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This edition applies to release 1.6 of OS/VS2 and to all subsequent releases until otherwise indicated in new editions or Technical Newsletters. Changes are continually made to the information herein; before using this publication in connection with the operation of IBM systems, consult the IBM System/360 and System/370 Bibliography, GA22-6822, and the current SRL Newsletter.

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Guide to Section Tabs in Volume 2

SECTION 10: Program Organization **10**

SECTION 11: Directory **11**

SECTION 12: Data Areas **12**

SECTION 13: Diagnostic Aids **13**

Index to Volumes 1 and 2 . . . . . **Index**

In Volume 1:

SECTION 1: Introduction to the Supervisor, and Virtual Storage Concepts
SECTION 2: Interruption Supervision
SECTION 3: Task Supervision
SECTION 4: Contents Supervision
SECTION 5: Paging Supervision
SECTION 6: Virtual Storage Supervision
SECTION 7: Timer Supervision
SECTION 8: Termination
SECTION 9: Glossary
Index to Volumes 1 and 2

SECTION 10: PROGRAM ORGANIZATION 701

PROGRAM ORGANIZATION DIAGRAMS 703

SYNOPSES OF ROUTINES 710

SECTION 11: DIRECTORY 717

MODULE DIRECTORY 719

DIRECTORY OF ENTRY-POINT NAMES 729

SVC DIRECTORY 734

SECTION 12: DATA AREAS 735

SECTION 13: DIAGNOSTIC AIDS 893

REGISTERS ON ENTRY AND EXIT 895
Standard Linkage Registers 895
CONTROL BLOCKS CROSS-REFERENCE TABLE. 946

CONTROL BLOCKS REFERENCED/SET MATRIX 950.1

MESSAGES AND CODES ISSUED BY VS2 SUPERVISOR 953
Completion Codes Issued by VS2 Supervisor 953
Wait State Codes Issued by VS2 Supervisor 954
Messages Issued by VS2 Supervisor 954

INDEX 957

ILLUSTRATIONS

Figure 10-1. Program organization for interruption supervision and the Trace Routine. 703
Figure 10-2. Program organization for task supervision.. 704
Figure 10-3. Program organization for contents supervision. 705
Figure 10-4. Program organization for real storage administration. .705
Figure 10-5. Program organization for page administration. 706
Figure 10-6. Program organization for interface control. 706
Figure 10-7. Program organization for auxiliary storage management..706
Figure 10-8. Program organization for virtual storage supervision. .707
Figure 10-9. Program organization for timer supervision. 708
Figure 10-10. Program organization for termination. 709

SECTION 10

Program Organization

10

PROGRAM ORGANIZATION DIAGRAMS..... 703

SYNOPSES OF ROUTINES..... 710

The following figures show the physical packaging of the supervisor components into modules, routines, and subroutines. The figures show the symbolic names, descriptive names, and entry points. In the figures, a box contained within a larger box indicates that the routine or subroutine is contained within the module.

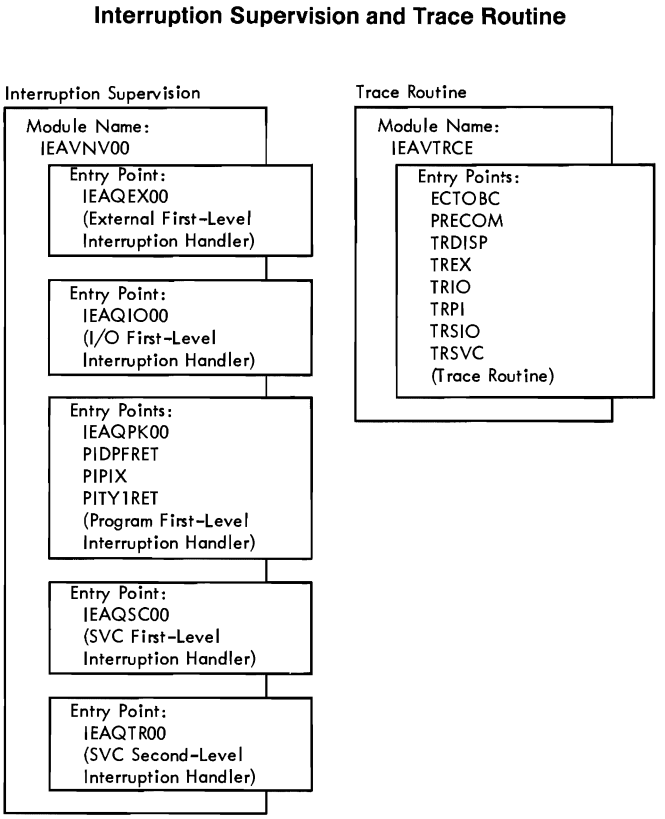


Figure 10-1. Program organization for interruption supervision and the Trace Routine.

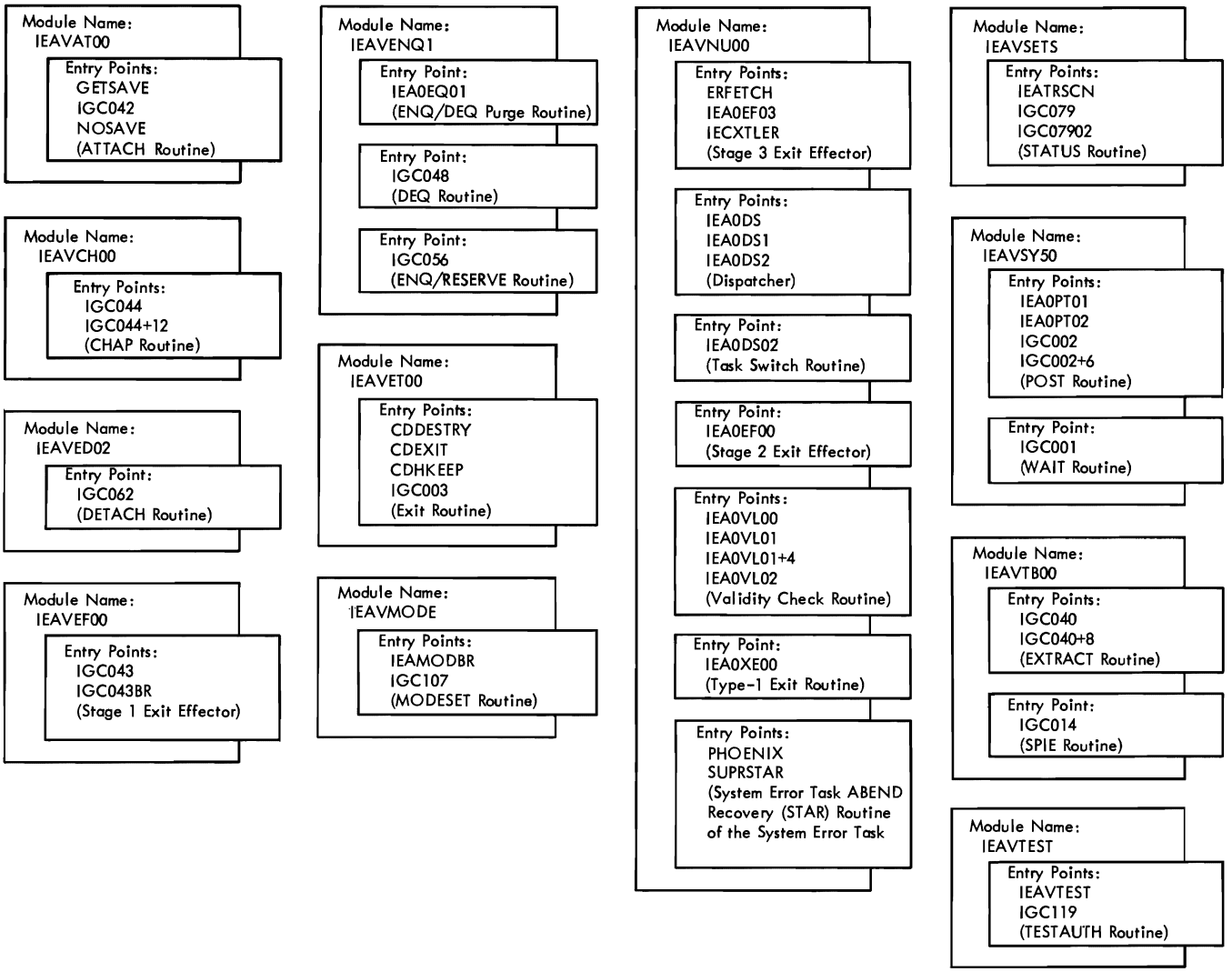


Figure 10-2. Program organization for task supervision.

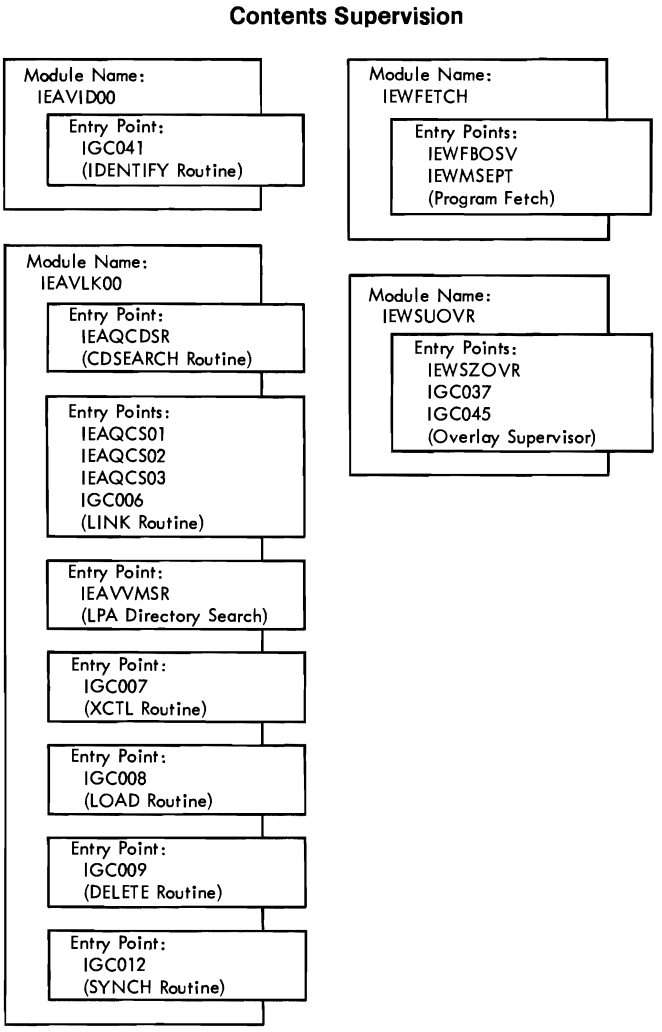


Figure 10-3. Program organization for contents supervision.

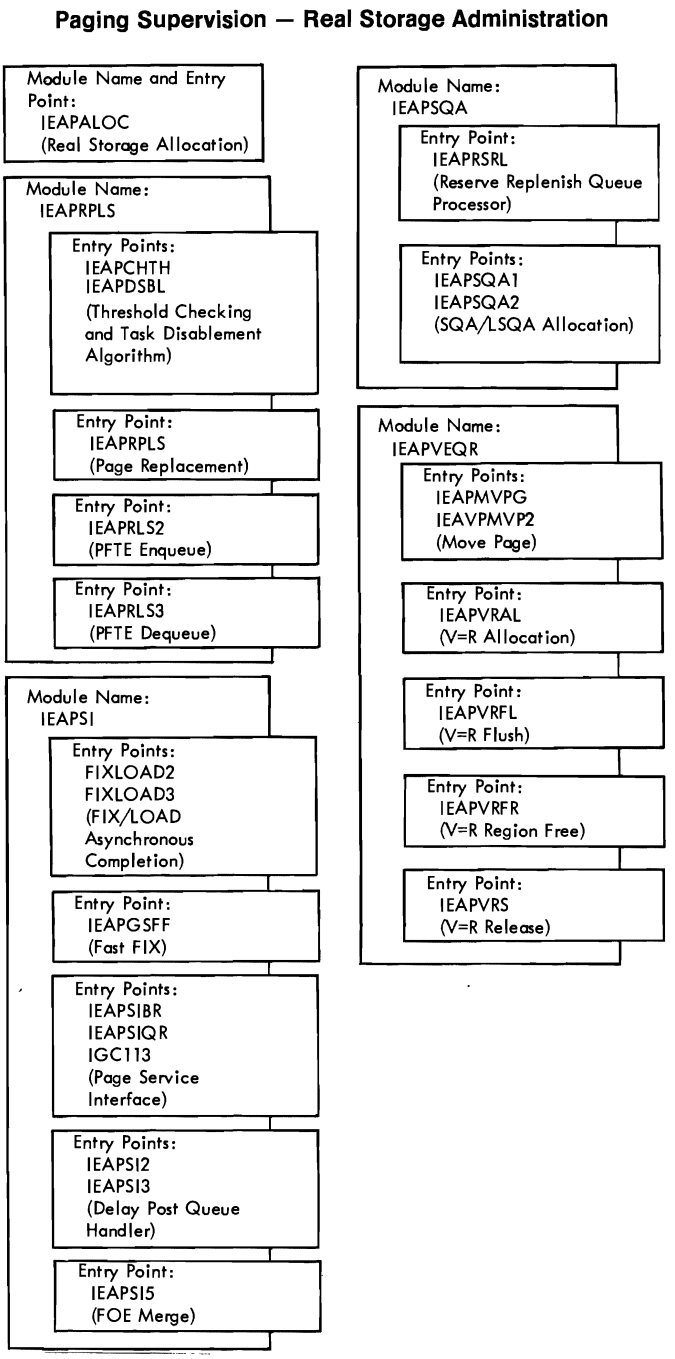


Figure 10-4. Program organization for real storage administration.

Paging Supervision — Page Administration

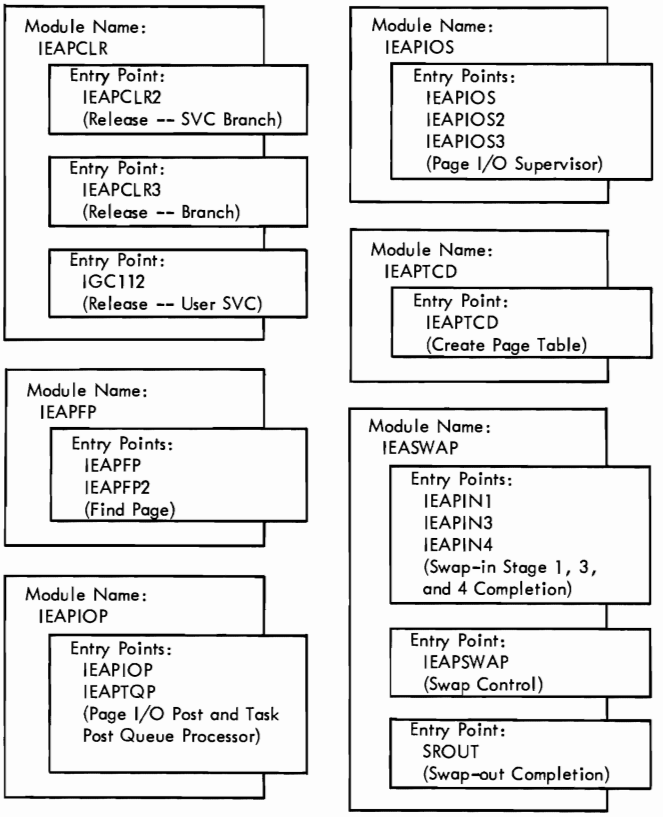
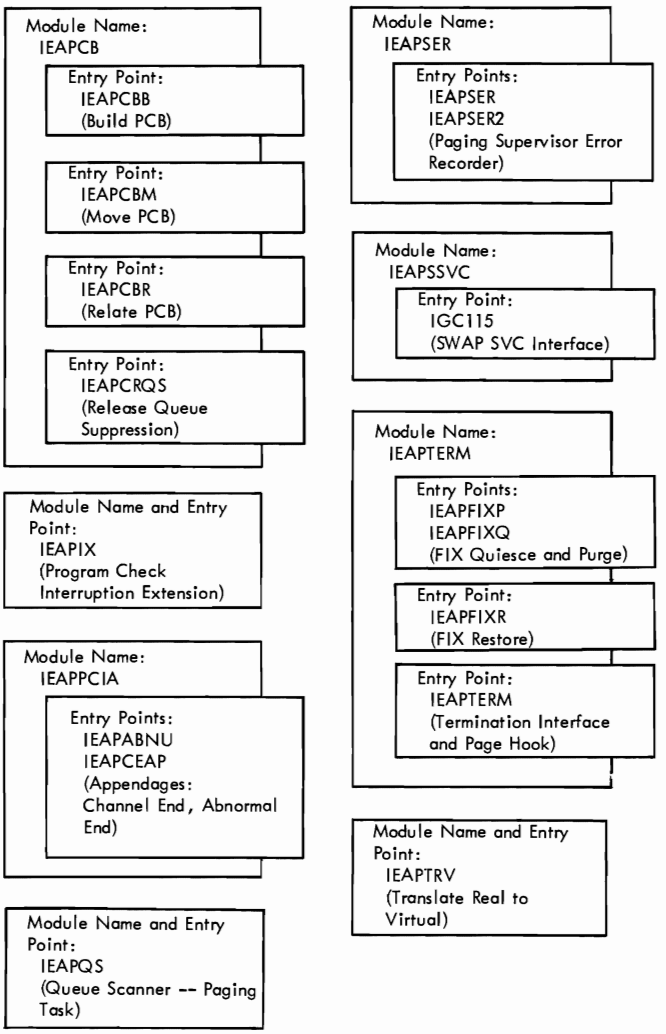


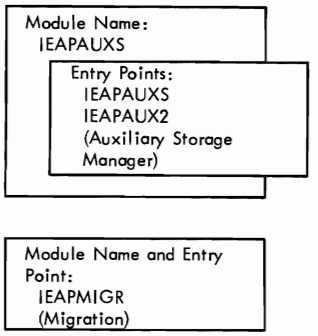
Figure 10-5. Program organization for page administration.

