORT)
  SYSPARM()
WORK FILE BUFFER SIZE/NUMBER = 7294/ 1
TOTAL RECORDS READ FROM SYSTEM INPUT       1158
TOTAL RECORDS READ FROM SYSTEM LIBRARY      982
TOTAL RECORDS PUNCHED                        64
TOTAL RECORDS PRINTED                      1516
```

Appendix I

CIAMDBMS - LOAD MAP


KK KK SSSSSSSSSS UU UU
KK KK SSSSSSSSSSS UU UU
KK KK SS SS UU UU
KK KK SS UU UU
KK KK SSS UU UU
KKKKKKK SSSSSSSSS UU UU
KKKKKKK SSSSSSSSS UU UU
KK KK SSS UU UU
KK KK SS UU UU
KK KK SS SS UU UU
KK KK SSSSSSSSSSS UUUUUUUUUUU
KK KK SSSSSSSSS UUUUUUUUU
VV VV MM MM
VV VV MMM MMM
VV VV MMMM MMMM
VV VV MM MM MM MM
3333333333 7777777777MMMM 00000000
333333333333 77777777777 MM 0000000000
33 VV33 77VV 77 00MM 00
V33 VV 77M 00MM 00
33 VV 77MM 00MM 00
3333VV VV 77 MM 00MM 00
3333 VVVV 77 MM 00MM 00
33 VV 77 MM 00MM 00
33 77 00 00
33 33 77 00 00
333333333333 77 0000000000
3333333333 77 00000000


CCCCCCCCCC IIIIIIIIII AAAAAAAAAA MM MM DDDDDDDDD BBBBBBBBBBB MM MM SSSSSSSSS
CCCCCCCCCCCC IIIIIIIIII AAAAAAAAAAAA MMM MMM DDDDDDDDDD BBBBBBBBBBBB MMM MMM SSSSSSSSSSS
CC CC II AA AA MMMM MMMM DD DD BB BB MMMM MMMM SS SS
CC II AA AA MM MM MM MM DD DD BB BB MM MM MM MM SS
CC II AA AA MM MMMM MM DD DD BB BB MM MMMM MM SSS
CC II AAAAAAAAAAAA MM MM MM DD DD BBBBBBBBBB MM MM MM SSSSSSSS
CC II AAAAAAAAAAAA MM MM DD DD BBBBBBBBBB MM MM SSSSSSSS
CC II AA AA MM MM DD DD BB BB MM MM SSS
CC II AA AA MM MM DD DD BB BB MM MM SS
CC CC II AA AA MM MM DD DD BB BB MM MM SS SS
CCCCCCCCCCC IIIIIIIIII AA AA MM MM DDDDDDDDD BBBBBBBBBBB MM MM SSSSSSSSSSS
CCCCCCCCCC IIIIIIIIII AA AA MM MM DDDDDDDDD BBBBBBBBBBB MM MM SSSSSSSSS


LL 000000000000 AAAAAAAAAA DDDDDDDDD MM MM AAAAAAAAAA PPPPPPPPPPP
LL 000000000000 AAAAAAAAAAAA DDDDDDDDDD MMM MMM AAAAAAAAAAAA PPPPPPPPPPPP
LL 00 00 AA AA DD DD MMMM MMMM AA AA PP PP
LL 00 00 AA AA DD DD MM MM MM MM AA AA PP PP
LL 00 00 AA AA DD DD MM MMMM MM AA AA PP PP
LL 00 00 AAAAAAAAAAAA DD DD MM MM MM AAAAAAAAAAAA PPPPPPPPPPPP
LL 00 00 AAAAAAAAAAAA DD DD MM MM AAAAAAAAAAAA PPPPPPPPPPP
LL 00 00 AA AA DD DD MM MM AA AA PP
LL 00 00 AA AA DD DD MM MM AA AA PP
LL 00 00 AA AA DD DD MM MM AA AA PP
LLLLLLLLLLL 000000000000 AA AA DDDDDDDDD MM MM AA AA PP
LLLLLLLLLLL 000000000000 AA AA DDDDDDDDD MM MM AA AA PP

```
INVALID CARD - *
INVALID CARD - *          USLIB1    MACLIB   Z2 CMS29D 10/17/81  10:00
INVALID CARD - *          DMSSP     MACLIB   S2 VMSP90 04/21/81  00:30
INVALID CARD - *          CMSLIB    MACLIB   S2 VMSP90 04/21/81  01:23
INVALID CARD - *          OSMACRO   MACLIB   S2 VMSP90 12/09/78  05:02
INVALID CARD - *          CIAM      MACLIB   D1 6N9192 90/17/81  10:05
INVALID CARD - *          CIAMDBMS  ASSEMBLE D1 6N9192 90/17/81  10:18
CIAMDBMS SD 020000
CDBSINIT    020000
CDBSPOST    02011C
CDBSTERM    02056E
CDBSTOUT    020740
CDBS$DA     020848
CDBS$DAE    021700
CDBSDEND    02297E
INVALID CARD - UPDT0001 -- NON-'4001'X EXTERNAL INTERUPT HANDLING MODIFICATION.
INVALID CARD - *          CDBSVMCF UPDT0001 D1 6N9192 10/09/81  11:32
INVALID CARD - UPDT0002 -- CALL CDBSPOST AT POST TIME MODIFICATION.
INVALID CARD - *          CDBSVMCF UPDT0002 D1 6N9192 10/09/81  11:33
INVALID CARD - *          USLIB1    MACLIB   Z2 CMS29D 10/17/81  10:00
INVALID CARD - *          DMSSP     MACLIB   S2 VMSP90 04/21/81  00:30
INVALID CARD - *          CMSLIB    MACLIB   S2 VMSP90 04/21/81  01:23
INVALID CARD - *          OSMACRO   MACLIB   S2 VMSP90 12/09/78  05:02
INVALID CARD - *          CIAM      MACLIB   D1 6N9192 90/17/81  10:05
INVALID CARD - *          CDBSVMCF  ASSEMBLE D1 6N9192 89/20/81  15:27
IEAVMCF  SD 0229A0
VMCFINIT    0229A0
VMCFTERM    0229FA
IDMS     SD 0279A0
IDMSOPS     027ECC
```

Appendix J

CIAM CONSOLE LOGS

```
15:10:46 CDBS$I001I CDBS INITILIZATION IN PROCESS.
15:10:47 CDBS$I003I CDBS INITILIZATION COMPLETE.
15:10:48 CDBS$D010I ENTERING WAIT STATE.
15:11:01 CDBS$P004I CDBSPOST ENTERED FROM (,00) REQUESTING PORT FF (02143C).
15:11:04 CDBS$P023I PORT 00 ALLOCATED FOR (VM6N9,00) PORT_CB 00000000 FFFFFFFF 0000CBE0 PA_FLST 020854.
15:11:06 CDBS$D010I ENTERING WAIT STATE.
15:11:07 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:11:08 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 59 DML SEQUENCE 3.
15:11:10 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:11:12 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 48 DML SEQUENCE 4.
15:11:14 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:11:15 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 48 DML SEQUENCE 5.
15:11:17 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:11:19 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 41 DML SEQUENCE 6.
15:11:21 CDBS$D010I ENTERING WAIT STATE.
15:11:21 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:11:23 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 42 DML SEQUENCE 7.
15:11:25 CDBS$D010I ENTERING WAIT STATE.
15:11:26 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:11:27 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 2 DML SEQUENCE 8.
15:11:29 CDBS$R016I USER (VM6N9,00) RELEASING PORT 00 DUE TO FINISH DML EXECUTION.
15:11:31 CDBS$D010I ENTERING WAIT STATE.
```

DIRECTOR'S NAME ENTERED INTO DATABASE AS: DELOSS, DODDS
DIRECTOR'S DATABASE KEY RETURNED WAS: 2560257