Paging Supervision — Interface Control



•Figure 10-6. Program organization for interface control.

Paging Supervision — Auxiliary Storage Management



•Figure 10-7. Program organization for auxiliary storage management.

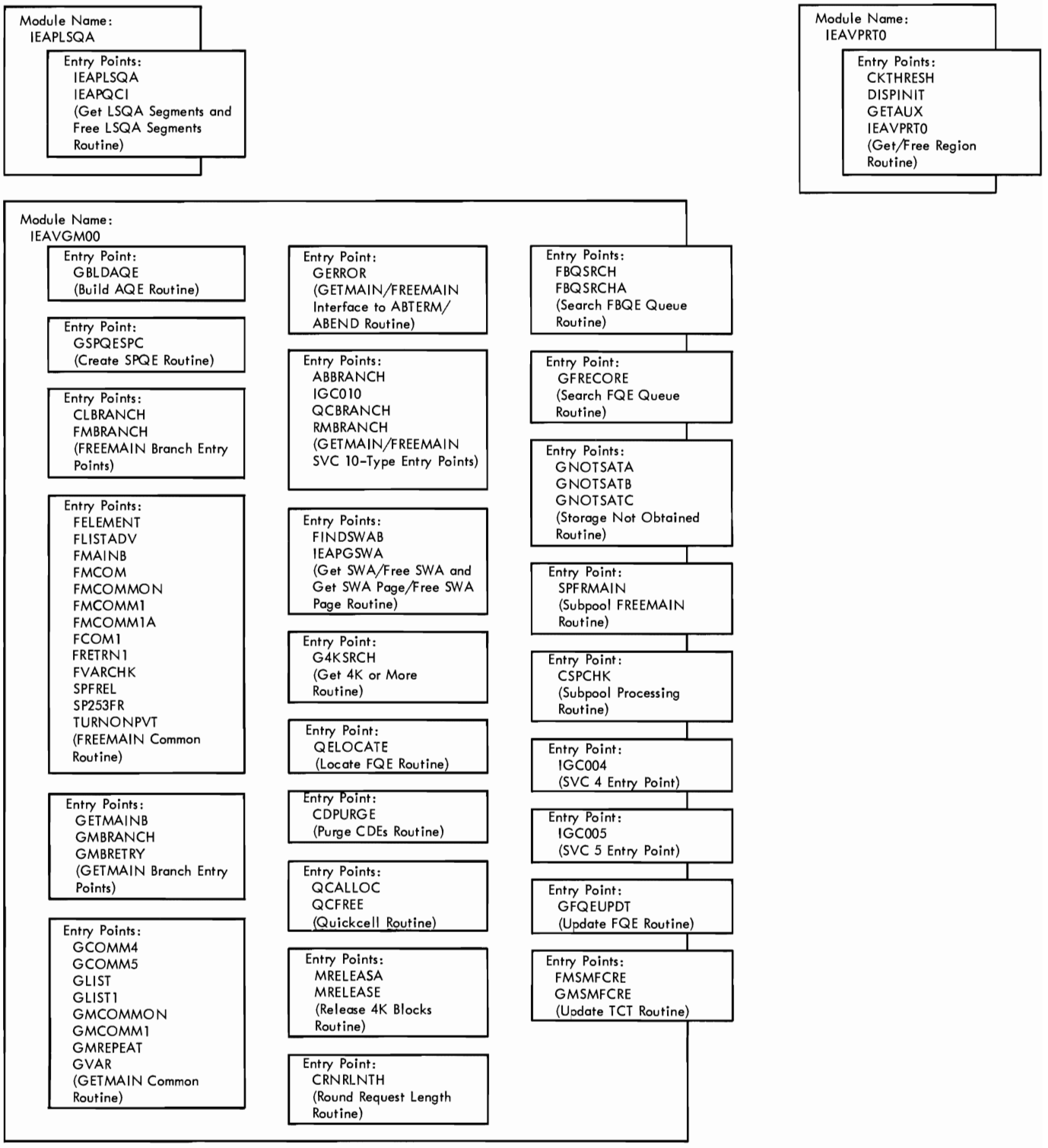


Figure 10-8. Program organization for virtual storage supervision.

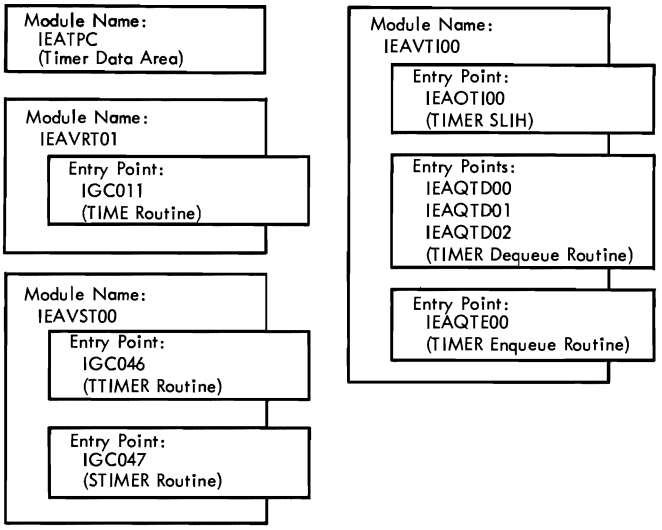


Figure 10-9. Program organization for timer supervision.

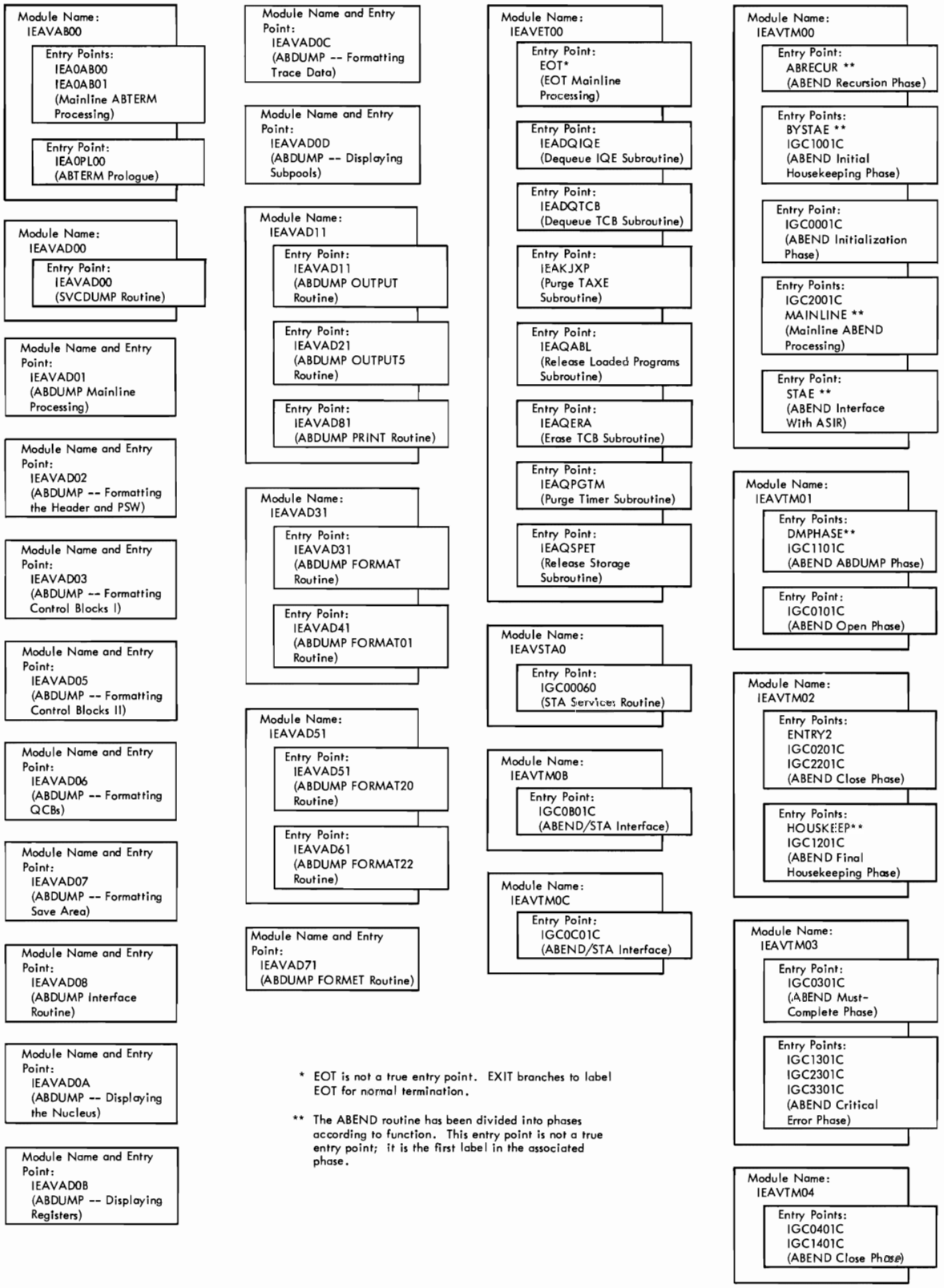


Figure 10-10. Program organization for termination.

The alphabetical list on the following pages contains the names of all significant routines in the supervisor. With each name is a brief description of what that routine does.

The name of each routine is followed by code letters in parentheses that indicate the supervisor component that contains the routine. The meanings of the code letters are:

Code Letters	Meaning
CS	Contents Supervision
IS	Interruption Supervision
PS	Paging Supervision
T	Termination
TMS	Timer Supervision
TS	Task Supervision
VSS	Virtual Storage Supervision

When you know the descriptive name of a routine, you can use this list to find out whether that routine performs the functions which you are interested in.

ABDUMP Routine (T): Displays control blocks, programs, and dynamically acquired virtual storage belonging to a task, as specified by input parameters. Invoked through a SNAP macro instruction either by the ABEND routine during abnormal termination, or by a user routine at any time.

ABEND Routine (T): Invokes ASIR (ABEND/STA Interface routine) if STA processing is indicated. Frees the control blocks, storage, and other resources used by a terminating task and its incomplete subtasks. Depending on the type of ABEND request, it terminates either a specific task and its incomplete subtasks, or all tasks in a job step. At the caller's option, ABEND invokes the ABDUMP routine to display resources belonging to the terminating task, its direct antecedents, and its descendants.

ABEND/STA Interface Routine (T): Invoked by ABEND when ABEND is entered to terminate a task that has an SCB queue. If STA processing is indicated, schedules a user's exit routine for each eligible SCB until a user's exit routine requests a retry, or until there are no eligible SCBs. ASIR returns to ABEND to proceed with abnormal termination when there are no eligible SCBs.

ABTERM Routine (T): Schedules execution of the ABEND routine. Used by system routines to terminate tasks other than the one they are a part of. Also used by type-1 SVC routines, which are not permitted to issue an SVC instruction and which, therefore, cannot directly invoke the ABEND routine.

Abnormal End Appendage Routine (PS): Frees resources no longer needed, schedules retries, and indicates errors in a PCB.

ASIR: See ABEND/STA Interface Routine.

ATTACH Routine (TS): Obtains storage for a new TCB for the subtask being attached. It places in the new TCB information needed to control the new subtask and allocates virtual storage to the subtask. ATTACH places the TCB for the new subtask on the task queue and on the subtask queue for the job step. Finally, ATTACH passes control to contents supervision, which finds and schedules execution of the first program for the new subtask.

Auxiliary Storage Manager (PS): Assigns or release external page storage in page data sets.

BLDL Routine (CS): Causes member addresses and optional information from a PDS DE (partitioned data set directory entry) to be placed in a BLDL list in virtual storage.

Build PCB Routine (PS): Gets a PCB for a request from the free queue or gets storage (via GETMAIN) for a new PCB if one is not available.

Channel End Appendage (PS): Frees resources no longer needed and attempts to reactivate the device.

CHAP Routine (TS): Changes the dispatching priority of a task by adding a specified value to the task's existing dispatching priority in its TCB. Ensures that the new dispatching priority is valid and corrects it if necessary.

Contents Supervision Subroutines (CS): Called by contents supervision to locate, fetch, and schedule execution of a module. If the module is in virtual storage and available for use, the subroutines schedule its execution. If the module is not in

virtual storage, or is nonreusable, they locate the module. They search the specified private library, the link library, or the job library; they then call Program Fetch to load the module. Finally, they schedule execution of the module. If the module is being loaded or is serially reusable and is in use, they place the current SVRB in a wait condition, and queue it to a list of SVRBs waiting for the module.

Create/Destroy Page Table Routine (PS): Builds or releases a PGT and XPT for a segment being allocated or freed.

Delayed Post Queue Processor (PS): Invokes Root Exit routines for PCBs on the delayed post queue (that is, those PCBs representing delayed second-exit requests).

DELETE Routine (CS): Locates the CDE (contents directory entry) for the specified module by searching the task's load list. If there are no outstanding LOAD requests for the module, DELETE removes the module's LLE (load list element) from the load list and frees the storage it occupies. DELETE tests the use count in the module's CDE and, if there are no outstanding requests for the module's use, it branches to CDHKEEP in the EXIT routine to test the module's attributes. According to these attributes, CDHKEEP returns control immediately to the caller, or frees the module's storage, or sets "release" and "purge" flags for the GETMAIN routine.

DEQ Routine (TS): Updates the resource queues by removing and freeing the QEL (queue element) that represents a request for a resource whose use is now complete. For the next requester on the QEL queue, the DEQ routine reduces the wait count in its RB and tests whether the requester is now ready. DEQ determines whether a readied requester can replace the caller as the next-to-be-dispatched task.

DETACH Routine (TS): Removes the specified TCB from the subtask queue for the job step and frees the TCB's storage. If the specified task is incomplete, DETACH schedules its abnormal termination.

Dispatcher (TS): Determines the routine to be executed next, restores its saved registers, and loads a PSW to give control to the routine. It also saves the status of the old task. For APG tasks, the dispatcher balances I/O and CPU tasks to make best use of the CPU. If the dispatcher does not find a ready TCB representing a routine that can be dispatched, it dispatches a dummy task which is part of the nucleus. The dispatcher also determines which tasks can be made nondispatchable to decrease the system paging load, and which tasks can be migrated to make more room on the primary paging device (see task disable routine).

Dispatcher Release Suppression Interface (PS): Schedules the paging task if any second-exit requests have been queued on the delayed post queue.

End-of-Task (EOT) Routine (T): Frees the resources used in executing a successfully completed task and ensures a task switch. The resources (control blocks, storage, data sets, modules) are freed only if they are not needed by another task.

ENQ Routine (TS): Permits programs issuing the ENQ or RESERVE macro instruction to gain one-at-a-time access to a resource or set of resources. A resource may be used by a single task or may be shared among several tasks that allow sharing. The requested resources may include one or more data sets, records within a data set, and programs or work areas within virtual storage. Any named resource can be controlled through the use of ENQ.

Exit Routine (TS): Handles exiting procedures for all programs other than type-1 SVC routines. The Exit routine gains control when an SVC 3 instruction is issued. Exit performs different processing for different types of programs. For program-check exit routines, Exit returns control to the user via the dispatcher. For programs controlled by an RB (request block), Exit dequeues the RB before going to the dispatcher. If the highest-level task is exiting, Exit calls the EOT (End-of-Task) routine to terminate the task.