```
15:05:31 CDBS$I001I CDBS INITILIZATION IN PROCESS.
15:05:32 CDBS$I003I CDBS INITILIZATION COMPLETE.
15:05:33 CDBS$D010I ENTERING WAIT STATE.
15:05:53 CDBS$P004I CDBSPOST ENTERED FROM (,00) REQUESTING PORT FF (02143C).
15:05:55 CDBS$P023I PORT 00 ALLOCATED FOR (VM6N9,00) PORT_CB 00000000 FFFFFFFF 0000CCB0 PA_FLST 020854.
15:05:57 CDBS$D010I ENTERING WAIT STATE.
15:05:58 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:05:59 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 59 DML SEQUENCE 3.
15:06:01 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:06:03 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 48 DML SEQUENCE 4.
15:06:05 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:06:06 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 48 DML SEQUENCE 5.
15:06:08 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:06:10 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0975, DML CODE 41 DML SEQUENCE 6.
15:06:12 CDBS$D010I ENTERING WAIT STATE.
15:06:13 CDBS$P004I CDBSPOST ENTERED FROM (VM6N9,00) REQUESTING PORT 00 (020848).
15:06:14 CDBS$D025I PORT 00 USER (ADDIR:VM6N9,00) IDMS STATUS 0000, DML CODE 67 DML SEQUENCE 1.
15:06:16 CDBS$R017I USER (VM6N9,00) RELEASING PORT 00 DUE TO ROLLBACK DML EXECUTION.
15:06:18 CDBS$D010I ENTERING WAIT STATE.
```

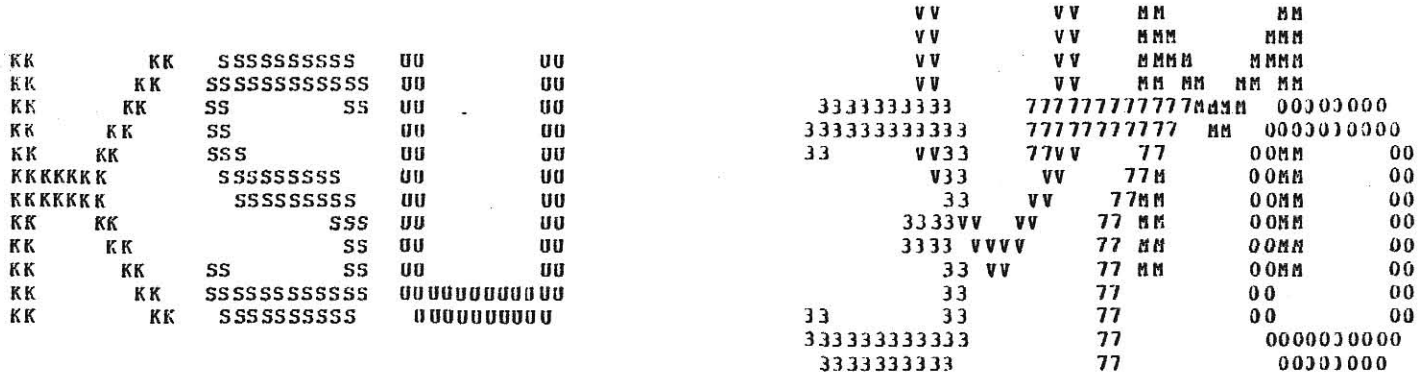
```
14:49:47 08A780 00000230
14:50:03 PROGRAM NAME -------- ADDIR
14:50:03 USER ID ------------- VM6N9
14:50:03 USER PORT ------------           0
14:50:03 DBMS ID ------------- VM6L8
14:50:03 DBMS PORT ------------           0
14:50:03 MESSAGE ID ----------           4
14:50:03 DBKEY ---------------                0
14:50:03 ERROR STATUS -------- 0975
14:50:03 ERROR RECORD --------
14:50:03 ERROR SET -----------
14:50:03 ERROR AREA ---------- MAIN
14:50:03 LAST GOOD RECORD ----
14:50:03 LAST GOOD AREA ------
14:50:03 DML SEQUENCE --------           6
14:50:06 CIAM$T212E IDMS RUN-UNIT HAS REQUESTED ABNORMAL TERMINATION.
14:50:06 CIAM$T212E ROLLBACK DML WAS EXECUTED AT DML SEQUENCE NUMBER 1.
14:50:06 CIAM$T212E FURTHER DML STATEMENTS WILL BE IGNORED.
14:50:07 FATAL CIAM ERROR, DUMP FOLLOWS.
14:50:07 CIAMUSER DATA AREA.
14:50:07 0204F0    45E0CA98  00000000  0008A780  00000000     *.................*
14:50:24 020500    00000000  00020F30  00021974  00021BE7     *................X*
14:50:24 020510    00000103  00040000  E5D4F6D3  F8404040     *........VM6L8    *
14:50:24 020520    0008A780  00000230  0008A780  00000230     *.................*
14:50:24 020530    00000043  00000000  80000000  00010000     *.................*
14:50:24 020540    E5D4F6D3  F8404040  000204FC  00000004     *VM6L8    ........*
14:50:24 020550    000203E8  00000000  C5E7E3C5  D9D5C1D3     *...Y....EXTERNAL*
14:50:24 020560    00000003  000200FF  E5D4F6D3  F8404040     *........VM6L8    *
14:50:24 020570    000205E0  00000008  000205E0  00000008     *.................*
14:50:24 020580    00000000  00000000  0000001F  00040000     *.................*
14:50:24 020590    E5D4F6D3  F8404040  000205B0  00000028     *VM6L8    ........*
14:50:24 0205A0    0008A780  00000230  00000043  00000000     *.................*
14:50:24 0205B0    80000003  00040000  E5D4F6D3  F8404040     *........VM6L8    *
14:50:24 0205C0    0008A780  00000000  0008A780  00000000     *.................*
14:50:24 0205D0    00000000  00000000  000205B0  00000028     *.................*
14:50:24 0205E0    00000230  00000000  00000043  0000003B     *.................*
14:50:24 0205F0    00000002  00000043  00FF9454  00000002     *.................*
14:50:24 020600    00000000  00000000  F1F061F2  F361F8F1     *........10/23/81*
14:50:24 020610    F1F47AF4  F97AF4F7  00000000  00B4218A     *14:49:47........*
14:50:24 020620    00000000  02A2AFD2  92C07795  FEBED000     *.......K........*
14:50:24 020630    92C077D1  FEBED000  000000E1  00000000     *...J............*
14:50:24 020640    000000E0  00000000  FFFFFFFF  FFFFFFFF     *.................*
14:50:24 020650    4510C6AA  10C0C152  C3C9C1D4  5BC9F2F0     *..F...A.CIAM$I20*
14:50:24 CIAM_CB.
14:50:25 08A780    00000230  0000003C  00000002  0000CDA0     *.................*
14:50:25 08A790    8000CE42  8000CD14  8000CE90  00000000     *.................*
14:50:25 08A7A0    00000000  00000000  00000000  00000000     *.................*
14:50:25 08A7B0    00000000  00000000  00000000  C3C1D3C5     *............CALE*
14:50:25 08A7C0    D5C4C1D9  C5E5C5D5  E3404040  40404040     *NDAREVENT        *
14:50:25 08A7D0    40404040  00000000  00000000  00000000     *    ............*
14:50:25 08A7E0    00000000  D4C1C9D5  40404040  40404040     *....MAIN         *
```

```
14:50:25 08A7F0    40404040  07FAE5D4  F6D5F940  404000E5     *    ..VM6N9   .V*
14:50:25 08A800    D4F6D3F8  40404000  00040000  F1F0E1F2 E6  *M6L8    .....10/2*
14:50:25 08A810    F361F8F1  F1F47AF4  F97AF4F7  00000000     *3/8114:49:47....*
14:50:25 08A820    00000000  00000000  00000000  00000000     *................*
14:50:25 08A830 TO 08A870   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:25 08A870    C1C4C4C9  D9404040  F0F0F0F0  FFFFFFFF     *ADDIR   0000....*
14:50:25 08A880    40404040  40404040  40404040  40404040     *                *
14:50:25 08A890 TO 08A8D0   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:25 08A8D0    00000000  00000000  00000000  00000000     *................*
14:50:25 08A8E0 TO 08A8F0   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:25 08A8F0    00000000  00000000  00029800  00000268     *................*
14:50:25 08A900    0000CE28  20000000  0000CD24  000279A0     *................*
14:50:25 08A910    00000001  0000CCBC  00020848  0000CCB0     *................*
14:50:25 08A920    00021506  00000000  00029808  E5C9C2C1     *............VIBA*
14:50:26 08A930    00000000  00000000  00000000  00000000     *................*
14:50:26 08A940    00000000  00000001  00000000  00000000     *................*
14:50:26 08A950    00000000  00000000  00000000  00000000     *................*
14:50:26 08A960 TO 08A9B0   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:26 08A9B0    0008C788  00001DB0  E2D540D9  F3F19202     *..G.....SN R31..*
14:50:26 PSW, XCR, GPR.
14:50:26 PSW = 00040000 8001FC60
14:50:26 ECR  0 =  000000E0  00000000  FFFFFFFF  FFFFFFFF
14:50:26 ECR  4 =  00000000  00000000  00000000  00000000
14:50:26 ECR  8 =  00000000  00000000  00000000  00000000
14:50:26 ECR 12 =  00000000  00000000  C4000000  00000200
14:50:26 GPR  0 =  00000009  0000323B  AE020DC4  00003160
14:50:26 GPR  4 =  00003243  00003243  00000009  FFFFFFF6
14:50:26 GPR  8 =  00014FD4  00002850  A001FC54  00003BA0
14:50:26 GPR 12 =  0001F5B0  000031B8  6001FC86  4001FC88
14:50:26 IEAVMCF CONTROL STORAGE, IEAVMCF AT 020F30.
14:50:26 021970    C6F20000  00000000  00000000  00000000     *F2..............*
14:50:26 021980    00000000  00000000  00000000  00000000     *................*
14:50:26 021990 TO 0219B0   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:26 0219B0    00000000  00000000  FFE40000  00000000     *.........U......*
14:50:26 0219C0    00000000  00021F30  00000000  00021F70     *................*
14:50:26 0219D0    00021F58  00000003  00000000  00000000     *................*
14:50:27 0219E0    00000006  00000000  00000010  00000000     *................*
14:50:27 0219F0    00040000  00021632  00040000  0002116A     *................*
14:50:27 021A00    FF001093  01580000  000008E1  00000002     *................*
14:50:27 021A10    00000005  00000002  00000005  00000032     *................*
14:50:27 021A20    80000003  00040000  E5D4F6D3  F8404040     *.........VM6L8   *
14:50:27 021A30    0008A780  00000000  0008A780  00000000     *................*
14:50:27 021A40    00000000  00000000  E5D461E2  D7404040     *.........VM/SP   *
14:50:27 021A50    01016703  02A00000  E5D4F6D5  F9404040     *.........VM6N9   *
14:50:27 021A60    E0000000  00000000  00000000  000202F4     *................4*
14:50:27 021A70    00000000  00000000  00000000  00000000     *................*
14:50:27 021A80 TO 021AB0   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:27 021AB0    00FFF800  00000000  00000000  00000000     *..8.............*
14:50:27 021AC0    00000000  00000000  00000000  00000000     *................*
14:50:27 021AD0 TO 021B00   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:27 021B00    00000100  000203E8  00000000  00000000     *.......Y........*
14:50:27 021B10    00000000  00000000  00000000  00000000     *................*
14:50:27 021B20 TO 021B50   SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:27 021B50    00000003  00040000  E5D4F6D3  F8404040     *.........VM6L8   *
14:50:27 021B60    0008A780  00000230  0008A780  00000230     *................*
14:50:27 021B70    00000043  00000000  40000000  00000000     *........ ........*
```

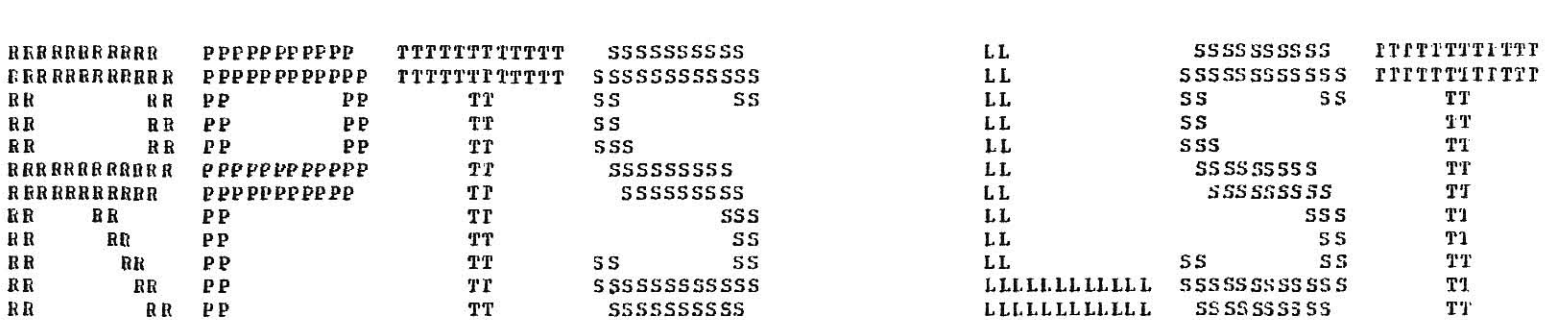
```
14:50:27 021B80    40404040  40404040  00021A20  00000028     *        ........*
14:50:27 021B90    00000000  00000000  00000000  00000000     *................*
14:50:28 021BA0    00000001  00000000  40404040  40404040     *........        *
14:50:28 021BB0    00000000  00000000  00000000  00000000     *................*
14:50:28 021BC0    00000000  00000000  C8C8E2F2  E2ACCCAC     *........HHS2S...*
14:50:28 021BD0    0000EA8C  00000000  00000000  00000000     *................*
14:50:28 021BE0    00000000  000000E8  FFE40000  00000000     *.......Y.U......*
14:50:28 SAVEAREA.
14:50:28 0202F0    D00C07FE  00000000  0002D398  00021A68     *...........L.....*
14:50:28 020300    7E0202C6  00020F8A  00000001  00020510     *=..F............*
14:50:28 020310    0008A780  00000000  000205B0  0008A8D0     *................*
14:50:28 020320    00000000  00000002  00000043  0008A780     *................*
14:50:28 020330    0008A912  0008A780  00020000  B206C648     *.............F.*
14:50:28 SAVE2.
14:50:28 020480    D01492FF  D00C07FE  00000000  00000000     *................*
14:50:28 020490    00000000  00000000  00000000  00000000     *................*
14:50:28 0204A0 TO 0204D0    SUPPRESSED LINE(S) SAME AS ABOVE .....
14:50:28 0204D0    B206C648  B600C638  94F7C63A  B700C638     *..F...F..7F...F.*
```

Appendix K

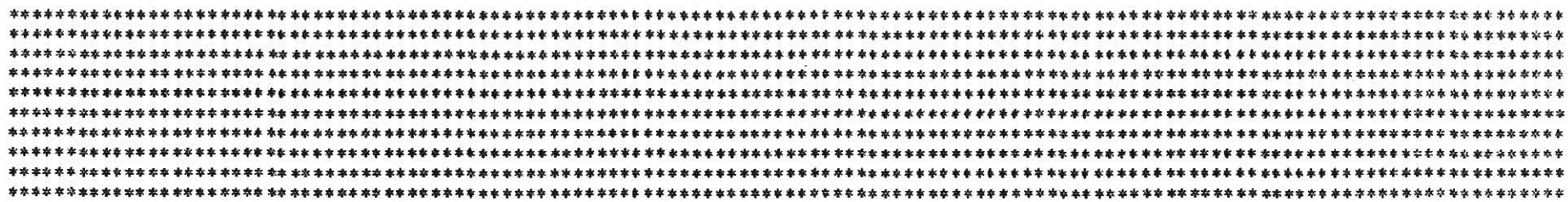
XYU IDMS DATA DICTIONARY REPORTS







```
SCHEMA=ALL
ALLRPT
```



SCHEMA	VERSION	SUBSCHEMA	REPORT
ALL	HIGHEST	ALL	ALLRPT

MODULE NAME .... CIAM_STATUS
DATE CREATED ... 06/27/81
LAST UPDATED ... 10/24/81
DML MODE .... NON MODE SPECIFIC
LANGUAGE .... PL/I

```
  % SKIP ( 2 );
IDMS_STATUS:  PROC;
  % SKIP ( 1 );
/*************************************************************/
/* THE IDMS_STATUS PROCEDURE IS CALLED BY THE USER AFTER     */
/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN    */
/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.   */
/* IT DETECTS A NON-ZERO ERROR_STATUS AND TERMINATES THE     */
/* PROGRAM ACCORDINGLY.                                      */
/*************************************************************/
  % SKIP ( 1 );
IF   CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS ¬= '0000' THEN
        DO;
           DISPLAY('PROGRAM NAME -------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.PROGRAM);
           DISPLAY('USER ID ------------- ' ||
             CIAM_CB.COMMUNCIATIONS_PATH.USER_ID);
           DISPLAY('USER PORT ----------- ' ||
             BINARY(CIAM_CB.COMMUNCIATIONS_PATH.USER_PORT,15));
           DISPLAY('DBMS ID ------------- ' ||
             CIAM_CB.COMMUNCIATIONS_PATH.DBMS_ID);
           DISPLAY('DBMS PORT ----------- ' ||
             BINARY(CIAM_CB.COMMUNCIATIONS_PATH.DBMS_PORT,15));
           DISPLAY('MESSAGE ID ---------- ' ||
             CIAM_CB.COMMUNCIATIONS_PATH.MESSAGE_ID);
           DISPLAY('DBKEY --------------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.DBKEY);
           DISPLAY('ERROR STATUS -------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS);
           DISPLAY('ERROR RECORD -------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.ERROR_RECORD);
           DISPLAY('ERROR SET ----------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.ERROR_SET);
           DISPLAY('ERROR AREA ---------- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.ERROR_AREA);
           DISPLAY('LAST GOOD RECORD ---- ' ||
             CIAM_CB.SUBSCHEMA_CTRL.RECORD_NAME);
           DISPLAY('LAST GOOD AREA ------ ' ||
             CIAM_CB.SUBSCHEMA_CTRL.AREA_NAME);
           DISPLAY('DML SEQUENCE -------- ' ||
             BINARY(CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE,15));
           ROLLBACK;
           STOP;
        END /*ERROR_STATUS ¬= 0 */;
END IDMS_STATUS;
  % SKIP ( 2 );
```

MODULE NAME .... IDMS_STATUS
DATE CREATED ... 05/03/81
LAST UPDATED ... 09/06/81
DML MODE ..... NON MODE SPECIFIC
LANGUAGE ..... PL/I