External First-Level Interruption Handler (IS): Saves the caller's register contents in the TCB and the external old PSW in the current RB. Branches to the SMF Wait-Time Collection routine if the interruption occurred while the system wait TCB was current. Branches to the Trace routine to store information in the trace table. Examines the interruption code to determine whether the interruption was caused by the operator or the timer. Depending on the cause of the interruption, gives control to either the Timer Second-Level Interruption Handler or the communications task's External Interruption Handler.

EXTRACT Routine (TS): Moves the contents of specified TCB fields and fields from other subsidiary control blocks and data areas to a user-supplied block of virtual storage. A problem program can access only the TCBs on the subtask queue for its job step and its related data areas.

Fast FIX Routine (PS): Repairs pages that have been damaged, or marks a page as being nonpageable.

Find Page Routine (PS): Locates the PTE and XPTE for the input virtual address.

FIX/LOAD Asynchronous Completion Routine (PS): Cleans up resources, and signals completion of asynchronously completing FIX or LOAD requests.

FIX Purge Routine (PS): Frees all nonintercepted SVC fixed pages and purges all FOEs associated with a terminating task.

FIX Quiesce Routine (PS): Quiesces all activity relating to SVC FIX requests for a TSO region being quiesced.

FIX Restore Routine (PS): Restores all activity relating to SVC FIX requests for a TSO region being restored.

FOE Merge Routine (PS): Merges a list of FOEs for one TCB with a list of FOEs for another.

GETMAIN Routines (VSS): Allocate virtual storage in the amount and subpool specified. Assign storage key and fetch-protection keys. If the request is for space within a region and free space is not available, they make space available by purging those modules in the region's job pack area that are no longer needed. If sufficient space cannot be made available, they schedule the abnormal termination of the caller's task.

Get or Free LSQA Segments Routine (VSS): Allocates segments of virtual storage for an LSQA and builds control blocks for subsequent management of the segments. Returns specified LSQA segments to the queue of free blocks at the request of the DETACH service routine and End-of-Task routine.

GETPART or FREEPART Routine (VSS): Allocates virtual storage for a region, either a nonspecific region or a specific region (for checkpoint/restart processing), at the request of the system from either the V=R dynamic area (GETPART V=R) or the V=V dynamic area (GETPART V=V). Keeps track of external pages used to back up a TSO user region and batch regions. Creates a subpool 252 in the region and ensures that one page of it is available to the user. Returns region storage to the queue of free blocks in the dynamic area (V=V or V=R) from which it was allocated. If the request is to free a region, the job pack queue is purged, tasks that are waiting for allocation of a region are made ready, and a task switch is indicated.

Get or Free SWA Routine (VSS): Allocates one segment of V=V dynamic area for the SWA (system work area). Returns the specified SWA segment to the queue of free blocks for the V=V dynamic area. Allocates and releases pages in a SWA segment.

FREEMAIN Routines (VSS): Release allocated virtual storage of the length and in the subpool specified.

IDENTIFY Routine (CS): Creates a minor CDE (contents directory entry) for the specified embedded entry point in a load module. It then queues the minor CDE to the module's major CDE on the appropriate CDE queue. The IDENTIFY routine may be used to create a major CDE and an extent list for a module brought directly into virtual storage by the loader. This allows the supervisor to identify the module.

I/O First-Level Interruption Handler (IS): Sets the I/O switch (IORGSW) the first time an interruption occurs for a given I/O operation, saves the current register contents in the current TCB, and saves the I/O old PSW in the current RB. Branches to the Trace routine to store pertinent information in the trace table. Branches to the I/O supervisor to process the interruption. When control is returned at DISMISS, branches to the page-posting extension of the paging supervisor if the interruption was caused by a paging operation. Clears the I/O switch (IORGSW) and enters the dispatcher if a task switch or asynchronous exit has been scheduled. Otherwise, exits via LPSW to the interrupted routine.

LOAD Routine (CS): Brings a module containing a specified entry point into virtual storage if a usable copy is not available. The LOAD routine does not pass control to the load module; control returns to the caller.

Migration Routine (PS): Moves pages from primary to secondary paging devices.

MODESET Routine (TS): Changes system status for authorized requesters by altering the key, mode, and system mask in the SVC old PSW or the current PSW.

Move Page Routine (PS): Frees a page below the V=R line by moving data out of it into a page above the V=R line, or makes a page available above the V=R line by moving data to a page below the V=R line (for long-fixed pages).

Move PCB Routine (PS): Adds a PCB to a queue, or moves a PCB from one queue to another.

Overlay Supervisor (CS): Directs the loading of a specified overlay segment and any overlay segments in its path that are not in virtual storage. When loading is complete and the caller has issued a CALL macro instruction or a branch instruction,

the overlay supervisor alters the entry tables of the loaded overlay segments. The changes permit future branches to the same points in the loaded overlay segments without help from the overlay supervisor.

Page Hook Routine (PS): Handles termination of the paging supervisor.

Page I/O Post Routine (PS): Frees resources no longer needed for a PCB whose request has been completed by an I/O operation, and informs the supervisor of its completion.

Page I/O Supervisor (PS): Schedules the I/O operation necessary for a paging request.

Page Replacement Routine (PS): Performs page replacement algorithm processing (that is, makes page frames available as needed).

Page Service Interface (PS): Fixes, frees, loads, or releases pages as requested. Handles both branch and SVC 113 entries.

Page Supervisor Error Recorder (PS): Informs the operator of an error and either schedules the failing task for abnormal termination or, if the error will severely impact performance, places the system in a disabled wait state.

PFTE Dequeue Routine (PS): Removes a PFTE from a specified queue.

PFTE Enqueue Routine (PS): Adds a PFTE to a specified queue.

POST Routine (TS): Signals to a waiting task that an event it is waiting for has occurred. POST places the caller's post code in the specified ECB (event control block), sets the completion bit, and clears the wait bit in the ECB. POST also decreases by 1 the RB (request block) wait count in the RB of the waiting routine. If the new RB wait count is greater than 0, POST prepares for returning control to the caller. If the new RB wait count is now 0, POST branches to the Task Switch routine, and then returns control to the caller or the newly readied routine.

Program-Check Interruption Extension (PS): Builds a PCB for and schedules the page-in, if necessary, for an implicit page-in request (that is, a missing page exception).

Program Fetch (CS): Obtains needed storage space, initializes tables and an extent list, initiates I/O operations, and loads the specified module or overlay segment into virtual storage. It performs relocation of address constants, computes the module's relocated entry-point address, and returns the entry-point address to the caller.

Program Fetch Channel-End Appendage Routine (CS): Determines whether all buffers are full and whether the entire module or the overlay segment has been loaded. This routine receives control from and returns control to the interruption supervisor.

Program Fetch PCI Appendage Routine (CS): After each PCI interruption, tests a record in the current RLD (relocation dictionary) buffer. When necessary, it causes a channel program switch between two-record mode and single-record mode. Such a switch is necessary when an RLD or control record does not follow a text record on auxiliary storage. When the last record has been read, the routine posts a fetch ECB to signal Program Fetch that another record of address constants is available for relocation. This routine receives control from and returns control to the I/O supervisor.

Quickcell Routine (VSS): Allocates storage from the SWA or LSQA quickcell area. Releases a currently allocated quickcell.

Program Interruption Handler (IS): Saves the register contents in lower real storage, then determines the cause of the program interruption. For translation specification exceptions, branches to the paging supervisor's Program-Check Interruption Extension.

For recursion, branches to the generalized trace facility or the ABTERM Prologue routine.

For SSM (Set System Mask) interruptions, sets the system mask and exits to the dispatcher or the requesting routine.

For page translation exceptions, branches to the paging supervisor Program-Check Interruption Extension. If the page is made available, the interrupted task is resumed; if it is not available, the Program Interruption Handler exits to the dispatcher to allow the next task to be executed. If the page is invalid, the interruption is handled like a protection exception.

For program check interruptions, gives control to the ABTERM Prologue routine if the interrupted routine was operating in supervisor state. If the interrupted routine was operating in problem state, determines whether the address of a PIE (program interruption element) is in the current TCB. If not, branches to the ABTERM Prologue routine. Otherwise, stores the program old PSW and register 2-14 in the PIE. If a program interruption control area (PICA) is

not in effect or is being used, the routine branches to the ABTERM Prologue routine. Otherwise, places the entry-point address of the interrupted routine in the program old PSW and branches to the dispatcher to schedule the user-written error routine.

Purge Routine (VSS): Frees all purgeable modules in the job pack area when a request for space within a region cannot be satisfied normally or when a region is being freed.

Queue Scanner (Page Task) (PS): Finds a PCB queue with pending requests that is not suppressed and invokes its associated queue processor.

Real Storage Allocation Routine (PS): Assigns a page frame to a virtual address.

Relate PCB Routine (PS): Logically associates one PCB to another.

Release Routine (PS): Releases the real and external storage pages associated with the input virtual address. Handles both branch and SVC 112 entries.

Release Queue Suppression Routine (PS): Allows the requests on a queue that was suppressed because of resource depletion to be processed.

Reserve Replenish Routine (PS): Adds PFTEs to the SQA reserve queue or initiates needed replacement.

Second-Exit Return Routine (PS): Reestablishes addressability and returns control to the caller of the FIX/LOAD Asynchronous Completion routine after return from the Second-Exit routine.

SMF Interface Routine (VSS): Maintains a record of: (1) the lowest address allocated from the top of the region (high-water mark), (2) the highest address allocated from the bottom of the region (low-water mark), and (3) the minimum difference between them in 4K blocks. The minimum difference is adjusted downward only and is used to determine the maximum amount of storage used by the task.

SPIE Routine (TS): Places an indirect pointer to the specified user's error-handling routine into the caller's TCB. SPIE either finds the existing PIE (program interruption element) for the task or builds a new one, and places its address in the caller's TCB. SPIE then places in the PIE the address of the PICA (program interruption control area). The PICA contains the address of the user's error-handling routine.

SQA/LSQA Allocation Routine (PS): Assigns a page frame for use as SQA or LSQA storage, or allocates a needed page frame when processing by the Real Storage Allocation routine fails for disabled page fault.

STA Services Routine (T): Creates, overlays, or cancels an SCB (STA control block) containing the address of a user-written exit routine and control information.

Stage 1 Exit Effector (TS): Builds and initializes either an IRB (interruption request block) or a TIRB (task interruption request block). An IRB controls a user's exit routine whose future asynchronous use is requested by the caller. A TIRB permits the supervisor to defer its execution until it can run under the TCB of the task being serviced.

Stage 2 Exit Effector (TS): Continues the scheduling procedure begun by the Stage 1 Exit Effector by placing the specified queue element (IQE, RQE, or SQE) on the appropriate asynchronous exit queue. Each queue element belongs to a specific IRB or TIRB.

Stage 3 Exit Effector (TS): Completes the scheduling of a user's exit routine or of asynchronous execution under a TIRB. Stage 3 transfers an IQE, RQE, or SQE from its asynchronous exit queue to the appropriate IRB, SIRB, or TIRB respectively, and queues the IRB, SIRB, or TIRB to the proper TCB.

STIMER Routine (TMS): Builds TQEs (timer queue elements) that represent specified time intervals and places them on the timer queues.

System Task ABEND Recovery (STAR) Exit Routine of the System Error Task (TS): When a system task fails, its STAR routine abnormally terminates the task that caused the permanent error and purges the system error task's resources. This readies the system error task to handle another error.

STATUS Routine (TS): Permits a problem or system program to change the TCB fields that control the dispatching of a task. A problem program can change only TCBs on the subtask queue for its job step.

SVCDUMP Routine (T): Dumps virtual storage to tape or disk as specified by the requester. Entered by any program issuing a SNAP or SDUMP macro instruction (SVC 51). Passes control to ABDUMP if invoked by a SNAP macro instruction. The dump produced by SVCDUMP can be printed using the system utility AMDPRDMP.

SVC First-Level Interruption Handler (IS): Saves the caller's register contents. Determines from the SVC table the type of SVC routine to be given control. For a type-1 SVC routine, gives control to the routine. For a type-2, 3, or 4 routine, gives control to the SVC Second-Level Interruption Handler.

SVC Second-Level Interruption Handler (IS): Constructs an SVRB (supervisor request block). Moves the caller's register contents from lower real storage to the SVRB. Queues the SVRB to the TCB for the caller's task. Causes the SVC routine to be paged into real storage if necessary. Enables or disables interruptions for the SVC routine and passes control to the SVC routine.

Swap Control Routine (PS): Sets up to swap in or swap out specified pages of a TSO region.

Swap-in Completion Routines (Stages 1, 2, and 3) (PS): Performs Root Exit processing when a swap-in operation is completed.

Swap-out Completion Routine (PS): Performs Root Exit processing when a swap-out operation is completed.

Swap SVC Interface Routine (PS): Builds a PCB and root PCB representing the swap request (SVC 115) and adds them to the swap queues for later processing by the Swap Control routine.

SYNCH Routine (CS): Permits supervisor routines to take synchronous exits to problem programs. The SYNCH routine schedules the execution of the problem program and ensures that the supervisor regains control after it executes.

Task Disable Routine (PS): Disables a task when too much paging activity (thrashing) has been done in a specified timer interval. Reactivates a disabled task when more paging can be done. (That is, it performs the task disabling algorithm processing.)

Task Post Queue Processing Routine (PS): Frees resources no longer needed by a PCB on the task post queue and informs the supervisor of its completion.

Task Switch Routine (TS): Determines whether a newly readied task, which may be of higher dispatching priority than the current task, should be dispatched in place of the current task. Task Switch compares the dispatching priority of the specified ready task with that of the next-to-be-dispatched task. (The address of the TCB for the next-to-be-dispatched task is stored in the NEW TCB pointer, IEATCBP.) If the specified task's priority is higher, Task Switch places its TCB pointer in the NEW TCB pointer. If the specified task priority is lower, Task Switch makes no change. If the task priorities are equal, Task Switch must check several conditions before it determines which task should be dispatched.

Termination Interface Routine (PS): Purges paging resources by TCB, RB, TCB and RB, or region for a terminating task.

TESTAUTH Routine (TS): Supports the APF (authorized program facility), a security and integrity facility. The APF allows restricted functions to be used only by authorized programs. TESTAUTH uses a function code (associated with a resource) and an authorization code (associated with the program) to determine whether the program is entitled to use the resource.

Threshold Checking Routine (PS): Determines whether any paging supervisor thresholds have been violated.

TIME Routine (TMS): Determines the current date and time of day and returns both values to the caller.

Timer Second-Level Interruption Handler (TMS): Entered from the External First-Level Interruption Handler after a CPU timer or clock comparator interruption. Determines what action to take by removing and examining the TQE (timer queue element) whose time interval has expired. May prepare entry to a user-written routine or post a specified ECB. Resets the clock comparator or CPU timer, using the value contained in the TQE at the head of the appropriate queue.

Trace Routine (IS): An optional system function which may be used to record up to 32 bytes of task-related information for interruption-handling routines, the dispatcher, or the I/O supervisor Start I/O routine.

Translate Real to Virtual Routine (PS): Calculates the virtual address that represents the input real address.

TTIMER Routine (TMS): Returns the time remaining in an interval in register 0 to the caller. Cancels remaining interval and exits to a user-written exit routine if so requested by the caller.

Type-1 Exit Routine (TS): Routes control to the interrupted routine or to the dispatcher. It restores register contents and returns control to the interrupted routine if the need for a task switch is not indicated. (A task switch is not indicated if the address in the two TCB pointers, IEATCBP and IEATCBP+4, are equal.) If the need for a task switch is indicated, Type-1

Exit moves saved register contents to the current TCB, and gives control to the dispatcher to perform the task switch.

Validity Check Routine (TS): Verifies user-supplied addresses. It checks the addresses for fullword boundary alignment, determines whether the addresses are in virtual storage assigned to the specified task, and determines whether the addresses indicate storage whose protection keys match the protection key in the caller's TCB. All pageable (V=V) tasks have the same protection key, and validity check determines whether the addresses are in a valid segment range.

V=R Allocation Routine (PS): Allocates the necessary page frames below the V=R line for a V=R region.

V=R Region Flush Routine (PS): Attempts to finish or cancel allocation of regions below the V=R line.

V=R Region Free Routine (PS): Releases a region below the V=R line.

V=R Release Routine (PS): Allocates newly available page frames below the V=R line to deferred V=R region allocation requests.

WAIT Routine (TS): Determines whether any of the specified events have occurred. If all have occurred, WAIT prepares for returning control to the caller. If all the specified events have not occurred, WAIT makes the caller wait by placing the appropriate wait count in the caller's RB (request block) and setting the wait bit in the ECB (event control block). WAIT then indicates the need for a task switch.