```
  % SKIP ( 2 );
IDMS_STATUS:  PROC;
  % SKIP ( 1 );
/*****************************************************************/
/* THE IDMS_STATUS PROCEDURE IS CALLED BY THE USER AFTER         */
/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN        */
/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.       */
/* IT DETECTS A NON-ZERO ERROR_STATUS AND ABNORMALLY             */
/* TERMINATES THE PROGRAM ACCORDINGLY.                           */
/*****************************************************************/
  % SKIP ( 1 );
IF   ERROR_STATUS ¬= '0000' THEN
        DO;
           DISPLAY(' ***** IDMS RUN UNIT ABORTING *****');
           DISPLAY('PROGRAM NAME -------- ' || PROGRAM);
           DISPLAY('DBKEY --------------- ' || DBKEY);
           DISPLAY('ERROR STATUS -------- ' || ERROR_STATUS);
           DISPLAY('ERROR RECORD -------- ' || ERROR_RECORD);
           DISPLAY('ERROR SET ----------- ' || ERROR_SET);
           DISPLAY('ERROR AREA ---------- ' || ERROR_AREA);
           DISPLAY('LAST GOOD RECORD ---- ' || RECORD_NAME);
           DISPLAY('LAST GOOD AREA ------ ' || AREA_NAME);
           DISPLAY('DML SEQUENCE -------- ' || DML_SEQUENCE);
           ROLLBACK;
           CALL ABORT;
        END /*ERROR_STATUS ¬= 0 */;
END IDMS_STATUS;
  % SKIP ( 2 );
```

*****

MODULE NAME .... CIAMERR_ONCOND
DATE CREATED ... 06/27/81
LAST UPDATED ... 10/24/81
DML MODE ..... NON MODE SPECIFIC
LANGUAGE ..... PL/I

```
  % SKIP ( 2 );
DCL IDMSERR CONDITION EXTERNAL;
ON CONDITION(IDMSERR) SNAP BEGIN;
  % SKIP ( 1 );
/*****************************************************************/
/* THE IDMSERR ON CONDITION IS SIGNALED BY THE USER AFTER        */
/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN        */
/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.       */
```

*****

```
/* IT DETECTS A NON-ZERO ERROR_STATUS AND TERMINATES THE     */
/* PROGRAM ACCORDINGLY.                                      */
/*************************************************************/
  % SKIP ( 1 );
IF   CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS ¬= '0000' THEN
       DO;
          DISPLAY('PROGRAM NAME -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.PROGRAM);
          DISPLAY('USER ID ------------- ' ||
            CIAM_CB.COMMUNCIATIONS_PATH.USER_ID);
          DISPLAY('USER PORT ----------- ' ||
            BINARY(CIAM_CB.COMMUNCIATIONS_PATH.USER_PORT,15));
          DISPLAY('DBMS ID ------------- ' ||
            CIAM_CB.COMMUNCIATIONS_PATH.DBMS_ID);
          DISPLAY('DBMS PORT ----------- ' ||
            BINARY(CIAM_CB.COMMUNCIATIONS_PATH.DBMS_PORT,15));
          DISPLAY('MESSAGE ID ---------- ' ||
            CIAM_CB.COMMUNCIATIONS_PATH.MESSAGE_ID);
          DISPLAY('DBKEY --------------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.DBKEY);
          DISPLAY('ERROR STATUS -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS);
          DISPLAY('ERROR RECORD -------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_RECORD);
          DISPLAY('ERROR SET ----------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_SET);
          DISPLAY('ERROR AREA ---------- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.ERROR_AREA);
          DISPLAY('LAST GOOD RECORD ---- ' ||
            CIAM_CB.SUBSCHEMA_CTRL.RECORD_NAME);
          DISPLAY('LAST GOOD AREA ------ ' ||
            CIAM_CB.SUBSCHEMA_CTRL.AREA_NAME);
          DISPLAY('DML SEQUENCE -------- ' ||
            BINARY(CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE,15));
          ROLLBACK;
          STOP;
        END /*ERROR_STATUS ¬= 0 */;
END /*IDMSERR ONCOND*/;
  % SKIP ( 2 );
```

*****

MODULE NAME .... IDMSERR_ONCOND
DATE CREATED ... 05/03/81
LAST UPDATED ... 09/06/81
DML MODE .... NON MODE SPECIFIC
LANGUAGE .... PL/I

```
  % SKIP ( 2 );
DCL IDMSERR CONDITION EXTERNAL;
ON CONDITION(IDMSERR) SNAP BEGIN;
```

```
  % SKIP ( 1 );
/*************************************************************/
/* THE IDMSERR ON CONDITION IS SIGNALED BY THE USER AFTER    */
/* EACH IDMS COMMAND HAS BEEN ISSUED AND CHECKS HAVE BEEN    */
/* MADE FOR ANY EXPECTED NON-ZERO ERROR_STATUS CONDITIONS.   */
/* IT DETECTS A NON-ZERO ERROR_STATUS AND ABNORMALLY         */
/* TERMINATES THE PROGRAM ACCORDINGLY.                       */
/*************************************************************/
  % SKIP ( 1 );
IF   ERROR_STATUS ¬= '0000' THEN
        DO;
           DISPLAY(' ***** IDMS RUN UNIT ABORTING ***** ');
           DISPLAY('PROGRAM NAME -------- ' || PROGRAM);
           DISPLAY('DBKEY --------------- ' || DBKEY);
           DISPLAY('ERROR STATUS -------- ' || ERROR_STATUS);
           DISPLAY('ERROR RECORD -------- ' || ERROR_RECORD);
           DISPLAY('ERROR SET ----------- ' || ERROR_SET);
           DISPLAY('ERROR AREA ---------- ' || ERROR_AREA);
           DISPLAY('LAST GOOD RECORD ---- ' || RECORD_NAME);
           DISPLAY('LAST GOOD AREA ------ ' || AREA_NAME);
           DISPLAY('DML SEQUENCE -------- ' || DML_SEQUENCE);
           ROLLBACK;
           CALL ABORT;
        END /*ERROR_STATUS ¬= 0 */;
END /*IDMSERR ONCOND*/;
  % SKIP ( 2 );
```

*****

MODULE NAME .... ERROR_CODES
DATE CREATED ... 05/03/81
LAST UPDATED ... 09/06/81
DML MODE .... NON MODE SPECIFIC
LANGUAGE .... PL/I

```
%DCL (IDMS_OK,IDMS_ENDSET,IDMS_NOREC,
    IDMS_TRUE,IDMS_FALSE,IDMS_CONNDUPL,
    IDMS_MODDUPL,IDMS_STORDUPL) CHAR;
  % SKIP ( 1 );
/*                    IDMS EQUATES                           */
  % SKIP ( 1 );
/*      IDMS_OK             C'0000'                          */
/*      IDMS_ENDSET         C'0307'                          */
/*      IDMS_NOREC          C'0326'                          */
/*      IDMS_TRUE           C'0000'                          */
/*      IDMS_FALSE          C'1601'                          */
/*      IDMS_CONNDUPL       C'0705'                          */
/*      IDMS_MODDUPL        C'0805'                          */
/*      IDMS_STORDUPL       C'1205'                          */
  % SKIP ( 2 );
%IDMS_OK='''0000''';
```

```
%IDMS_ENDSET='''0307''';
%IDMS_NOREC='''0326''';
%IDMS_TRUE='''0000''';
%IDMS_FALSE='''1601''';
%IDMS_CONNDUPL='''0705''';
%IDMS_MODDUPL='''0805''';
%IDMS_STORDUPL='''1205''';
```

*****

MODULE NAME .... IDMS_ENTRY
DATE CREATED ... 05/03/81
LAST UPDATED ... 10/24/81
DML MODE .... CIAM
LANGUAGE .... PL/I

```
DCL CIAMDML ENTRY OPTIONS (ASM,INTER);
```

*****

MODULE NAME .... CIAM_MAIN
DATE CREATED ... 06/27/81
LAST UPDATED ... 10/24/81
DML MODE .... CIAM
LANGUAGE .... PL/I

```
  % SKIP ( 2 );
DCL CIAMPTR POINTER EXTERNAL,
    1 CIAM_CB BASED(CIAMPTR),
        2 CIAM_CTRL,
           3 CB__LENGTH          FIXED BINARY(31)
                                 INITIAL(STORAGE(CIAM_CB)),
           3 DML_TIMEOUT         FIXED BINARY(31)
                                 INITIAL( 60 /*SECONDS*/ ),
        2 ARG_INFORMATION,
           3 #ARGS               FIXED BINARY(31),
           3 ARGS                (12) POINTER,
        2 ID,
           3 SUB_SCHEMA          CHARACTER(8),
           3 RECORD              CHARACTER(16),
           3 SET                 CHARACTER(16),
           3 AREA                CHARACTER(16),
        2  BR_10                 CHARACTER(2)
                                 INITIAL ('  '),
        2  COMMUNCIATIONS_PATH,
           3 USER_ID             CHARACTER(8),
           3 USER_PORT           BIT(8),
           3 DBMS_ID             CHARACTER(8)
                                 INITIAL ('VM6L8'),
```

```
            3 DBMS_PORT          BIT(8),
            3 MESSAGE_ID         FIXED BINARY(15),
         2  DB_STATISTICS,
            3 DATE_TODAY         CHARACTER(8),      /* MM/DD/YY */
            3 TIME_TODAY         CHARACTER(8),      /* HH:MM:SS */
            3 PAGES_READ         FIXED BINARY(31),
            3 PAGES_WRITTEN      FIXED BINARY(31),
            3 PAGES_REQUESTED    FIXED BINARY(31),
            3 CALC_TARGET        FIXED BINARY(31),
            3 CALC_OVERFLOW      FIXED BINARY(31),
            3 VIA_TARGET         FIXED BINARY(31),
            3 VIA_OVERFLOW       FIXED BINARY(31),
            3 LINES_REQUESTED    FIXED BINARY(31),
            3 RECS_CURRENT       FIXED BINARY(31),
            3 CALLS_TO_IDMS      FIXED BINARY(31),
            3 FRAGMENTS_STORED   FIXED BINARY(31),
            3 RECS_RELOCATED     FIXED BINARY(31),
            3 LOCKS_REQUESTED    FIXED BINARY(31),
            3 SEL_LOCKS_HELD     FIXED BINARY(31),
            3 UPD_LOCKS_HELD     FIXED BINARY(31),
            3 RUN_UNIT_ID        FIXED BINARY(31),
            3 TASK_ID            FIXED BINARY(31),
            3 LOCAL_ID           CHARACTER(8),
            3 REMOTE_ID          CHARACTER(8),
         2 INCLUDE IDMS (SUBSCHEMA_DESCRIPTION);
   % SKIP ( 2 );
ALLOCATE CIAM_CB;
   % SKIP ( 1 );
```

*****

MODULE NAME .... CIAM_CB
DATE CREATED ... 06/26/81
LAST UPDATED ... 10/24/81
DML MODE .... CIAM
LANGUAGE .... PL/I

```
   % SKIP ( 2 );
DCL CIAMPTR POINTER EXTERNAL,
    1 CIAM_CB BASED(CIAMPTR),
        2 CIAM_CTRL,
            3 CB__LENGTH         FIXED BINARY(31),
            3 DML_TIMEOUT        FIXED BINARY(31),
        2 ARG_INFORMATION,
            3 #ARGS              FIXED BINARY(31),
            3 ARGS               (12) POINTER,
        2 ID,
            3 SUB_SCHEMA         CHARACTER(8),
            3 RECORD             CHARACTER(16),
            3 SET                CHARACTER(16),
            3 AREA               CHARACTER(16),
```

*****

```
          2  BR_10                CHARACTER(2),
          2  COMMUNCIATIONS_PATH,
             3 USER_ID            CHARACTER(8),
             3 USER_PORT          BIT(8),
             3 DBMS_ID            CHARACTER(8),
             3 DBMS_PORT          BIT(8),
             3 MESSAGE_ID         FIXED BINARY(15),
          2  DB_STATISTICS,
             3 DATE_TODAY         CHARACTER(8),      /* MM/DD/YY */
             3 TIME_TODAY         CHARACTER(8),      /* HH:MM:SS */
             3 PAGES_READ         FIXED BINARY(31),
             3 PAGES_WRITTEN      FIXED BINARY(31),
             3 PAGES_REQUESTED    FIXED BINARY(31),
             3 CALC_TARGET        FIXED BINARY(31),
             3 CALC_OVERFLOW      FIXED BINARY(31),
             3 VIA_TARGET         FIXED BINARY(31),
             3 VIA_OVERFLOW       FIXED BINARY(31),
             3 LINES_REQUESTED    FIXED BINARY(31),
             3 RECS_CURRENT       FIXED BINARY(31),
             3 CALLS_TO_IDMS      FIXED BINARY(31),
             3 FRAGMENTS_STORED   FIXED BINARY(31),
             3 RECS_RELOCATED     FIXED BINARY(31),
             3 LOCKS_REQUESTED    FIXED BINARY(31),
             3 SEL_LOCKS_HELD     FIXED BINARY(31),
             3 UPD_LOCKS_HELD     FIXED BINARY(31),
             3 RUN_UNIT_ID        FIXED BINARY(31),
             3 TASK_ID            FIXED BINARY(31),
             3 LOCAL_ID           CHARACTER(8),
             3 REMOTE_ID          CHARACTER(8),
          2 INCLUDE IDMS (SUBSCHEMA_DESCRIPTION);
       % SKIP ( 2 );
```

***** *****

```
MODULE NAME .... IDMS_ENTRY
DATE CREATED ... 05/30/81
LAST UPDATED ... 09/06/81
DML MODE ....... BATCH
DML MODE ....... PLIOPT
LANGUAGE ....... PL/I