XCTL Routine (CS): Passes control to a specified entry point. The XCTL routine brings the load module containing the entry point into virtual storage if a usable copy is not available. No return is made to the calling routine.

SECTION 11

Directory

11

MODULE DIRECTORY..... 719

DIRECTORY OF ENTRY-POINT NAMES..... 729

SVC DIRECTORY..... 734

The module directory on the following pages enables you to quickly identify the module name and control section name for each routine in the supervisor. The directory also cross-references you to the parts of this logic manual that describe each routine.

Two sets of code letters are used in the directory. PLM section codes are:

Code	Meaning
2:IS	Section 2: Interruption Supervision
3:TS	Section 3: Task Supervision
4:CS	Section 4: Contents Supervision
5:PS	Section 5: Paging Supervision
6:VSS	Section 6: Virtual Storage Supervision
7:TMS	Section 7: Timer Supervision
8:T	Section 8: Termination

Library codes are:

Code	Meaning
LINK	Link library data set (SYS1.LINKLIB)
LPA	Link pack area data set (SYS1.LPALIB)
NUC	Nucleus data set (SYS1.NUCLEUS)

Several entry points show decimal displacement from the primary entry point; an example is IGC040+8.

Entry Point	Routine	Module	Control Section	PLM References: Section	PLM References: Dia-gram	PLM References: Flow-chart	Lib-rary	If SVC Routine: Type	If SVC Routine: Macrc	If SVC Routine: SVC	Distr. Name
ABBRANCH	GETMAIN/FREEMAIN ABEND (branch entry point)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC				IEAVGM00
ABNDSET	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
ABRECUR*	ABEND Recursion phase	IEAVTM00	IGC0001C	8:T	8.24		LPA	4			IGC0001C
ALIASRCH	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
ALIAS1	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
BUILDEL	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
BYSTAE*	ABEND Initial Housekeeping phase (entry point for ABEND)	IEAVTM00	IGC0001C	8:T	8.16		LPA	4			IGC0001C
CDADVANS	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
CDALLOC	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CDCONTRL (Also called IEAQCS02)	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS	4.2		NUC				IEAVLK01
CDDESTRY	Exit	IEAVET00	IGC003	3:TS	3.14	3-2	NUC				IEAVET00
CDEADD	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
CDEMERGE	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
CDEPILOG (Also called IEAQCS03)	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
CDEXIT	Exit	IEAVET00	IGC003	3:TS	3.14	3-2	NUC				IEAVET00
CDFILIN	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS	4.3		NUC				IEAVLK01
CDHKEEP	Exit	IEAVET00	IGC003	3:TS	3.14	3-2	NUC				IEAVET00
CDLDRET	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CDLLSRCH	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CDMOPUP	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CDMRGRET	Contents super vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
CDPURGE	Purge CDEs	IEAVGM00	IEAVGN00	6:VSS	6.9		NUC				IEAVGM00
CDQUECTL	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CDSEARCH	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CDSETUP	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS	4.3		NUC				IEAVLK01
CKTHRESH	Check Threshold	IEAVPRT0	IEAVPTR0	6:VSS	6.14		NUC				IEAVPRT0
CLBRANCH	FREEMAIN (branch entry point from CDESTRY)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC				IEAVGM00
CONTSRCH	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
CRNDLNTH	Round Request Length	IEAVGM00	IEAVGM00	6:VSS	6.2 6.27		NUC				IEAVGM00
CSPCHK	Subpool processing	IEAVGM00	IEAVGM00	6:VSS	6.3		NUC				IEAVGM00

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

Entry Point	Routine	Module	Control Section	PLM References				If SVC Routine			Distr. Name
				Section	Dia-gram	Flow-chart	Lib-rary	Type	Macro	SVC	
DALPRFIX	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
DEFOUND	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
DETOLPAQ	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
DISABLE	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
DISMISS	I/O First-Level Interruption Handler	IEAVNV00	IEAVNV00	2:IS	2.1		NUC				IEAVNV00
DISPINIT	Dispatch Initiators	IEAVPRT0	IEAVPTR0	6:VSS	6.14 6.31		NUC				IEAVPRT0
DMPHASE*	ABEND ABDUMP phase	IEAVTM01	IGC0101C	8:T	8.19		LPA	4			IGC0101C
DQLOAD	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
ECTOBC	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
ENABLE	Contents super-vision subroutine	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
ENTRY2	ABEND Close phase (entry point to purge resources)	IEAVTM02	IGC0201C	8:T	8.20		LPA	4			IGC0201C
EOT**	EOT Mainline processing	IEAVET00	IGC003	8:T	8.3		NUC				IEAVET00
ERFETCH	Stage 3 Exit Effector	IEAVNU00	IEAVNU00	3:TS	3.13		NUC				IEAVNU00
ERRBLDL	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
ERRCOUNT	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
ERRFETCH	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
ERRLOCK	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
ERRONLY	Contents super-vision subroutines	IEAVLK00 IEAVLK01	IEAVLK00 IEAVLK01	4:CS			NUC				IEAVLK00 IEAVLK01
ERRORTAB	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
ERRXCUTE	Contents super-vision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
FBQSRCH	Search FBQE Queue	IEAVGM00	IEAVGM00	6:VSS	6.6		NUC				IEAVGM00
FBQSRCHA	Search FBQE Queue	IEAVGM00	IEAVGM00	6:VSS	6.6		NUC				IEAVGM00
FELEMENT	FREEMAIN Element	IEAVGM00	IEAVGM00	6:VSS	6.25		NUC				IEAVGM00
FIXLOAD2	FIX/LOAD Asynch-ronous Completion	IEAPSI	IEAPSI	5:PS	5.24		NUC				IEAPSI
FIXLOAD3	Second-exit Return	IEAPSI	IEAPSI	5:PS	5.24		NUC				IEAPSI
FLISTADV	FREEMAIN list	IEAVGM00	IEAVGM00	6:VSS	6.25		NUC				IEAVGM00
FMAINB	FREEMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.25		NUC				IEAVGM00
FMBRANCH	FREEMAIN (branch entry point)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC				IEAVGM00
FMCOMM	FREEMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.27		NUC				IEAVGM00
FMCOMMON	FREEMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.1 6.25		NUC				IEAVGM00
FMCOMM1	FREEMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.26		NUC				IEAVGM00
FMSMFCRE	FREEMAIN SMF	IEAVGM00	IEASMFGF	6:VSS	6.10		NUC				IEAVGM00
FTCE01	Program Fetch Chan-nel-End Appendage	IEWFETCH	IEWFETCH	4:CS			NUC				IEWFETCH
FTCPI01	Program Fetch PCI Appendage	IEWFETCH	IEWFETCH	4:CS			NUC				IEWFETCH
FVARCHK	FREEMAIN variable request	IEAVGM00	IEAVGM00	6:VSS	6.25		NUC				IEAVGM00

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.
** EOT is a label, not a true entry point. Exit enters EOT by branching to label EOT.

Entry Point	Routine	Module	Control Section	PLM References: Section	PLM References: Dia-gram	PLM References: Flow-chart	Lib-rary	If SVC Routine: Type	If SVC Routine: Macro	If SVC Routine: SVC	Distr. Name
GBLDAQE	Build AQE	IEAVGM00	IEAVGM00	6:VSS	6.2		NUC				IEAVGM00
GERROR	GETMAIN/FREEMAIN interface with ABEND/ABTERM	IEAVGM00	IEAVGM00	6:VSS	6.24		NUC				IEAVGM00
GETMAINB	Get storage for control blocks	IEAVGM00	IEAVGM00	6:VSS	6.4		NUC				IEAVGM00
GETSAVE	ATTACH (branch entry point from dispatcher)	IEAVAT00	IGC042	3:TS			NUC				IEAVAT00
GFQEUPDT	Update FQE	IEAVGM00	IEAVGM00	6:VSS	6.8		NUC				IEAVGM00
GFRECORE	Search FQE Queue	IEAVGM00	IEAVGM00	6:VSS	6.7		NUC				IEAVGM00
GINREGS	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
GLIST	GETMAIN List	IEAVGM00	IEAVGM00	6:VSS	6.2		NUC				IEAVGM00
GLIST1	GETMAIN List	IEAVGM00	IEAVGM00	6:VSS	6.2		NUC				IEAVGM00
GMBRANCH	GETMAIN (branch entry point)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC				IEAVGM00
GMBRETRY	Get storage for control blocks	IEAVGM00	IEAVGM00	6:VSS	6.4		NUC				IEAVGM00
GMCOMMON	GETMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.1 6.2		NUC				IEAVGM00
GMCOMM1	GETMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.2		NUC				IEAVGM00
GMCOMM4	GETMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.2		NUC				IEAVGM00
GMCOMM5	GETMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.2		NUC				IEAVGM00
GMSMFCRE	GETMAIN SMF	IEAVGM00	IEASMFGF	6:VSS	6.10		NUC				IEAVGM00
GNOTSATA	Storage not obtained	IEAVGM00	IEAVGM00	6:VSS	6.23		NUC				IEAVGM00
GNOTSATB	Storage not obtained	IEAVGM00	IEAVGM00	6:VSS	6.23		NUC				IEAVGM00
GNOTSATC	Storage not obtained	IEAVGM00	IEAVGM00	6:VSS	6.23		NUC				IEAVGM00
GSPQESPC	Create SPQE	IEAVGM00	IEAVGM00	6:VSS	6.5		NUC				IEAVGM00
G4KSRCH	Get 4K or More	IEAVGM00	IEAVGM00	6:VSS	6.22		NUC				IEAVGM00
HOUSKEEP*	ABEND Final Housekeeping phase	IEAVTM02	IGC0201C	8:T	8.21		LPA	4			IGC0201C
IDPREFIX	In IDENTIFY	IEAVID00	IEAVID00	4:CS			NUC				IEAVID00
IEACQDSR	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
IEADQIQE	EOT - Dequeue IQE subroutine	IEAVET00	IGC003	8:T	8.3		NUC				IEAVET00
IEADQTCB	EOT - Dequeue TCB subroutine	IEAVET00	IGC003	8:T	8.5		NUC				IEAVET00
IEAKJXP	EOT - Purge TAXEs subroutine	IEAVET00	IGC003	8:T	8.6		NUC				IEAVET00
IEAMODBR	MODESET (branch entry point from dispatcher)	IEAVMODE	IGC107	3:TS	3.21		NUC	1			IEAVMODE
IEAPABNU	Abnormal End Appendage	IEAPPCIA	IEAPPCIA	5:PS	5.55		NUC				IEAPPCIA
IEAPALOC	Real Storage Allocation	IEAPALOC	IEAPALOC	5:PS	5.6		NUC				IEAPALOC
IEAPAUXS	Auxiliary Storage Manager	IEAPAUXS	IEAPAUXS	5:PS	5.63		NUC				IEAPAUXS
IEAPAUX2	Auxiliary Storage Manager	IEAPAUXS	IEAPAUXS	5:PS	5.63		NUC				IEAPAUXS
IEAPCBB	Build PCB	IEAPCB	IEAPCBM	5:PS	5.49		NUC				IEAPCB
IEAPCBM	Move PCB	IEAPCB	IEAPCBM	5:PS	5.48		NUC				IEAPCB
IEAPCBR	Relate PCB	IEAPCB	IEAPCBM	5:PS	5.50		NUC				IEAPCB
IEAPCEAP	Channel-End Appendage	IEAPPCIA	IEAPPCIA	5:PS	5.55		NUC				IEAPPCIA

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

Entry Point	Routine	Module	Control Section	PLM References: Section	Diagram	Flowchart	Library	If SVC Routine: Type	Macro	SVC	Distr. Name
IEAPCHTH	Threshold Checking	IEAPRPLS	IEAPRPLS	5:PS	5.19		NUC				IEAPRPLS
IEAPCLR2	Release	IEAPCLR	IEAPCLR	5:PS	5.31		NUC				IEAPCLR
IEAPCLR3	Release	IEAPCLR	IEAPCLR	5:PS	5.32		NUC				IEAPCLR
IEAPCRQS	Release Queue Suppression	IEAPCB	IEAPCBM	5:PS	5.51		NUC				IEAPCB
IEAPDSBL	Task disablement algorithm	IEAPRPLS	IEAPRPLS	5:PS	5.19		NUC				IEAPRPLS
IEAPFIXP	FIX Purge	IEAPTERM	IEAPTERM	5:PS	5.58		NUC				IEAPTERM
IEAPFIXQ	FIX Quiesce	IEAPTERM	IEAPTERM	5:PS	5.58		NUC				IEAPTERM
IEAPFIXR	FIX Restore	IEAPTERM	IEAPTERM	5:PS	5.59		NUC				IEAPTERM
IEAPFP	Find Page	IEAPFP	IEAPFP	5:PS	5.27		NUC				IEAPFP
IEAPFP2	Find Page	IEAPFP	IEAPFP	5:PS	5.27		NUC				IEAPFP
IEAPGSFF	Fast FIX	IEAPSI	IEAPSI	5:PS	5.23		NUC				IEAPSI
IEAPIN1	Swap-in Stage 1 Completion	IEAPSWAP	IEAPSWAP	5:PS	5.38		LINK				IEAPSWAP
IEAPIN3	Swap-in Stage 3 Completion	IEAPSWAP	IEAPSWAP	5:PS	5.38		LINK				IEAPSWAP
IEAPIN4	Swap-in Stage 4 Completion	IEAPSWAP	IEAPSWAP	5:PS	5.38		LINK				IEAPSWAP
IEAPIOP	Page I/O Post	IEAPIOP	IEAPIOP	5:PS	5.28		NUC				IEAPICP
IEAPIOS	Page I/O Supervisor	IEAPIOS	IEAPIOS	5:PS	5.44		NUC				IEAPIOS
IEAPIOS2	Page I/O Supervisor	IEAPIOS	IEAPIOS	5:PS	5.44		NUC				IEAPICS
IEAPIOS3	Page I/O Supervisor	IEAPIOS	IEAPIOS	5:PS	5.44		NUC				IEAPIOS
IEAPIX	Program-Check Interruption Extension	IEAPIX	IEAPIX	5:PS	5.46		NUC				IEAPIX
IEAPLSQA	GET/FREE LSQA Segments	IEAPLSQA	IEAPLSQA	6:VSS	6.11 6.30		NUC				IEAPLSQA
IEAPMIGR	Migration	IEAPMIGR	IEAPMIGR	5:PS	5.62		NUC				IEAPMIGR
IEAPMVPG	Move Page	IEAPVEQR	IEAPVEQR	5:PS	5.14		NUC				IEAPVEQR
IEAPMVP2	Move Page	IEAPVEQR	IEAPVEQR	5:PS	5.14		NUC				IEAPVEQR
IEAPQCI	Quickcell Initialization	IEAPLSQA	IEAPLSQA	6:VSS	6.12		NUC				IEAPLSQA
IEAPQS	Queue Scanner	IEAPQS	IEAPQS	5:PS	5.53		NUC				IEAPQS
IEAPRLS2	PFT Enqueue	IEAPRPLS	IEAPRPLS	5:PS	5.17		NUC				IEAPRPLS
IEAPRLS3	PFT Enqueue	IEAPRPLS	IEAPRPLS	5:PS	5.18		NUC				IEAPRPLS
IEAPRPLS	Page replacement algorithm	IEAPRPLS	IEAPRPLS	5:PS	5.15		NUC				IEAPRPLS
IEAPRSRL	Reserve Replenish	IEAPSQA	IEAPSQA1	5:PS	5.9	5-1	NUC				IEAPSQA
IEAPSER	Paging Supervisor Error Recorder	IEAPSER	IEAPSER	5:PS	5.54		NUC				IEAPSER
IEAPSER2	Paging Supervisor Error Recorder	IEAPSER	IEAPSER	5:PS	5.54		NUC				IEAPSER
IEAPSIBR	Page Service Request Handler	IEAPSI	IEAPSI	5:PS	5.20		NUC				IEAPSI
IEAPSIQR	Page Service Request Handler	IEAPSI	IEAPSI	5:PS	5.20		NUC				IEAPSI
IEAPSI2	Delayed Post Queue Processor	IEAPSI	IEAPSI	5:PS	5.25		NUC				IEAPSI
IEAPSI3	Dispatcher release suppression interface	IEAPSI	IEAPSI	5:PS	5.25		NUC				IEAPSI
IEAPSI5	FOE Merge	IEAPSI	IEAPSI	5:PS	5.26		NUC				IEAPSI
IEAPSQA1	SQA/LSQA Allocation	IEAPSQA	IEAPSQA1	5:PS	5.8		NUC				IEAPSQA
IEAPSQA2	SQA/LSQA Allocation	IEAPSQA	IEAPSQA1	5:PS	5.8		NUC				IEAPSQA
IEAPSWAP	Swap	IEAPSWAP	IEAPSWAP	5:PS			LINK				IEAPSWAP
IEAPTCD	Create/Destroy Page Table	IEAPTCD	IEAPTCD	5:PS	5.34 5.35		NUC				IEAPTCD
IEAPTERM	Termination interface	IEAPTERM	IEAPTERM	5:PS			NUC				IEAPTERM
IEAPTQP	Task Post Queue Processor	IEAPIOP	IEAPIOP	5:PS	5.28		NUC				IEAPICP
IEAPTRV	Translate Real to Virtual	IEAPTRV	IEAPTRV	5:PS	5.47		NUC				IEAPTRV
IEAPVRAL	V=R Allocation	IEAPVEQR	IEAPVEQR	5:PS	5.10		NUC				IEAPVEQR

Entry Point	Routine	Module	Control Section	PLM References: Section	Dia-gram	Flow-chart	Lib-rary	If SVC Routine: Type	Macro	SVC	Distr. Name
IEAPVRFL	V=R Flush	IEAPVEQR	IEAPVEQR	5:PS	5.13		NUC				IEAPVEQR
IEAPVRFR	V=R Region Free	IEAPVEQR	IEAPVEQR	5:PS	5.12		NUC				IEAPVEQR
IEAPVRS	V=R Release	IEAPVEQR	IEAPVEQR	5:PS	5.11		NUC				IEAPVEQR
IEAQABL	EOT-Release Loaded Programs subroutine	IEAVET00	IGC003	8:T	8.8		NUC				IEAVET00
IEAQCDSR	Contents supervision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
IEAQCS01	ATTACH entry	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
IEAQCS02 (Also called CDCONTRL)	Contents supervision subroutines	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
IEAQCS03 (Also called CDEPILOG)	Contents supervision subroutine	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
IEAQCS04	Contents supervision subroutine	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
IEAQERA	EOT - Erase TCB subroutine	IEAVET00	IEAVET00	8:T	8.4		NUC				IEAVET00
IEAQEX00	External First-Level Interruption Handler	IEAVNV00	IEAVNV00	2:IS	2.4		NUC				IEAVNV00
IEAQIO00	I/O First-Level Interruption Handler	IEAVNV00	IEAVNV00	2:IS	2.1		NUC				IEAVNV00
IEAQPGTM	EOT - Purge Timer subroutine	IEAVET00	IEAVET00	8:T	8.7		NUC				IEAVET00
IEAQSC00	SVC First-Level Interruption Handler	IEAVNV00	IEAVNV00	2:IS	2.2		NUC				IEAVNV00
IEAQSPET	EOT - Release Storage subroutine	IEAVET00	IGC003	8:T	8.9		NUC				IEAVET00
IEAQTD00	Timer Dequeue (to cancel an existing timer interval)	IEAVTI00	IEAVTI00	7:TMS	7.7		NUC				IEAVTI00
IEAQTD01	Timer Dequeue (to save remaining timer interval)	IEAVTI00	IEAVTI00	7:TMS	7.7		NUC				IEAVTI00
IEAQTD02	Timer Dequeue (to remove TQEs from queue when switching tasks)	IEAVTI00	IEAVTI00	7:TMS	7.7		NUC				IEAVTI00
IEAQTE00	Timer Enqueue	IEAVTI00	IEAVTI00	7:TMS	7.6		NUC				IEAVTI00
IEAQTR00	SVC Second-Level Interruption Handler	IEAVNV00	IEAVNV00	2:IS	2.3		NUC				IEAVNV00
IEATRSCN	STATUS (branch entry point from system routines)	IEAVSETS	IGC079	3:TS	3.18		NUC				IEAVSETS
IEAVAD00	SVCDUMP routine	IEAVAD00	IEAVAD00	8:T	8.26		LPA	3	SNAP SDUMP	51	IEAVAD00
IEAVAD01	ABDUMP Mainline processing	IEAVAD01	IEAVAD01	8:T	8.27		LPA				IEAVAD01
IEAVAD02	ABDUMP - formatting the header and PSW	IEAVAD02	IEAVAD02	8:T	8.28		LPA				IEAVAD02
IEAVAD03	ABDUMP - formatting control blocks I	IEAVAD03	IEAVAD03	8:T	8.29		LPA				IEAVAD03
IEAVAD05	ABDUMP - formatting control blocks II	IEAVAD05	IEAVAD05	8:T	8.30		LPA				IEAVAD05
IEAVAD06	ABDUMP - formatting QCBs	IEAVAD06	IEAVAD06	8:T	8.31		LPA				IEAVAD06
IEAVAD07	ABDUMP - displaying the save area	IEAVAD07	IEAVAD07	8:T	8.32		LPA				IEAVAD07
IEAVAD08	ABDUMP interface	IEAVAD08	IEAVAD08	8:T	8.33		LPA				IEAVAD08

Entry Point	Routine	Module	Control Section	PLM References: Section	PLM References: Diagram	PLM References: Flowchart	Library	If SVC Routine: Type	If SVC Routine: Macro	If SVC Routine: SVC	Distr. Name
IEAVAD0A	ABDUMP - displaying the nucleus	IEAVAD0A	IEAVAD0A	8:T	8.34		LPA				IEAVAD0A
IEAVAD0B	ABDUMP - displaying registers	IEAVAD0B	IEAVAD0B	8:T	8.35		LPA				IEAVAD0B
IEAVAD0C	ABDUMP - formatting trace data	IEAVAD0C	IEAVAD0C	8:T	8.36		LPA				IEAVAD0C
IEAVAD0D	ABDUMP - displaying subpools	IEAVAD0C	IEAVAD0D	8:T	8.37		LPA				IEAVAD0D
IEAVAD11	ABDUMP OUTPUT routine	IEAVAD11	IEAVAD11	8:T	8.38		LPA				IEAVAD11
IEAVAD21	ABDUMP OUTPUT5 routine	IEAVAD11	IEAVAD11	8:T	8.38		LPA				IEAVAD11
IEAVAD31	ABDUMP FORMAT routine	IEAVAD31	IEAVAD31	8:T	8.39		LPA				IEAVAD31
IEAVAD41	ABDUMP FORMAT01 routine	IEAVAD31	IEAVAD31	8:T	8.39		LPA				IEAVAD31
IEAVAD51	ABDUMP FORMAT20 routine	IEAVAD51	IEAVAD51	8:T	8.40		LPA				IEAVAD51
IEAVAD61	ABDUMP FORMAT22 routine	IEAVAD51	IEAVAD51	8:T	8.40		LPA				IEAVAD51
IEAVAD71	ABDUMP FORMET routine	IEAVAD71	IEAVAD71	8:T	8.41		LPA				IEAVAD71
IEAVAD81	ABDUMP PRINT routine	IEAVAD11	IEAVAD11	8:T	8.38		LPA				IEAVAD11
IEAVPTR0	GET/FREEPART	IEAVPRT0	IEAVPRT0	6:VSS	6.14		NUC				IEAVPRT0
IEAVTEST	TESTAUTH (branch entry point)	IEAVTEST	IEAVTEST	3:TS	3.20		NUC				IEAVTEST
IEAVVMSR	Contents supervision subroutine	IEAVLK00	IEAVLK00	4:CS	4.4		NUC				IEAVLK00
IEA0AB00	Mainline ABTERM processing	IEAVAB00	IEAVAB00	8:T	8.12		NUC				IEAVAB00
IEA0AB01	ABTERM (entry point used by some resident system routines)	IEAVAB00	IEAVAB00	8:T	8.11		NUC				IEAVAB00
IEA0DS	Dispatcher	IEAVNU00	IEAVNU00	3:TS	3.17	3-3	NUC				IEAVNU00
IEA0DS1	Dispatcher (page thrashing subroutine)	IEAVNU00	IEA0DS1	3:TS	3.17	3-3	NUC				IEAVNU00
IEA0DS02	Task Switch	IEAVNU00	IEAVNU00	3:TS	3.16		NUC				IEAVNU00
IEA0DS2	Dispatcher (page migration subroutine)	IEAVNU00	IEA0DS2	3:TS	3.17	3-3	NUC				IEAVNU00
IEA0EF00	Stage 2 Exit Effector	IEAVNU00	IEAVNU00	3:TS	3.12		NUC				IEAVNU00
IEA0EF03	Stage 3 Exit Effector	IEAVNU00	IEAVNU00	3:TS	3.13		NUC				IEAVNU00
IEA0EQ01	ENQ/DEQ Purge	IEAVENQ1	IGC048	3:TS			NUC				IEAVENQ1
IEA0PL00	ABTERM Prologue	IEAVAB00	IEAVAB00	8:T	8.11		LPA				IEAVAB00
IEA0PT01	POST (branch entry point from supervisor routines)	IEAVSY50	IGC001	3:TS	3.8		NUC				IEASY50
IEA0PT02	POST (branch entry point from supervisor routines)	IEAVSY50	IGC001	3:TS	3.8		NUC				IEASY50
IEA0TI00	Timer Second-Level Interruption Handler	IEAVTI00	IEAVTI00	7:TMS	7.5		NUC				IEAVTI00
IEA0VL00	Validity Check	IEAVNU00	IEAVNU00	3:TS	3.19		NUC				IEAVNU00
IEA0VL01	Validity Check	IEAVNU00	IEAVNU00	3:TS	3.19		NUC				IEAVNU00
IEA0VL01+4	Validity Check	IEAVNU00	IEAVNU00	3:TS	3.19		NUC				IEAVNU00
IEA0VL02	Validity Check	IEAVNU00	IEAVNU00	3:TS	3.19		NUC				IEAVNU00
IEA0XE00	Type-1 Exit	IEAVNU00	IEAVNU00	3:TS	3.15		NUC				IEAVNU00
IECPBLDL	BLDL	IECPFIND or IECPFND1	IGC018	4:CS			NUC	2	BLDL	18	IECPFIND or IECPFIND1

Entry Point	Routine	Module	Control Section	PLM References: Section	PLM References: Diagram	PLM References: Flowchart	Library	If SVC Routine: Type	If SVC Routine: Macro	If SVC Routine: SVC	Distr. Name
IECXTLER	Stage 3 Exit Effector	IEAVNU00	IEAVNU00	3:TS			NUC				IEAVNU00
IEWFBOSV	Program Fetch (entry point from the overlay supervisor)	IEWFETCH	IEWFETCH	4:CS	4.12		NUC				IEWFETCH
IEWMSEPT	Program Fetch (entry point from contents supervisor subroutines)	IEWFETCH	IEWFETCH	4:CS	4.12		NUC				IEWFETCH
IEWSZOVR	Overlay supervisor	IEWSWOVR	IEWSWOVR	4:CS	4.11		NUC				IEWSWCVR
IEXCP	EXCP Supervisor in the I/O supervisor	IEAQFX00 (IEAQFX & IECIOS macros)	IEAQFX00	4:CS			NUC	1	EXCP	0	IEAQFX00
IGC0001C	ABEND Initialization phase	IEAVTM00	IGC0001C	8:T	8.14		LPA	4	ABEND	13	IGC0001C
IGC00060	STA Services	IEAVSTA0	IGC00060	8:T	8.43		LPA	3	STAE	60	IGC00060
IGC001	WAIT	IEAVSY50	IGC001	3:TS	3.7		NUC	1	WAIT	1	IEAVSY50
IGC002	POST	IEAVSY50	IGC001	3:TS	3.8		NUC	2	POST	2	IEAVSY50
IGC002+6	POST (branch entry point from supervisor routines)	IEAVSY50	IGC001	3:TS	3.8		NUC	2	POST		IEAVSY50
IGC003	Exit	IEAVET00	IGC003	3:TS	3.14		NUC	1		3	IEAVET00
IGC004	GETMAIN (entry point for S-form macro instruction)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC	1	GETMAIN	4	IEAVGM00
IGC005	FREEMAIN (entry point for S-form macro instruction)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC	1	FREEMAIN	5	IEAVGM00
IGC006	LINK	IEAVLK00	IEAVLK00	4:CS	4.2		NUC	2	LINK	6	IEAVLK00
IGC007	XCTL	IEAVLK00	IEAVLK00	4:CS	4.8		NUC	2	XCTL	7	IEAVLK00
IGC008	LOAD	IEAVLK00	IEAVLK00	4:CS	4.7		NUC	2	LOAD	8	IEAVLK00
IGC009	DELETE	IEAVLK00	IEAVLK00	4:CS	4.9		NUC	2	DELETE	9	IEAVLK00
IGC010	GETMAIN/FREEMAIN (entry point for R-form macro instruction)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC	1	GETMAIN/ FREEMAIN	10	IEAVGM00
IGC0101C	ABEND Open phase	IEAVTM01	IGC0101C	8:T	8.18	LPA		4			IGC0101C
IGC011	TIME	IEAVRT01	IGC011	7:TMS	7.5		NUC	2	TIMER	11	IEAVRT01
IGC012	SYNCH	IEAVLK00	IEAVLK00	4:CS	4.6		NUC	2		12	IEAVLK00
IGC014	SPIE	IEAVTB00	IGC014	3:TS	3.6		NUC	2	SPIE	14	IEAVTB00
IGC0201C	ABEND Close phase	IEAVTM02	IGC0201C	8:T	8.20		LPA	4			IGC0201C
IGC0301C	ABEND Must-Complete phase	IEAVTM03	IGC0301C	8:T	8.22		LPA	4			IGC0301C
IGC037	Overlay supervisor	IEWSUOVR	IGC037	4:CS	4.11		NUC	3	SEGLD/ SEGWT	37	IEWSUCVR
IGC040	EXTRACT	IEAVTB00	IGC014	3:TS	3.4		NUC	2	EXTRACT	40	IEAVTB00
IGC040+8	EXTRACT (branch entry point)	IEAVTB00	IGC014	3:TS	3.4		NUC				IEAVTB00
IGC0401C	ABEND Close phase (entry point to forcefully close data sets)	IEAVTM04	IGC0401C	8:T	8.20		LPA	4			IGC0401C
IGC041	IDENTIFY	IEAVID00	IGC041	4:CS	4.10		LPA	3	IDENTIFY	41	IGC0004A
IGC042	ATTACH	IEAVAT00	IGC042	3:TS	3.2		NUC	2	ATTACH	42	IEAVAT00
IGC043	Stage 1 Exit Effector	IEAVEF00	IGC043	3:TS	3.11		NUC	1	CIRB	43	IEAVEF00
IGC043BR	Stage 1 Exit Effector (branch entry point)	IEAVEF00	IGC043	3:TS	3.11		NUC	1			IEAVEF00
IGC044	CHAP	IEAVCH00	IGC044	3:TS	3.3		NUC	2	CHAP	44	IEAVCH00
IGC044+12	CHAP (branch entry point)	IEAVCH00	IGC044	3:TS	3.3		NUC				IEAVCH00
IGC045	Overlay supervisor	IEASUOVR	IGC037	4:CS	4.11		NUC	3		45	IEASUCVR
IGC046	TTIMER	IEAVST00	IGC046	7:TMS	7.4		NUC	2	TTIMER	46	IEAVST00