                    DCL ((IDMS,ABORT) OPTIONS (ASM,INTER)) ENTRY;
```

***** *****

```
RECORD NAME .... SUBSCHEMA_CTRL
DATE CREATED ... 05/03/81
LAST UPDATED ... 09/06/81
DML MODE ....... NON MODE SPECIFIC
```

LANGUAGE ..... PL/I

DATA ITEM.....	REDEFINES.....	USAGE.....	VALUE.....	PICTURE.....	STRT	LGTH
03 PROGRAM		DISPLAY	SPACES	X(8)	1	8
03 ERROR_STATUS		DISPLAY	'1400'	X(4)	9	4
03 DBKEY		COMP SYNC		S9(8)	13	4
03 RECORD_NAME		DISPLAY	SPACES	X(16)	17	16
03 AREA_NAME		DISPLAY	SPACES	X(16)	33	16
03 ERROR_SET		DISPLAY	SPACES	X(16)	49	16
03 ERROR_RECORD		DISPLAY	SPACES	X(16)	65	16
03 ERROR_AREA		DISPLAY	SPACES	X(16)	81	16
03 IDBMSCOM_AREA		DISPLAY			97	100
05 IDBMSCOM		DISPLAY	OCCURS 100	X	97	100
03 DIRECT_DBKEY		COMP SYNC		S9(8)	197	4
03 DATABASE_STATUS		DISPLAY			201	7
05 DBSTATMENT_CODE		DISPLAY		X(2)	201	2
05 DBSTATUS_CODE		DISPLAY		X(5)	203	5
03 FILLER		DISPLAY		X	208	1
03 RECORD_OCCUR		COMP SYNC		S9(8)	209	4
03 DML_SEQUENCE		COMP SYNC		S9(8)	213	4

***** *****

RECORD NAME .... DB_STATISTICS
DATE CREATED ... 05/03/81
LAST UPDATED ... 09/06/81
DML MODE ..... NON MODE SPECIFIC
LANGUAGE ..... PL/I

DATA ITEM.....	REDEFINES.....	USAGE.....	VALUE.....	PICTURE.....	STRT	LGTH
03 DATE_TODAY		DISPLAY	SPACES	X(8)	1	8
03 TIME_TODAY		DISPLAY	SPACES	X(8)	9	8
03 PAGES_READ		COMP	ZERO	S9(8)	17	4
03 PAGES_WRITTEN		COMP	ZERO	S9(8)	21	4
03 PAGES_REQUESTED		COMP	ZERO	S9(8)	25	4
03 CALC_TARGET		COMP	ZERO	S9(8)	29	4
03 CALC_OVERFLOW		COMP	ZERO	S9(8)	33	4

03 VIA_TARGET	COMP		S9(8)	37	4
		ZERO			
03 VIA_OVERFLOW	COMP		S9(8)	41	4
		ZERO			
03 LINES_REQUESTED	COMP		S9(8)	45	4
		ZERO			
03 RECS_CURRENT	COMP		S9(8)	49	4
		ZERO			
03 CALLS_TO_IDMS	COMP		S9(8)	53	4
		ZERO			
03 FRAGMENTS_STORED	COMP		S9(8)	57	4
		ZERO			
03 RECS_RELOCATED	COMP		S9(8)	61	4
		ZERO			
03 LOCKS_REQUESTED	COMP		S9(8)	65	4
		ZERO			
03 SEL_LOCKS_HELD	COMP		S9(8)	69	4
		ZERO			
03 UPD_LOCKS_HELD	COMP		S9(8)	73	4
		ZERO			
03 FILLER	DISPLAY		X(24)	77	24
		SPACES			

***** *****

RECORD NAME .... SSCTRL
DATE CREATED ... 06/22/81
LAST UPDATED ...
DML MODE ..... NON MODE SPECIFIC
LANGUAGE ..... ASSEMBLER

DATA ITEM.....	REDEFINES.....	USAGE.....	VALUE.....		PICTURE.....	STRT	LGTH
03 PGMNAME		DISPLAY			X(8)	1	8
			SPACES				
03 ERRSTAT		DISPLAY			X(4)	9	4
			'1400'				
03 DBKEY		COMP			S9(8)	13	4
03 RECNAME		DISPLAY			X(16)	17	16
			SPACES				
03 AREANAME		DISPLAY			X(16)	33	16
			SPACES				
03 ERRORSET		DISPLAY			X(16)	49	16
			SPACES				
03 ERRORREC		DISPLAY			X(16)	65	16
			SPACES				
03 ERRAREA		DISPLAY			X(16)	81	16
			SPACES				
03 SSCIDBCM		DISPLAY				97	100
05 IDBMSCOM		DISPLAY	OCCURS	100	X	97	100
03 DIRDBKEY		COMP			S9(8)	197	4
			ZERO				

03 DBSTATUS	DISPLAY			201	8
05 DBSTMTCD	DISPLAY		XX	201	2
05 DBSTATCD	DISPLAY		X(5)	203	5
05 FILLER	DISPLAY		X	208	1
03 RECOCCUR	COMP		S9(8)	209	4
		ZERO			
03 DMLSEQ	COMP		S9(8)	213	4
		ZERO			

-- MODULE/COPY DESCRIPTION LISTING -- END

PROTOCOL NAME .. BATCH
DATE CREATED ... 05/30/81
LAST UPDATED ... 09/06/81
LANGUAGE ..... PL/I

```
%SKIP(1);
                                                    DO;
SUBSCHEMA_CTRL.DML_SEQUENCE=&DMLSEQ;
SUBSCHEMA_CTRL.RECORD_OCCUR=&OCCUR;
CALL IDMS (SUBSCHEMA_CTRL,IDBMSCOM (&FUNC1)
                  ,&SSCTRL
                  ,'&SSNAME'
                  ,'&REC'
                  ,'&SET'
                  ,'&AREA'
                  ,&DATANAME
                  ,&RECBUF
                  ,&OCCUR2
                  ,IDBMSCOM (&FUNC2)
                  ,IDBMSCOM (&KEEP)
                                                    ); END;
IF SUBSCHEMA_CTRL.ERROR_STATUS='&STATUS'
```

*****

PROTOCOL NAME .. PLIOPT
DATE CREATED ... 05/30/81
LAST UPDATED ... 09/06/81
LANGUAGE ..... PL/I

```
%SKIP(1);
                                                    DO;
SUBSCHEMA_CTRL.DML_SEQUENCE=&DMLSEQ;
SUBSCHEMA_CTRL.RECORD_OCCUR=&OCCUR;
CALL IDMS (SUBSCHEMA_CTRL,IDBMSCOM (&FUNC1)
                  ,&SSCTRL
                  ,'&SSNAME'
                  ,'&REC'
                  ,'&SET'
                  ,'&AREA'
                  ,&DATANAME
                  ,&RECBUF
                  ,&OCCUR2
                  ,IDBMSCOM (&FUNC2)
                  ,IDBMSCOM (&KEEP)
                                                    ); END;
IF SUBSCHEMA_CTRL.ERROR_STATUS='&STATUS'
```

*****

PROTOCOL NAME .. CIAM
DATE CREATED ... 05/03/81
LAST UPDATED ... 10/24/81
LANGUAGE ..... PL/I

```
DO;
  CIAM_CB.SUBSCHEMA_CTRL.DML_SEQUENCE=@DMLSEQ;
  CIAM_CB.SUBSCHEMA_CTRL.RECORD_OCCUR=@OCCUR;
  CIAM_CB.ID.SUB_SCHEMA= '@SSNAME';
  CIAM_CB.ID.RECORD= '@REC';
  CIAM_CB.ID.SET   = '@SET';
  CIAM_CB.ID.AREA  = '@AREA';
  CALL CIAMDML (CIAM_CB,IDBMSCOM(@FUNC1)
     ,@SSCTRL
     ,CIAM_CB.ID.SUB_SCHEMA /*@SSNAME*/
     ,CIAM_CB.ID.RECORD /*@REC*/
     ,CIAM_CB.ID.SET    /*@SET*/
     ,CIAM_CB.ID.AREA   /*@AREA*/
     ,@DATANAME
     ,@RECBUF
     ,@OCCUR2
     ,IDBMSCOM(@FUNC2)
     ,IDBMSCOM(@KEEP)
  ); END;
            %SKIP(1);
   IF CIAM_CB.SUBSCHEMA_CTRL.ERROR_STATUS='@STATUS'
```

USER NAME ..... CULL DBA

PASSWORD ASSIGNED
QFILE IS NOT ALLOWED
MULTIPLE RECORD RETRIEVAL (MRR) NOT ALLOWED
OPTIONAL INTERRUPT
DEFAULT OPTIONS
    ALL
    HEADER
    ECHO
    NO FILLER
    FULL
    WHOLE
    INTERRUPT

*****

---------- USER LISTING ---------- END

	NAME	LOW PAGE NUMBER	HIGH PAGE NUMBER
AREA.....	MAIN	10000	10999
RECORD...	DIRECTOR	10000	10999
RECORD...	EVENT	10000	10999
RECORD...	DEPARTMENT	10000	10999
RECORD...	EXPENSE-CATEGORY	10000	10999
RECORD...	EXPENSE-ITEM	10000	10999
RECORD...	EMPLOYEE	10000	10999

---------- RANGE MAP LISTING ---------- END

	NAME	EXTERNAL NAME	LOW REL BLOCK NO	HIGH REL BLOCK NO	LOW PAGE NUMBER	HIGH PAGE NUMBER	DEVICE TYPE
FILE.....	DATABASE	DATABASE	1	1000	10000	10999	
AREA...	MAIN		1	1000	10000	10999	

----- DEVICE MEDIA CONTROL LISTING ----- END

SUBSCHEMA..... CALENDAR ANY PROGRAM OPTION IS ON

SUBSCHEMA..... FINANCE ANY PROGRAM OPTION IS ON

--- PROGRAM CROSS-REFERENCE LISTING --- END

```
RECORD NAME..... DIRECTOR                                                    RLGTH=   36
RECORD ID....... 0611                                                        KLGTH=   12
RECORD LENGTH..... FIXED
LOCATION MODE..... DIRECT                                                    DLGTH=   24
WITHIN.............. MAIN                FROM PAGE    10000    THRU    10999 DSPRT=   12
DBKEY POSITIONS.... SET.............. TYPE.. NEXT  PRIOR OWNER
                    MASTER-EVENT      OWNER     1
                    MASTER-DEPT       OWNER     2     3
DATA ITEM.......... REDEFINES....... USAGE....... VALUE.............................. PICTURE.......................... STRT  LGTH
03 DIRECTORS-NAME                     DISPLAY                                       X(24)                             1    24

*****                                                                                                                 *****

RECORD NAME..... EVENT                                                       RLGTH=   84
RECORD ID....... 0612                                                        KLGTH=    4
RECORD LENGTH..... FIXED
LOCATION MODE..... VIA SET            MASTER-EVENT                DISPLACEMENT     0000 PAGES                       DLGTH=   80
WITHIN.............. MAIN                FROM PAGE    10000    THRU    10999 DSPRT=    4
DBKEY POSITIONS.... SET.............. TYPE.. NEXT  PRIOR OWNER
                    MASTER-EVENT      MEMBER    1
DATA ITEM.......... REDEFINES....... USAGE....... VALUE.............................. PICTURE.......................... STRT  LGTH
03 EVENT-NAME                         DISPLAY                                       X(26)                             1    26
03 EVENT-DATE                         DISPLAY                                       999999                           27     6
                                                   SET CONTROL ITEM FOR --------     MASTER-EVENT    DUP LAST
03 EVENT-LOCATION                     DISPLAY                                                                         33    48
05 FACILITY-NAME                      DISPLAY                                       X(24)                             33    24
05 FACILITY-TOWN                      DISPLAY                                       X(24)                             57    24