Entry Point	Routine	Module	Control Section	PLM References: Section	PLM References: Dia-gram	PLM References: Flow-chart	Lib-rary	If SVC Routine: Type	If SVC Routine: Macro	If SVC Routine: SVC	Distr. Name
IGC044+12	CHAP (branch entry point)	IEAVCH00	IGC044	3:TS	3.3		NUC				IEAVCH00
IGC045	Overlay supervisor	IEASUOVR	IGC037	4:CS	4.11		NUC	3		45	IEASUOVR
IGC046	TTIMER	IEAVST00	IGC046	7:TMS	7.4		NUC	2	TTIMER	46	IEAVST00
IGC047	STIMER	IEAVST00	IGC046	7:TMS	7.3		NUC	2	STIMER	47	IEAVST00
IGC048	DEQ	IEAVENQ1	IGC048	3:TS	3.10	3-1	NUC	2	DEQ	48	IEAVENQ1
IGC056	ENQ	IEAVENQ1	IGC048	3:TS	3.9	3-1	NUC	2	ENQ	56	IEAVENQ1
IGC00060	STA Services	IEAVSTA0	IGC00060	8:T	8.43		LPA	3	STAE	60	IGC00060
IGC061	TTSAV	IGC0006A	IEGHRSAV	4:CS			SVC	3	TTSAV	61	IGC0006A
IGC062	DETACH	IEAVED02	IGC062	3:TS	3.5		NUC	2	DETACH	62	IEAVED02
IGC079	STATUS	IEAVSETS	IGC079	3:TS	3.18		NUC	1	STATUS	79	IEAVSETS
IGC07902	STATUS (branch entry point)	IEAVSETS	IGC079	3:TS	3.18		NUC	1			IEAVSETS
IGC107	MODESET	IEAVMODE	IGC107	3:TS	3.21		NUC	1	MODESET	107	IEAVMODE
IGC112	Release	IEAPCLR	IEAPCLR	5:PS	5.30		NUC	1	PGRLSE	112	IEAPCLR
IGC113	Page Service interface	IEAPSI	IEAPSI	5:PS	5.20		NUC	1	PGFIX PGFREE PGLOAD		IEAPSI
IGC115	Swap SVC interface	IEAPSSVC	IEAPSSVC	5:PS	5.61			1	SWAP	115	IEAPSSVC
IGC119	TESTAUTH (entry point to schedule retry routine)	IEAVTEST	IEAVTEST	3:TS	3.20		NUC	1	TESTAUTH	119	IEAVTEST
IGC1001C	ABEND Initial Housekeeping phase (alias entry point for ASIR routine)	IEAVTM00	IGC0001C	8:T	8.16		LPA	4			IGC0001C
IGC1101C	ABEND (recursion entry point for IEAVTM01)	IEAVTM01	IGC0101C	8:T	8.19		LPA	4			IGC0101C
IGC1201C	ABEND (recursion entry point for IEAVTM02)	IEAVTM02	IGC0201C	8:T	8.21		LPA	4			IGC0201C
IGC1301C	ABEND Critical Error phase (entry point to quiesce a job step)	IEAVTM03	IGC0301C	8:T	8.23		LPA	4			IGC0301C
IGC1401C	ABEND (recursion entry point for IEAVTM04)	IEAVTM04	IGC0401C	8:T	8.20		LPA	4			IGC0401C
IGC2001C	Mainline ABEND processing (alias entry point for MSGPHASE subroutine	IEAVTM00	IGC0001C	8:T	8.17		LPA	4			IGC0001C
IGC2101C	ABEND MSGPHASE subroutine	IEAVTM01	IGC0101C	8:T	8.17		LPA	4			IGC0101C
IGC2201C	ABEND Close phase (reentry point after forced close processing)	IEAVTM02	IGC0201C	8:T	8.20		LPA	4			IGC0201C
IGC2301C	ABEND Critical Error phase (entry point to handle invalid recursions)	IEAVTM03	IGC0301C	8:T	8.23		LPA	4			IGC0301C
IGC3301C	ABEND (recursion entry point for IEAVTM03)	IEAVTM03	IGC0301C	8:T	8.23		LPA	4			IGC0301C
LXPREFIX	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			SVC				IEAVLK00
LXREFER	Contents super-vision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
MAINLINE*	Mainline ABEND Processing	IEAVTM00	IGC0001C	8:T	8.17		LPA	4			IGC0001C

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

Entry Point	Routine	Module	Control Section	PLM References			Lib-rary	If SVC Routine			Distr. Name
				Section	Dia-gram	Flow-chart		Type	Macro	SVC	
MAJORCDE	IDENTIFY	IEAVID00	IEAVID00	4:CS	4.10		NUC				IEAVID00
MRELEASA	Release 4K Blocks	IEAVGM00	IEAVGM00	6:VSS	6.34		NUC				IEAVGM00
MRELEASE	Release 4K Blocks	IEAVGM00	IEAVGM00	6:VSS	6.34		NUC				IEAVGM00
NOSAVE	ATTACH (branch entry point from Dispatcher)	IEAVAT00	IGC042	3:TS			NUC				IEAVAT00
OVLALD02	SEGLD Processor	IEWSWOVR	IEWSWOVR	4:CS			LPA				IEWSWOVR
PAGEHOOK	Page Hook	IEAPTERM	IEAPTERM	5:PS	5.57		NUC				IEAPTERM
PGMFETCH	Contents supervision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
PHOENIX	System Task ABEND Recovery (STAR) Exit routine of the system error task	IEAVNU00	IEAVNU00	3:TS	3.22		NUC				IEAVNU00
PIDPFRET	Program Interruption Handler	IEAVNV00	IEAVNV00	2:IS	2.7		NUC				IEAVNV00
PIPIX	Program Interruption Handler				2.9						
PITY1REP	Program Interruption Handler				2.7						
PLUSCONT	Contents supervision subroutines	IEAVLK00	IEAVLK00	4:CS	4.2		NUC				IEAVLK00
PRECOM	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
QCALLOC	Quickcell allocation	IEAVGM00	IEAVGM00	6:VSS	6.13		NUC				IEAVGM00
QCBRANCH	Quickcell (branch entry point)	IEAVGM00	IEAVGM00	6:VSS	6.13		NUC				IEAVGM00
QCFREE	Free a Quickcell	IEAVGM00	IEAVGM00	6:VSS	6.35		NUC				IEAVGM00
QELOCATE	Locate FQE	IEAVGM00	IEAVGM00	6:VSS	6.32		NUC				IEAVGM00
RELOCATE	Contents supervision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
RERIG	Contents supervision subroutines	IEAVLK00 IEAVLK01	IEAVLK00 IEAVLK01	4:CS			NUC				IEAVLK00 IEAVLK01
RETHRED	Contents supervision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01
RMBRANCH	GETMAIN/FREEMAIN (branch entry point)	IEAVGM00	IEAVGM00	6:VSS	6.1		NUC				IEAVGM00
SATMAR	Contents supervision subroutines	IEAVLK01	IEAVLK01	4:CS	4.5		NUC				IEAVLK01
SPFREL	FREEMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.28		NUC				IEAVGM00
SPFRMAIN	Subpool FREEMAIN	IEAVGM00	IEAVGM00	6:VSS	6.26		NUC				IEAVGM00
SP253FR	FREEMAIN common	IEAVGM00	IEAVGM00	6:VSS	6.29		NUC				IEAVGM00
SRCHDIRC	Contents supervision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
SROUT	Swap-out Completion	IEAPSWAP	IEAPSWAP	5:PS	5.41		LINK				IEAPSWAP
STAE*	ABEND interface with ASIR	IEAVTM00	IGC0001C	8:T	8.15		LPA	4			IGC0001C
SUPRSTAR	System Task ABEND Recovery (STAR) Exit routine of the system error task	IEAVNU00	IEAVNU00	3:TS	3.22		NUC				IEAVNU00
THRUX	Contents supervision subroutines	IEAVLK00	IEAVLK00	4:CS			NUC				IEAVLK00
TRDISP	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
TREX	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
TRIO	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
TRPI	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
TRSIO	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.11		NUC				IEAVTRCE
TRSVC	Trace routine	IEAVTRCE	IEAVTRCE	2:IS	2.10		NUC				IEAVTRCE
TTRAN	Contents supervision subroutines	IEAVLK01	IEAVLK01	4:CS			NUC				IEAVLK01

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

The alphabetical list that follows correlates the descriptive name of a routine or subroutine to its entry-point name, and to the method-of-operation diagram and flowchart in which the routine or subroutine is described.

Name of Routine	Entry Point	Diagram	Chart
ABEND routine			
ABEND interface with ASIR	STAE*	8.15	
ABDUMP phase	DMPHASE*	8.19	
Close phase	IGC0201C	8.20	
to forcefully close open data sets	IGC0401C	8.20	
to purge resources	ENTRY2	8.20	
reentry point after forced close processing	IGC2201C	8.20	
Critical Error phase			
to handle invalid recursions	IGC2301C	8.23	
to quiesce a job step	IGC1301C	8.23	
Final Housekeeping phase	HOUSKEEP*	8.21	
Initial Housekeeping phase			
for ABEND/STA interface routine	IGC1001C	8.16	
for ABEND routine	BYSTAE*	8.16	
Initialization phase	IGC0001C	8.14	
Mainline ABEND processing	MAINLINE*	8.17	
for MSGPHASE subroutine	IGC2001C	8.17	
MSGPHASE subroutine	IGC2101C	8.17	
Must-complete phase	IGC0301C	8.22	
Open phase	IGC0101C	8.18	
Recursion phase	ABRECUR*	8.24	
Recursion entry points			
for module IEAVTM01	IGC1101C	8.19	
for module IEAVMT02	IGC1201C	8.21	
for module IEAVTM03	IGC3301C	8.23	
for module IEAVTM04	IGC1401C	8.20	
ABEND/STA Interface routine			
to schedule retry routine	IGC0C01C	8.46	
to schedule STA exit routine	IGC0B01C	8.44	
ABDUMP routines			
Displaying the Nucleus	IEAVAD0A	8.34	
Displaying Registers	IEAVAD0B	8.35	
Displaying the Save Area	IEAVAD07	8.32	
Displaying Subpools	IEAVAD0D	8.37	
Formatting Control Blocks I	IEAVAD03	8.29	
Formatting Control Blocks II	IEAVAD05	8.30	
Formatting the Header and PSW	IEAVAD02	8.28	
Formatting QCBs	IEAVAD06	8.31	
Formatting Trace Data	IEAVAD0C	8.36	
FORMAT routine	IEAVAD31	8.39	
FORMAT01 routine	IEAVAD41	8.39	
FORMAT20 routine	IEAVAD51	8.40	
FORMAT22 routine	IEAVAD61	8.40	
FORMET routine	IEAVAD71	8.41	
Interface routine	IEAVAD08	8.33	
Mainline processing	IEAVAD01	8.27	
OUTPUT routine	IEAVAD11	8.38	
OUTPUT5 routine	IEAVAD21	8.38	
PRINT routine	IEAVAD81	8.38	
Abnormal End Appendage	IEAPABNU	5.55	

* The ABEND routine has been divided into phases according to function. This is not a true entry point; it is the first label in the associated phase.

Name of Routine	Entry Point	Diagram	Chart
ABTERM routines			
Mainline ABTERM processing	IEA0AB00	8.12	
Prologue routine	IEA0PL00	8.11	
used by some resident system routines	IEA0AB01	8.11	
ATTACH	GETSAVE		
	IGC042	3.2	
	NOSAVE		
Auxiliary Storage Manager	IEAPAUXS	5.63	
	IEAPAUX2		
BLDL routine	IECPBLDL		
Build PCB	IEAPCB	5.49	
Channel-End Appendage	IEAPCEAP	5.55	
CHAP	IGC044	3.3	
	IGC044+12	3.3	
Contents supervision routines			
Entry points for search	CDADVANS	4.2	
	CDCONTRL (also called IEAQCS02)	4.2	
Entry points for scheduling	CDEPILOG (also called IEAQCS03)	4.2	
Entry point for ATTACH macro instruction	IEAQCS01	4.2	
Entry point for LINK macro instruction	IGC006	4.2	
Entry point for XCTL macro instruction	IGC007	4.8	
Entry point for LOAD macro instruction	IGC008	4.7	
Entry point for DELETE macro instruction	IGC009	4.9	
Entry point for SYNCH macro instruction	IGC012	4.6	
Create/Destory Page Table	IEAPTCD	5.34	
		5.35	
Delayed Post Queue Processor	IEAPSI2	5.25	
DELETE routine	IGC009	4.9	
DEQ	IGC048	3.10	3-1
DETACH	IGC062	3.5	
Dispatcher	IEA0DS	3.17	3-3
	IEA0DS1	3.17	3-3
	IEA0DS2	3.17	3-3
Dispatcher Release Suppression Interface	IEAPSI3	5.25	
End-of-Task (EOT) Mainline processing	EOT*	8.3	
Dequeue IQE subroutine	IEADQIQE	8.3	
Dequeue TCB subroutine	IEADQTCB	8.5	
Erase TCB subroutine	IEAQERA	8.4	
Purge TAXEs subroutine	IEAKJXP	8.6	
Purge Timer subroutine	IEAQPGTM	8.7	
Release Loaded Programs subroutine	IEAQABL	8.8	
Release Storage subroutine	IEAQSPET	8.9	
ENQ	IGC056	3.9	3-1
ENQ/DEQ Purge	IEA0EQ01		3-1
Exit	CDDESTRY	3.14	3-2
	CDEXIT	3.14	3-2
	CDHKEEP	3.14	3-2
	IGC003	3.14	3-2
External First-Level Interruption Handler	IEAQEX00	2.4	
EXTRACT	IGC040	3.3	
	IGC040+8	3.3	
Fast FIX	IEAPGSFF	5.23	
Find Page	IEAPFP	5.27	
	IEAPFP2		

* EOT is not a true entry point. It is, however, the label at which the Exit routine enters End-of-Task.

Name of Routine	Entry Point	Diagram	Chart
FIX/LOAD Asynchronous Completion	FIXLOAD2	5.24	
FIX Purge	IEAPFIXP	5.58	
FIX Quiesce	IEAPFIXQ	5.58	
FIX Restore	IEAPFIXR	5.59	
FQE Merge	IEAPSI5	5.26	
FREE a Quickcell	QCFREE	6.37	
FREEMAIN common	FMAINB	6.27	
	FMCOM	6.29	
	FMCOMMON	6.1,6.27	
	FMCOMM1	6.27	
	SPFREL	6.30	
	SP253FR	6.31	
FREEMAIN element	FELEMENT	6.27	
FREEMAIN list	FLISTADV	6.27	
FREEMAIN variable	FVARCHK	6.27	
FREEMAIN (branch entry)	FMAINB	6.27	
FREEMAIN (entry point for S-form macro instruction)	IGC005	6.1	
GETMAIN common	GMCOMMON	6.1,6.2	
	GMCOMM1	6.2	
	GMCOMM4	6.2	
	GMCOMM5	6.2	
	GMREPEAT	6.2	
GETMAIN list	GLIST	6.2	
GETMAIN list	GLIST1	6.2	
GETMAIN variable	GVAR		
GETMAIN (branch entry point)	GMBRANCH	6.1	
GETMAIN (entry point for S-form macro instruction)	IGC004	6.1	
GETMAIN/FREEMAIN (ABEND branch entry point)	ABBRANCH	6.1	
GETMAIN/FREEMAIN interface with ABTERM/ABEND	GERROR	6.26	
GETMAIN/FREEMAIN (branch entry point)	RMBRANCH	6.1	
GETMAIN/FREEMAIN (entry point for R-form macro instruction)	IGC010	6.1	
Get storage for control block	GETMAINB	6.4	
	GMBRETRY	6.4	
Get 4K or More	G4KSRCH	6.22	
GET/FREE LSQA Segment	IEAPLSQA	6.11,6.32	
GET/FREEPART	IEAVPRT0	6.14,6.33	
IDENTIFY routine	IGC041	4.10	
I/O First-Level Interruption Handler	DISMISS	2.1	
	IEAQIO00	2.1	
Locate FQE	QELOCATE	6.34	
Migration	IEAPMIGR	5.62	
MODESET routine	IEAMODBR	3.21	
	IGC107	3.21	
Monitor allocation of external page storage	GETAUX	6.23,6.24	
Move Page	IEAPMVPG	5.14	
	IEAPMVP2		
Move PCB	IEAPCBM	5.48	
Overlay supervisor			
Entry point for SEGLD or SEGQT macro instruction	IGC037	4.11	
Entry point for a branch or CALL instruction	IGC045	4.11	
Page Hook	PAGEHOOK	5.57	
Page I/O Post	IEAPIOP	5.28	
Page I/O Supervisor	IEAPIOS	5.44	
	IEAPIOS2		
	IEAPIOS3		
Page Replacement	IEAPRPLS	5.15	
Page Service interface	IGC113	5.20	
	IEAPSIBR		
	IEAPSIQR		

Name of Routine	Entry Point	Diagram	Chart
Paging Supervisor Error Recorder	IEAPSER	5.54	
	IEAPSER2		
PFTE Dequeue	IEAPRLS3	5.18	
PFTE Enqueue	IEAPRLS2	5.17	
POST routine	IEA0PT01	3.8	
	IEA0PT02	3.8	
	IGC002	3.8	
	IGC002+6	3.8	
Program-Check Interruption Extension	IEAPIX	5.46	
Program Interruption Handler	IEAQPK00	2.5	
	PIDPFRET	2.7	
	PIPIX	2.9	
	PITY1REP	2.7	
Program Fetch routine			
Entry point for the overlay supervisor (IEWSZOVR)	IEWFBOSV	4.12	
Entry point for contents supervision subroutines	IEWMSEPT	4.12	
Program Fetch Channel-end Appendage routine	FTCE01		
Program Fetch PCI Appendage routine	FTPCI01		
Purge CDEs	CDPURGE	6.9	
Queue Scanner	IEAPQS	5.53	
Quickcell Allocation	QALLOC	6.13	
Quickcell Initialization	IEAPQCI	6.12	
Quickcell (branch entry point)	QCBRANCH	6.1	
Real Storage Allocation	IEAPALOC	5.6	
Relate PCB	IEAPCBR	5.50	
Release	IGC112	5.30	
	IEAPCLR2	5.31	
	IEAPCLR3	5.32	
Release Queue Suppression	IEAPCRQS	5.51	
Release 4K Blocks	MRELEASE	6.36	
Reserve Replenish routine	IEAPRSRL	5.9	
Round Request length	CRNDLNTH	6.2,6.29	
Search FQE Queue	GFRECORE	6.7	
Search FBQE Queue	FBQSRCH	6.6	
	FBQSRCHA	6.6	
Second-exit Return routine	FIXLOAD3	5.24	
SEGLD processor routine			
Entry point for SVC 61 instruction	IGC061		
Entry point for the overlay supervisor (IEWSZOVR)	IEGHTOVL		
SMF Interface	FMSMFCRE	3.10	
	GMSMFCRE	3.10	
SPIE	IGC014	3.6	
SQA/LSQA allocation	IEAPSQA1	5.8	
	IEAPSQA2		
STA Services	IGC00060	8.43	
Stage 1 Exit Effector (CIRB)	IGC043	3.11	
	IGC043BR	3.11	
Stage 2 Exit Effector	IEA0EF00	3.12	
Stage 3 Exit Effector	ERFETCH	3.13	
	IEA0EF03	3.13	
	IECXTLER		
STATUS	IEATRSCN	3.18	
	IGC079	3.18	
	IGC07902	3.18	
STIMER	IGC047	7.3	
Storage not obtained	GNOTSATA	6.25	
	GNOTSATB	6.25	
	GNOTSATC	6.25	
Subpool FREEMAIN	SPFRMAIN	6.28	
Subpool Processing	CSPCHK	6.3	
SVC First-Level Interruption Handler	IEAQSC00	2.2	
SVC Second-Level Interruption Handler	IEAQTR00	2.3	
SVCDUMP	IEAVAD00	8.26	

Name of Routine	Entry Point	Diagram	Chart
SWA storage	IEAPGSWA	6.20	
SWAP	IEAPSWAP	5.36	
Swap-in Completion	IEAPIN1	5.38	
	IEAPIN3		
	IEAPIN4		
Swap-out Completion	SROUT	5.41	
Swap SVC interface	IGC115	5.61	
System Task ABEND Recorvery (STAR)	PHOENIX	3.22	
Exit Routine of system error task	SUPRSTAR	3.22	
Task Disable routine	IEAPDSBL	5.19	
Task Post Queue Processor	IEAPTQP	5.28	
Task Switch	IEA0DS02	3.16	
Termination interface	IEAPTERM	5.57	
TESTAUTH	IEAVTEST	3.20	
	IGC119	3.20	
Threshold-checking routine	IEAPCHTH	5.19	
	IGC119	3.20	
TIME	IGC011	7.2	
Timer Dequeue			
Entry point for canceling interval	IEAQTD00	7.7	
Entry point for saving interval	IEAQTD01	7.7	
Entry point for task switch	IEAQTD02	7.7	
Timer Enqueue	IEAQTE00	7.6	
Timer Second-Level Interruption Handler	IEA0TI00	7.5	
Trace routine	ECTOBC	2.10	
	PRECOM	2.10	
	TRDISP	2.10	
	TREX	2.10	
	TRIO	2.10	
	TRPI	2.10	
	TRSIO	2.11	
	TRSVC	2.10	
Translate Real to Virtual	IEAPTRV	5.47	
TTIMER	IGC046	7.4	
Type-1 Exit	IEA0XE00	3.15	
Update FQE	GFQEUPDT	6.8	
Validity Check	IEA0VL00	3.19	
	IEA0Vl01	3.19	
	IEA0VL01+4	3.19	
	IEA0VL02	3.19	
V=R Allocation	IEAPVRAL	5.10	
V=R Flush	IEAPVRFL	5.13	
V=R Region Free	IEAPVRFR	5.12	
V=R Release	IEAPVRS	5.11	
WAIT	IGC001	3.7	

The SVC directory correlates each SVC number with the name of the supervisor routine that performs the service requested by the SVC.

SVC Instruction	Name of Routine
SVC 1	WAIT
SVC 2	POST
SVC 3	Exit
SVC 4	GETMAIN
SVC 5	FREEMAIN
SVC 6	LINK
SVC 7	XCTL
SVC 8	LOAD
SVC 9	DELETE
SVC 10	GETMAIN/FREEMAIN
SVC 11	TIME
SVC 12	SYNCH
SVC 13	ABEND
SVC 14	SPIE
SVC 18	BLDL
SVC 37	Overlay supervisor (entry point for SEGLD and SEGWT macro instructions)
SVC 40	EXTRACT
SVC 41	IDENTIFY
SVC 42	ATTACH
SVC 43	Stage 1 Exit Effector (CIRB)
SVC 44	CHAP
SVC 46	TTIMER
SVC 47	STIMER
SVC 48	DEQ
SVC 51	SVCDUMP
SVC 56	ENQ
SVC 60	STA Services
SVC 62	DETACH
SVC 79	STATUS
SVC 107	MODESET
SVC 112	Release
SVC 113	Page Service Interface
SVC 115	Swap SVC Interface
SVC 119	TESTAUTH

SECTION 12

Data Areas

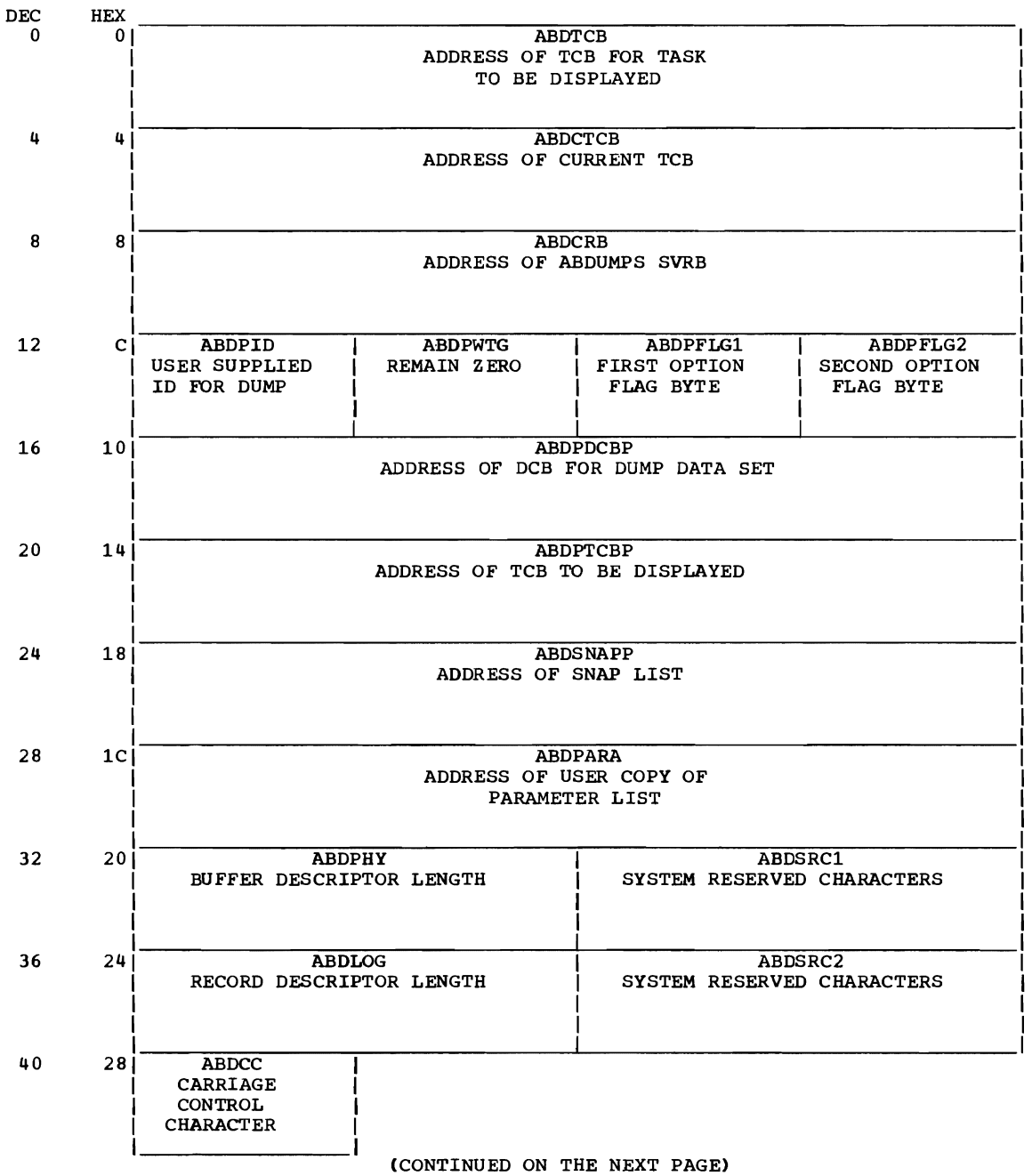
12

ABDAREA (ABDUMP Work Area)..... 737
ABDPL (Subcomponent Parameter List)..... 744
APGCE (Automatic Priority Group Control Element)..... 745
AQE (Allocated Queue Element)..... 746
CDE (Contents Directory Entry)..... 747
CPQE (Channel Program Queue Element)..... 749
CTRLD (Control and Relocation Dictionary Record)..... 752
CVT (Communication Vector Table)..... 754
DQE (Descriptor Queue Element)..... 770
ECB (Event Control Block)..... 771
ENTAB (Entry Table)..... 772
EXLNL (Note List)..... 773
FBQE (Free Block Queue Element)..... 774
FOE (Fix Ownership Element)..... 775
FQE (Free Queue Element)..... 776
FTWORK (Program Fetch Work Area)..... 777
GOVRFLB (Storage Queue Origin List)..... 785
INFOLIST (Type-1 SVC Message Table)..... 786
IQE (Interruption Queue Element)..... 788
LLE (Load List Element)..... 789
LPDE (Link Pack Directory Entry)..... 790
MB (Message Buffer)..... 792
PCB (Page Control Block)..... 795
PCBROOT (Root PCB)..... 797
PDITE (Page Device Information Table Entry)..... 799
PDTE (Page Device Table Entry)..... 810
PFTE (Page Frame Table Entry)..... 812
PTE (PGTE) (Page Table Entry)..... 814
PICA (Program Interruption Control Block)..... 815
PIE (Program Interruption Element)..... 816
PQE (Partition Queue Element)..... 818
PVT (Page Vector Table)..... 820
QCB (Queue Control Block)..... 834
QCDBLK (Quickcell Descriptor Block)..... 836
QEL (Queue Element)..... 837
RB (Request Block)..... 838
RQE (Request Queue Element)..... 844
SCB (STA Control Block)..... 845
SDWA (STA Diagnostic Work Area)..... 846
SEGTAB (Overlay Segment Table)..... 850
STE (SGTE) (Segment Table Entry)..... 852
SQ (Slot Queue)..... 853
SPCA (Swap Communications Area)..... 854
SPCT (Swap Control Table..... 858
SPQE (Subpool Queue Element)..... 863
SQE (Supervisor Queue Element)..... 864
SWAB (System Work Area Block)..... 865
SWAH (System Work Area Header)..... 866
TCB (Task Control Block)..... 867
TPC (Timer Data Area)..... 880
TQE (Timer Queue Element)..... 884
TSCE (Time Slice Control Element)..... 887
VALMAP+RRV (Validity Map)..... 888
VSL (Virtual Subarea List)..... 890
XPTE (External Page Table Entry)..... 891
XTLST (Extent List)..... 892

ABDAREA (ABDUMP Work Area)

Total size: 416 bytes
Created by: ABDUMP
Purpose: Contains pointers, buffers, flags, and counters to be used internally by the ABDUMP routines.

STORAGE MAP OF ABDAREA



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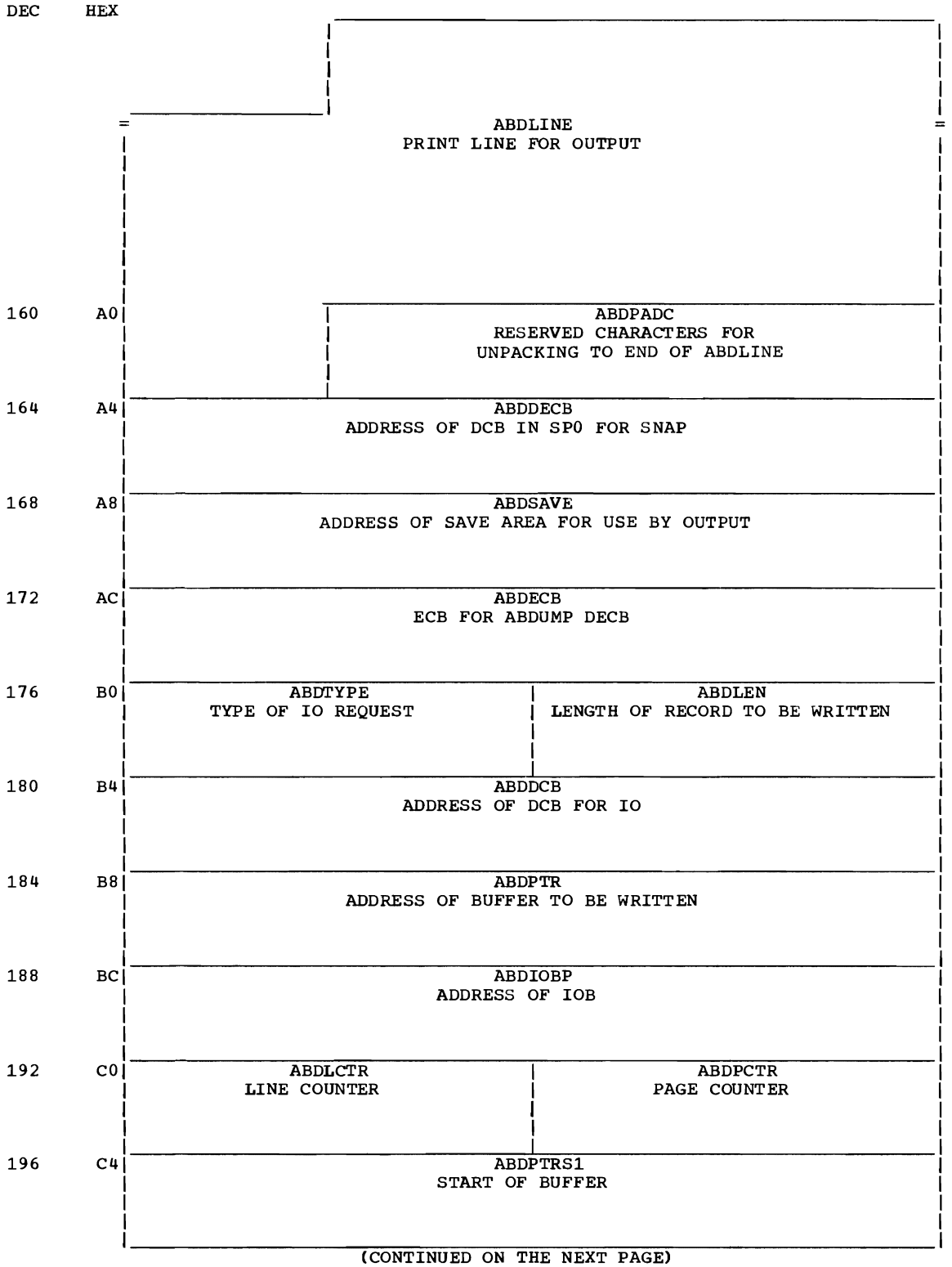