*****                                                                                                                 *****

RECORD NAME..... DEPARTMENT                                                  RLGTH=   43
RECORD ID....... 0613                                                        KLGTH=   24
RECORD LENGTH..... FIXED
LOCATION MODE..... CALC USING         DEPT-NAME                                                                      DLGTH=   24
WITHIN.............. MAIN                FROM PAGE    10000    THRU    10999 DSPRT=   24
DBKEY POSITIONS.... SET.............. TYPE.. NEXT  PRIOR OWNER
                    CALC              MEMBER    1     2
                    MASTER-DEPT       MEMBER    3     4
                    DEPT-CATEGORY     OWNER     5     6
DATA ITEM.......... REDEFINES....... USAGE....... VALUE.............................. PICTURE.......................... STRT  LGTH
03 DEPT-NAME                          DISPLAY                                       X(24)                             1    24
                                                   SET CONTROL ITEM FOR --------     CALC            DUP NOT ALLOWED
```

```
RECORD NAME..... EXPENSE-CATEGORY                                                    RLGTH=   48
RECORD ID....... 0614                                                                KLGTH=   16
RECORD LENGTH..... FIXED
LOCATION MODE..... VIA SET          DEPT-CATEGORY          DISPLACEMENT    0000 PAGES    DLGTH=   32
WITHIN.......... MAIN                        FROM PAGE    10000    THRU    10999        DSTRT=   16
DBKEY POSITIONS.... SET.......... TYPE.. NEXT  PRIOR OWNER
                    DEPT-CATEGORY  MEMBER   1     2
                    EXPENSE        OWNER    3     4
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....          STRT  LGTH
03 TOTAL-PAID                COMP                   S9(8)                   1     4
03 TOTAL-ENCUMBERED          COMP                   S9(8)                   5     4
03 CATEGORY-NAME             DISPLAY                X(24)                   9    24
                             SET CONTROL ITEM FOR --------  DEPT-CATEGORY  DUP NOT ALLOWED

*****                                                                                *****

RECORD NAME..... EXPENSE-ITEM                                                        RLGTH=   44
RECORD ID....... 0615                                                                KLGTH=   12
RECORD LENGTH..... FIXED
LOCATION MODE..... VIA SET          EXPENSE                DISPLACEMENT    0000 PAGES    DLGTH=   32
WITHIN.......... MAIN                        FROM PAGE    10000    THRU    10999        DSTRT=   12
DBKEY POSITIONS.... SET.......... TYPE.. NEXT  PRIOR OWNER
                    EXPENSE        MEMBER   1     2
                    PAY-HISTORY    MEMBER   3
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....          STRT  LGTH
03 EXPNS-ITEM                DISPLAY                X(22)                   1    22
03 DATE-OF-EXPNS             DISPLAY                999999                 23     6
03 AMT-OF-EXPNS              COMP                   S9(8)                  29     4

*****                                                                                *****

RECORD NAME..... EMPLOYEE                                                            RLGTH=   36
RECORD ID....... 0616                                                                KLGTH=   12
RECORD LENGTH..... FIXED
LOCATION MODE..... CALC USING       EMPLOYEE-ID                                      DLGTH=   24
WITHIN.......... MAIN                        FROM PAGE    10000    THRU    10999        DSTRT=   12
DBKEY POSITIONS.... SET.......... TYPE.. NEXT  PRIOR OWNER
                    CALC           MEMBER   1     2
                    PAY-HISTORY    OWNER    3
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....          STRT  LGTH
03 EMPLOYEE-ID               DISPLAY                X(24)                   1    24
                             SET CONTROL ITEM FOR --------  CALC          DUP NOT ALLOWED

                        -- SCHEMA RECORD DESCRIPTION LISTING --- END
```

```
SET..... CALC                    MODE IS CHAIN          ORDER IS SORTED
OWNER.... SR1             0001   LINKED NEXT PRIOR
MEMBER... DEPARTMENT      0613   LINKED NEXT PRIOR      MANDATORY AUTOMATIC ASC DEPT-NAME          DUP NOT ALLOWED
MEMBER... EMPLOYEE        0616   LINKED NEXT PRIOR      MANDATORY AUTOMATIC ASC EMPLOYEE-ID        DUP NOT ALLOWED

SET..... MASTER-EVENT            MODE IS CHAIN          ORDER IS SORTED
OWNER.... DIRECTOR        0611   LINKED NEXT
MEMBER... EVENT           0612   LINKED NEXT            MANDATORY AUTOMATIC ASC EVENT-DATE         DUP LAST

SET..... MASTER-DEPT             MODE IS CHAIN          ORDER IS PRIOR
OWNER.... DIRECTOR        0611   LINKED NEXT PRIOR
MEMBER... DEPARTMENT      0613   LINKED NEXT PRIOR      MANDATORY MANUAL

SET..... DEPT-CATEGORY           MODE IS CHAIN          ORDER IS SORTED
OWNER.... DEPARTMENT      0613   LINKED NEXT PRIOR
MEMBER... EXPENSE-CATEGORY 0614  LINKED NEXT PRIOR      MANDATORY AUTOMATIC ASC CATEGORY-NAME      DUP NOT ALLOWED

SET..... EXPENSE                 MODE IS CHAIN          ORDER IS LAST
OWNER.... EXPENSE-CATEGORY 0614  LINKED NEXT PRIOR
MEMBER... EXPENSE-ITEM    0615   LINKED NEXT PRIOR      OPTIONAL  AUTOMATIC

SET..... PAY-HISTORY             MODE IS CHAIN          ORDER IS NEXT
OWNER.... EMPLOYEE        0616   LINKED NEXT
MEMBER... EXPENSE-ITEM    0615   LINKED NEXT            OPTIONAL  MANUAL
```

-------- SET DESCRIPTION LISTING ------- END

```
RECORD NAME..... DIRECTOR
RECORD ID..... 0611
RECORD LENGTH..... FIXED
LOCATION MODE..... DIRECT
WITHIN..... MAIN                    FROM PAGE    10000    THRU    10999
PRIVACY LOCK IS 'YES' FOR..... FIND      GET       CONNECT    MODIFY     DISCONNECT STORE
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....    STRT  LGTH
03 DIRECTORS-NAME             DISPLAY               X(24)             1    24

*****                                                                 *****

RECORD NAME..... EVENT
RECORD ID..... 0612
RECORD LENGTH..... FIXED
LOCATION MODE..... VIA SET          MASTER-EVENT          DISPLACEMENT     0000 PAGES
WITHIN..... MAIN                    FROM PAGE    10000    THRU    10999
PRIVACY LOCK IS 'YES' FOR..... ERASE     FIND      GET       CONNECT    MODIFY     DISCONNECT STORE
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....    STRT  LGTH
03 EVENT-NAME                 DISPLAY               X(26)             1    26
03 EVENT-DATE                 DISPLAY               999999            27    6
                                  SET CONTROL ITEM FOR --------      MASTER-EVENT    DUP LAST
03 EVENT-LOCATION             DISPLAY                                 33    48
05 FACILITY-NAME              DISPLAY               X(24)             33    24
05 FACILITY-TOWN              DISPLAY               X(24)             57    24
```

- SUBSCHEMA RECORD DESCRIPTION LISTING - END

```
SET..... MASTER-EVENT          MODE IS CHAIN            ORDER IS SORTED
PRIVACY LOCK IS 'YES' FOR..... DISCONNECT CONNECT    FIND
OWNER.... DIRECTOR        0611 LINKED NEXT
MEMBER... EVENT           0612 LINKED NEXT            MANDATORY AUTOMATIC ASC EVENT-DATE          DUP LAST
```

-- SUBSCHEMA SET DESCRIPTION LISTING -- END

RECORD: DIRECTOR RECORD ID: 0611 TYPE: I LENGTH: 24

NAME	LEVEL	SYNC	LENGTH	TYPE	PICTURE
DIRECTORS-NAME	03	1	24	A/N	X(24)

RECORD: EVENT RECORD ID: 0612 TYPE: I LENGTH: 80

NAME	LEVEL	STRT	LENGTH	TYPE	PICTURE
EVENT-NAME	03	1	26	A/N	X(26)
EVENT-DATE	03	27	6	DISPLAY	999999
EVENT-LOCATION	03	33	48	GROUP	
FACILITY-NAME	05	33	24	A/N	X(24)
FACILITY-TOWN	05	57	24	A/N	X(24)

-- SUBSCHEMA DATA DIRECTORY LISTING -- END

```
RECORD NAME..... DIRECTOR
RECORD ID..... 0611
RECORD LENGTH..... FIXED
LOCATION MODE..... DIRECT
WITHIN..... MAIN                    FROM PAGE    10000    THRU    10999
PRIVACY LOCK IS 'YES' FOR..... FIND      GET       CONNECT    MODIFY     DISCONNECT STORE
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....  STRT  LGTH
03 DIRECTORS-NAME             DISPLAY               X(24)          1    24

*****                                                                *****

RECORD NAME..... DEPARTMENT
RECORD ID..... 0613
RECORD LENGTH..... FIXED
LOCATION MODE..... CALC USING       DEPT-NAME
WITHIN..... MAIN                    FROM PAGE    10000    THRU    10999
PRIVACY LOCK IS 'YES' FOR..... ERASE     FIND      GET       CONNECT    MODIFY     DISCONNECT STORE
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....  STRT  LGTH
03 DEPT-NAME                  DISPLAY               X(24)          1    24
                              SET CONTROL ITEM FOR --------       CALC          DUP NOT ALLOWED

*****                                                                *****

RECORD NAME..... EXPENSE-CATEGORY
RECORD ID..... 0614
RECORD LENGTH..... FIXED
LOCATION MODE..... VIA SET          DEPT-CATEGORY          DISPLACEMENT     0000 PAGES
WITHIN..... MAIN                    FROM PAGE    10000    THRU    10999
PRIVACY LOCK IS 'YES' FOR..... ERASE     FIND      GET       CONNECT    MODIFY     DISCONNECT STORE
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....  STRT  LGTH
03 TOTAL-PAID                 COMP                  S9(8)          1     4
03 TOTAL-ENCUMBERED           COMP                  S9(8)          5     4
03 CATEGORY-NAME              DISPLAY               X(24)          9    24
                              SET CONTROL ITEM FOR --------       DEPT-CATEGORY  DUP NOT ALLOWED

*****                                                                *****

RECORD NAME..... EXPENSE-ITEM
RECORD ID..... 0615
RECORD LENGTH..... FIXED
LOCATION MODE..... VIA SET          EXPENSE                DISPLACEMENT     0000 PAGES
WITHIN..... MAIN                    FROM PAGE    10000    THRU    10999
PRIVACY LOCK IS 'YES' FOR..... ERASE     FIND      GET       CONNECT    MODIFY     DISCONNECT STORE
DATA ITEM..... REDEFINES..... USAGE..... VALUE..... PICTURE.....  STRT  LGTH
03 EXPNS-ITEM                 DISPLAY               X(22)          1    22
03 DATE-OF-EXPNS              DISPLAY               999999        23     6
```

03 AMT-OF-EXPNS COMP S9(8) 29 4

*****

RECORD NAME..... EMPLOYEE
RECORD ID..... 0616
RECORD LENGTH..... FIXED
LOCATION MODE..... CALC USING EMPLOYEE-ID
WITHIN..... MAIN FROM PAGE 10000 THRU 10999
PRIVACY LOCK IS 'YES' FOR..... ERASE FIND GET CONNECT MODIFY DISCONNECT STORE

DATA ITEM.....	REDEFINES.....	USAGE.....	VALUE.....	PICTURE.....			STRT	LGTH
03 EMPLOYEE-ID		DISPLAY		X(24)			1	24
			SET CONTROL ITEM FOR --------	CALC	DUP NOT ALLOWED			

- SUBSCHEMA RECORD DESCRIPTION LISTING - END

```
SET..... MASTER-DEPT            MODE IS CHAIN            ORDER IS PRIOR
PRIVACY LOCK IS 'YES' FOR..... DISCONNECT CONNECT    FIND
OWNER.... DIRECTOR         0611 LINKED NEXT PRIOR
MEMBER... DEPARTMENT       0613 LINKED NEXT PRIOR       MANDATORY MANUAL

SET..... DEPT-CATEGORY          MODE IS CHAIN            ORDER IS SORTED
PRIVACY LOCK IS 'YES' FOR..... DISCONNECT CONNECT    FIND
OWNER.... DEPARTMENT       0613 LINKED NEXT PRIOR
MEMBER... EXPENSE-CATEGORY 0614 LINKED NEXT PRIOR       MANDATORY AUTOMATIC ASC CATEGORY-NAME          DUP NOT ALLOWED

SET..... EXPENSE                MODE IS CHAIN            ORDER IS LAST
PRIVACY LOCK IS 'YES' FOR..... DISCONNECT CONNECT    FIND
OWNER.... EXPENSE-CATEGORY 0614 LINKED NEXT PRIOR
MEMBER... EXPENSE-ITEM     0615 LINKED NEXT PRIOR       OPTIONAL  AUTOMATIC

SET..... PAY-HISTORY            MODE IS CHAIN            ORDER IS NEXT
PRIVACY LOCK IS 'YES' FOR..... DISCONNECT CONNECT    FIND
OWNER.... EMPLOYEE         0616 LINKED NEXT
MEMBER... EXPENSE-ITEM     0615 LINKED NEXT             OPTIONAL  MANUAL
```

-- SUBSCHEMA SET DESCRIPTION LISTING -- END

```
IDMSRPTS 5.51 -- SUBSCHEMA DATA DIRECTORY LISTING --      DATE      TIME    PAGE
DATDIR       FOR SUBSCHEMA FINANCE  IN XYUSCHEM      1  10/25/81  205518      1

RECORD: DIRECTOR          RECORD ID: 0611  TYPE: I LENGTH:    24

                NAME                LEVEL START LENGTH  TYPE     PICTURE

  DIRECTORS-NAME                      03     1     24   A/N      X(24)
```

RECORD: DEPARTMENT RECORD ID: 0613 TYPE: I LENGTH: 24

NAME	LEVEL	SIRT	LENGTH	TYPE	PICTURE
DEPT-NAME	03	1	24	A/N	X(24)

RECORD: EXPENSE-CATEGORY RECORD ID: 0614 TYPE: I LENGTH: 32

NAME	LEVEL	STRT	LENGTH	TYPE	PICTURE
TOTAL-PAID	03	1	4	BINARY	S9(8)
TOTAL-ENCUMBERED	03	5	4	BINARY	S9(8)
CATEGORY-NAME	03	9	24	A/N	X(24)

RECORD: EXPENSE-ITEM RECORD ID: 0615 TYPE: I LENGTH: 32

NAME	LEVEL	STRT	LENGTH	TYPE	PICTURE
EXPNS-ITEM	03	1	22	A/N	X(22)
DATE-OF-EXPNS	03	23	6	DISPLAY	999999
AMT-OF-EXPNS	03	29	4	BINARY	S9(8)

```
IDMSRPTS 5.51 -- SUBSCHEMA DATA DIRECTORY LISTING --      DATE     TIME   PAGE
DATDIR        FOR SUBSCHEMA FINANCE  IN XYUSCHEM     1  10/25/81  205518     5

RECORD: EMPLOYEE          RECORD ID: 0616  TYPE: I LENGTH:   24

               NAME                LEVEL STRT LENGTH  TYPE     PICTURE

  EMPLOYEE-ID                       03     1    24    A/N      X(24)

           -- SUBSCHEMA DATA DIRECTORY LISTING --   END
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END OF INPUT PARAMETERS

CIAM
A CONCURRENT IDMS ACCESS METHOD FOR VM/370

by

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B.S., Kansas State University, 1978

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Computer Science

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1982

This paper describes the Concurrent IDMS Access Method (CIAM). CIAM allows like database applications to share a backend database machine running under IBM's VM/370. IEAVMCF, the communication protocol used by CIAM, allows a maximum of 255 user's per backend machine. The send/receive subfunction of IEAVMCF was used to transfer the message buffers between the application machines and the backend machine. Cullinane's Integrated Database Management System (IDMS) was used for the database support in the backend machine.

CIAM was developed out of a need to allow multiple copies of IDMS to be running seperately; used by like applications, seperated for unlike applications. The security of the VM/370 operating system serves to prevent access to the database by un-authorized users.

CIAMUSER, the user interface, and CIAMDBMS, the database interface were implemented entirely for CIAM. The communication protocol, IEAVMCF, was modified for use by CIAM. Special pre-processor protocols to support CIAM access were implemented and added to the IDMS data dictionary.

The paper describes the general problem, the solution, and the CIAM software; both in high-level and at a low-level. Complete listing of the software used for CIAM are included in the Appendix section, along with a sample application program using the CIAM access method.