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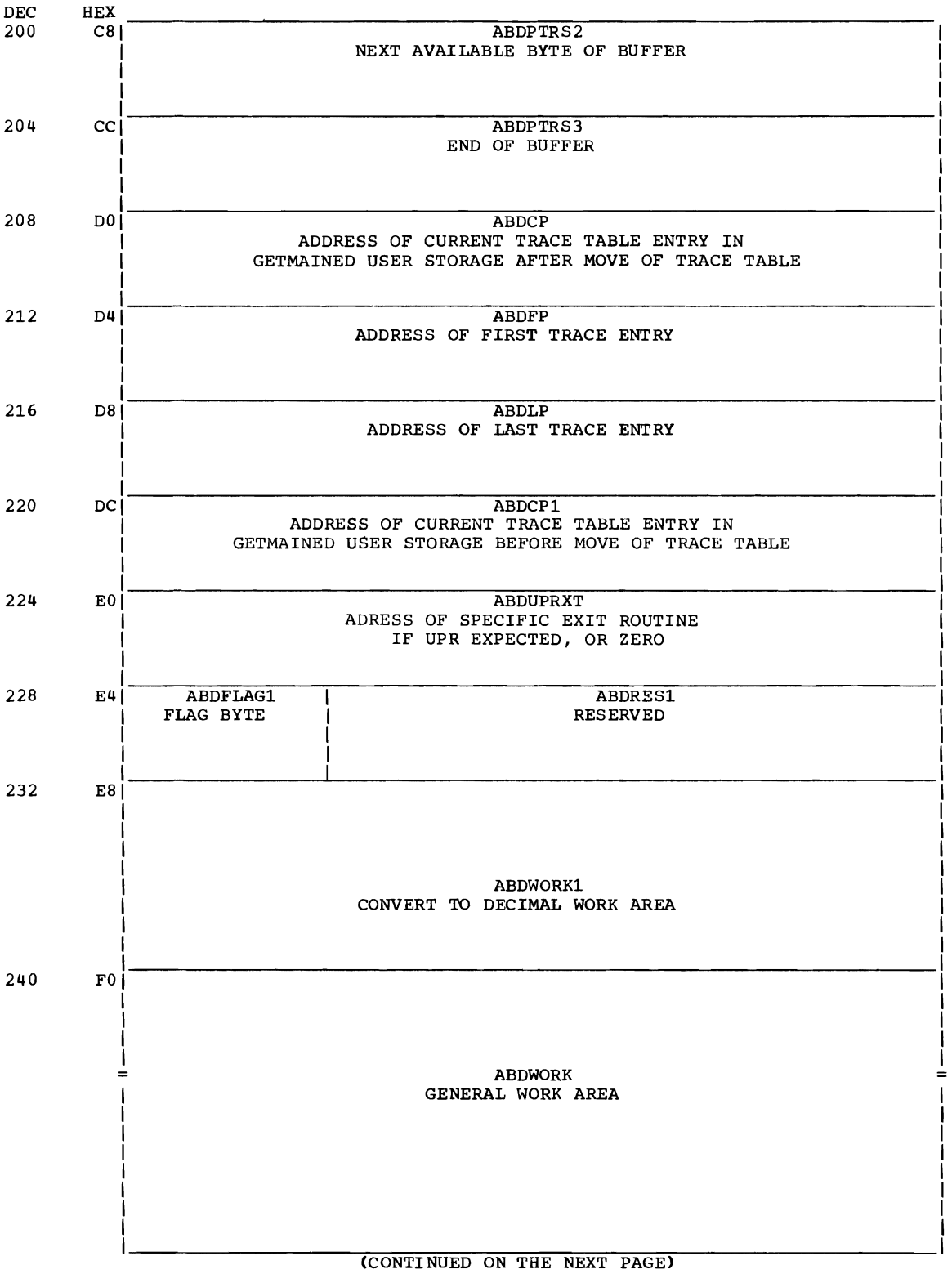

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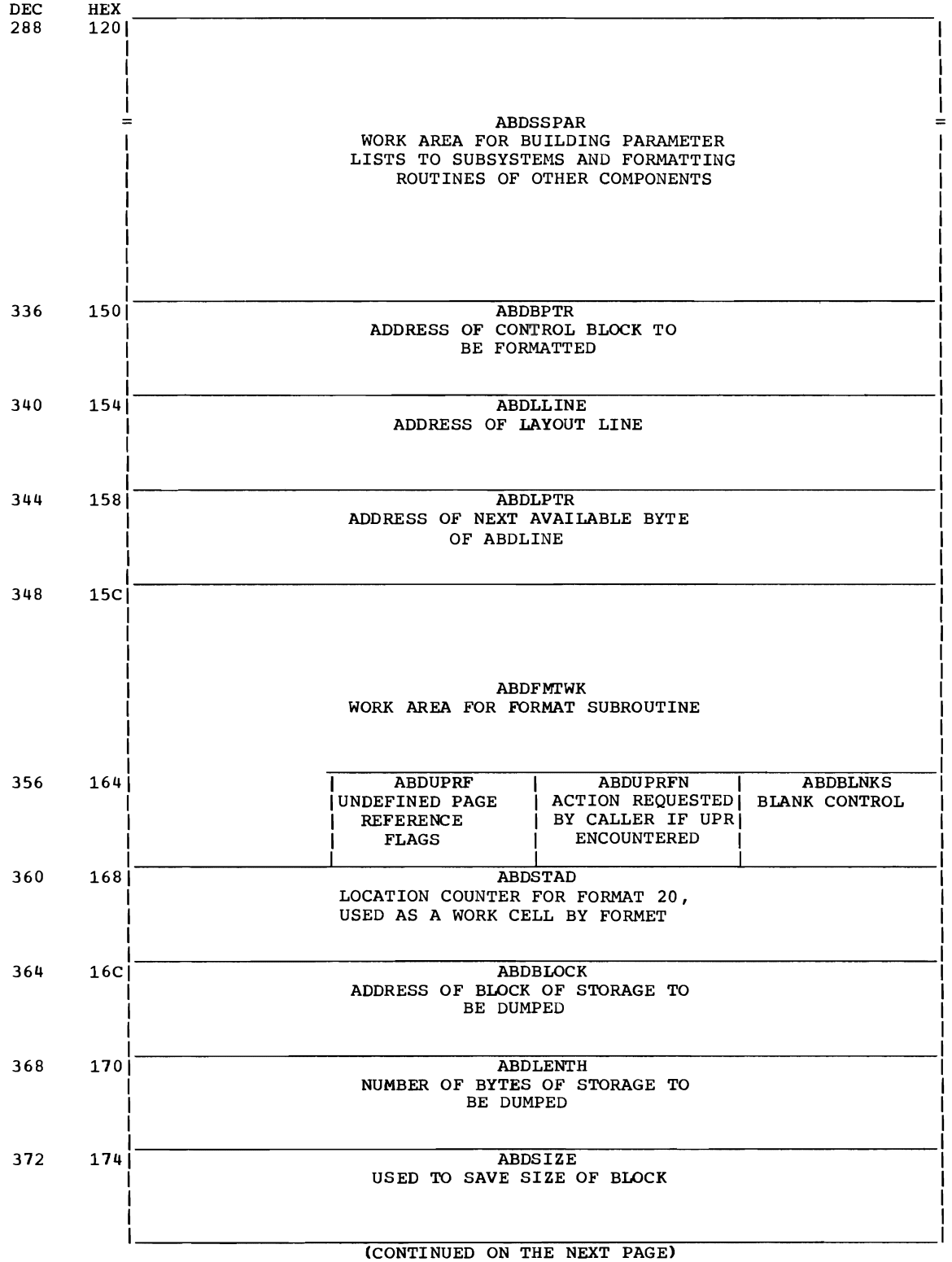

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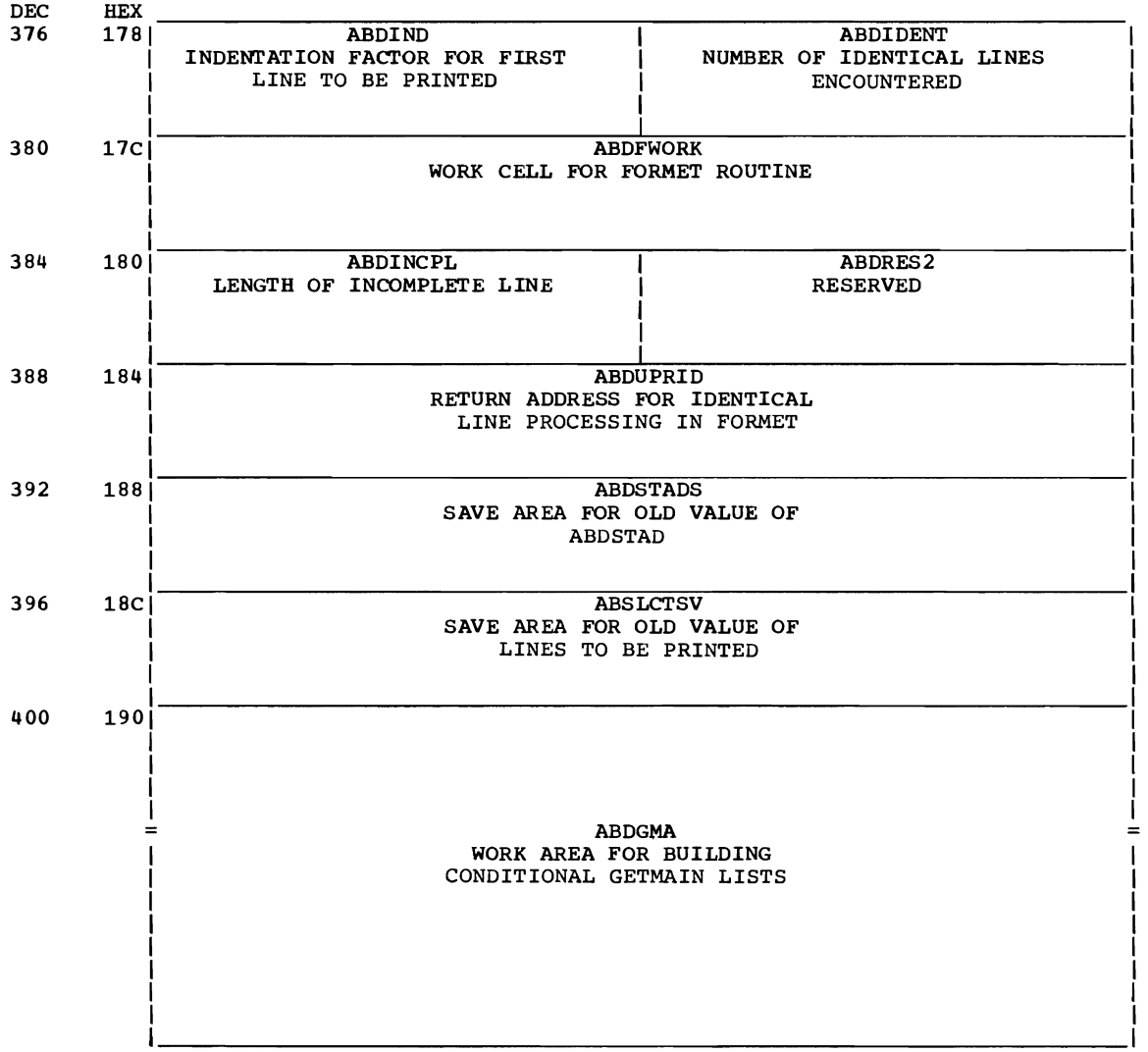

DISPLACEMENT LIST OF FIELDS IN ABDAREA

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ABDTCB	0041	0029	ABDLINE	0216	00D8	ABDLP
0004	0004	ABDCTCB	0161	00A1	ABDPADC	0220	00DC	ABDCP1
0008	0008	ABDCRB	0164	00A4	ABDDECB	0224	00E0	ABDUPRXT
0012	000C	ABDPID	0168	00A8	ABDSAVE	0228	00E4	ABDFLAG1
0012	000C	ABDPARMS	0172	00AC	ABDECB	0229	00E5	ABDRES1
0013	000D	ABDPWTG	0176	00B0	ABDTYPE	0232	00E8	ABDWORK1
0014	000E	ABDPFLG1	0178	00B2	ABDLEN	0240	00F0	ABDWORK
0015	000F	ABDPFLG2	0180	00B4	ABDDCB	0288	0120	ABDSSPAR
0016	0010	ABDPDCBP	0184	00B8	ABDPTR	0336	0150	ABDBPTR
0020	0014	ABDPTCBP	0188	00BC	ABDIOBP	0340	0154	ABDLLINE
0024	0018	ABDSNAPP	0192	00C0	ABDLCTR	0344	0158	ABDLPTR
0028	001C	ABDPARA	0194	00C2	ABDPCTR	0348	015C	ABDFMTWK
0032	0020	ABDPHY	0196	00C4	ABDPTRS1	0357	0165	ABDUPRF
0034	0022	ABDSRC1	0196	00C4	ABDPTRS	0358	0166	ABDUPRFN
0036	0024	ABDLOG	0200	00C8	ABDPTRS2	0359	0167	ABDBLNKS
0038	0026	ABDSRC2	0204	00CC	ABDPTRS3	0360	0168	ABDSTAD
0040	0028	ABDCC	0208	00D0	ABDCP	0364	016C	ABDBLOCK
0040	0028	ABDLINEA	0212	00D4	ABDFP	0368	0170	ABDLENTH

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0372	0174	ABDSIZE	0384	0180	ABDINCPL	0396	018C	ABSLCTSV
0376	0178	ABDIND	0386	0182	ABDRES2	0400	0190	ABDGMA
0378	017A	ABDIDENT	0388	0184	ABDUPRID			
0380	017C	ABDFWORK	0392	0188	ABDSTADS			

ALPHABETICAL LIST OF FIELDS IN ABDAREA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ABDBLNKS	0359	0167	ABDLENTH	0368	0170	ABDPWTG	0013	000D
ABDBLOCK	0364	016C	ABDLINE	0041	0029	ABDRES1	0229	00E5
ABDBPTR	0336	0150	ABDLINEA	0040	0028	ABDRES2	0386	0182
ABDCC	0040	0028	ABDLLINE	0340	0154	ABDSAVE	0168	00A8
ABDCP	0208	00D0	ABDLOG	0036	0024	ABDSIZE	0372	0174
ABDCP1	0220	00DC	ABDLP	0216	00D8	ABDSNAPP	0024	0018
ABDCRB	0008	0008	ABDLPTR	0344	0158	ABDSRC1	0034	0022
ABDCTCB	0004	0004	ABDPADC	0161	00A1	ABDSRC2	0038	0026
ABDDCB	0180	00B4	ABDPARA	0028	001C	ABDSSPAR	0288	0120
ABDDECB	0164	00A4	ABDPARMS	0012	000C	ABDSTAD	0360	0168
ABDECB	0172	00AC	ABDPCTR	0194	00C2	ABDSTADS	0392	0188
ABDFLAG1	0228	00E4	ABDPDCBP	0016	0010	ABDTCB	0000	0000
ABDFMTWK	0348	015C	ABDPFLG1	0014	000E	ABDTYPE	0176	00B0
ABDFP	0212	00D4	ABDPFLG2	0015	000F	ABDUPRF	0357	0165
ABDFWORK	0380	017C	ABDPHY	0032	0020	ABDUPRFN	0358	0166
ABDGMA	0400	0190	ABDPID	0012	000C	ABDUPRID	0388	0184
ABDIDENT	0378	017A	ABDPTCBP	0020	0014	ABDUPRXT	0224	00E0
ABDINCPL	0384	0180	ABDPTR	0184	00B8	ABDWORK	0240	00F0
ABDIND	0376	0178	ABDPTRS	0196	00C4	ABDWORK1	0232	00E8
ABDIOBP	0188	00BC	ABDPTRS1	0196	00C4	ABSLCTSV	0396	018C
ABDLCTR	0192	00C0	ABDPTRS2	0200	00C8			
ABDLEN	0178	00B2	ABDPTRS3	0204	00CC			

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
ABDBLNKS	BLANK CONTROL	ABDBLKN3	X'80'	IF ABDBLKN3=0 FORMAT01 PUTS 3 BLANKS BETWEEN FIELDS, IF ABDBLKN3=1, IT PUTS NUMBER OF BLANKS SPECIFIED IN BITS 4 TO 7 BETWEEN FIELDS
ABDFLAG1	FLAG BYTE	ABDQCBHD	X'80'	QUEUE CONTROL BLOCK HEADER HAS BEEN PRINTED
		ABDQCBMJ	X'40'	MAJOR QCB HAS BEEN PRINTED
		ABDQCBMN	X'20'	MINOR QCB HAS BEEN PRINTED
		ABDLSTHD	X'10'	THE STORAGE LIST HEADING LINE HAS BEEN PRINTED
		ABDSQSDM	X'08'	SQA HAS BEEN DUMPED
		ABDSVCHD	X'04'	THE SVC HEADING LINE HAS BEEN PRINTED
		ABDSPHD	X'02'	THE SUBPOOL HEADER HAS BEEN PRINTED
		ABDGTFLG	X'01'	ABDUMP HAS ISSUED HOOK TO SUSPEND GTF TRACE
ABDPFLG1	FIRST OPTION FLAG BYTE	APFABEND	X'80'	1=SNAP 0=ABEND
		APFTCB	X'40'	TCB ADDRESS IS SPECIFIED BY USER
		APFSUPDA	X'20'	DISPLAY ALL SUPERVISOR DATA
		APFTRACE	X'10'	DISPLAY TRACE INFORMATION
		APFNUC	X'08'	DISPLAY NUCLEUS
		APFSNAP	X'04'	A SNAP LIST IS GIVEN
		APFID	X'02'	AN ID IS GIVEN
		APFQCB	X'01'	DISPLAY QCBS AND QELS FOR TASK
ABDPFLG2	SECOND OPTION FLAG BYTE	APFSAVE	X'80'	DISPLAY SAVE AREA TRACE
		APFSAVE2	X'40'	DISPLAY HEADINGS ONLY
		APFREGS	X'20'	DISPLAY REGISTERS ON ENTRY TO SNAP OR ABEND
		APFLPA	X'10'	DISPLAY ACTIVE LPA MODULES

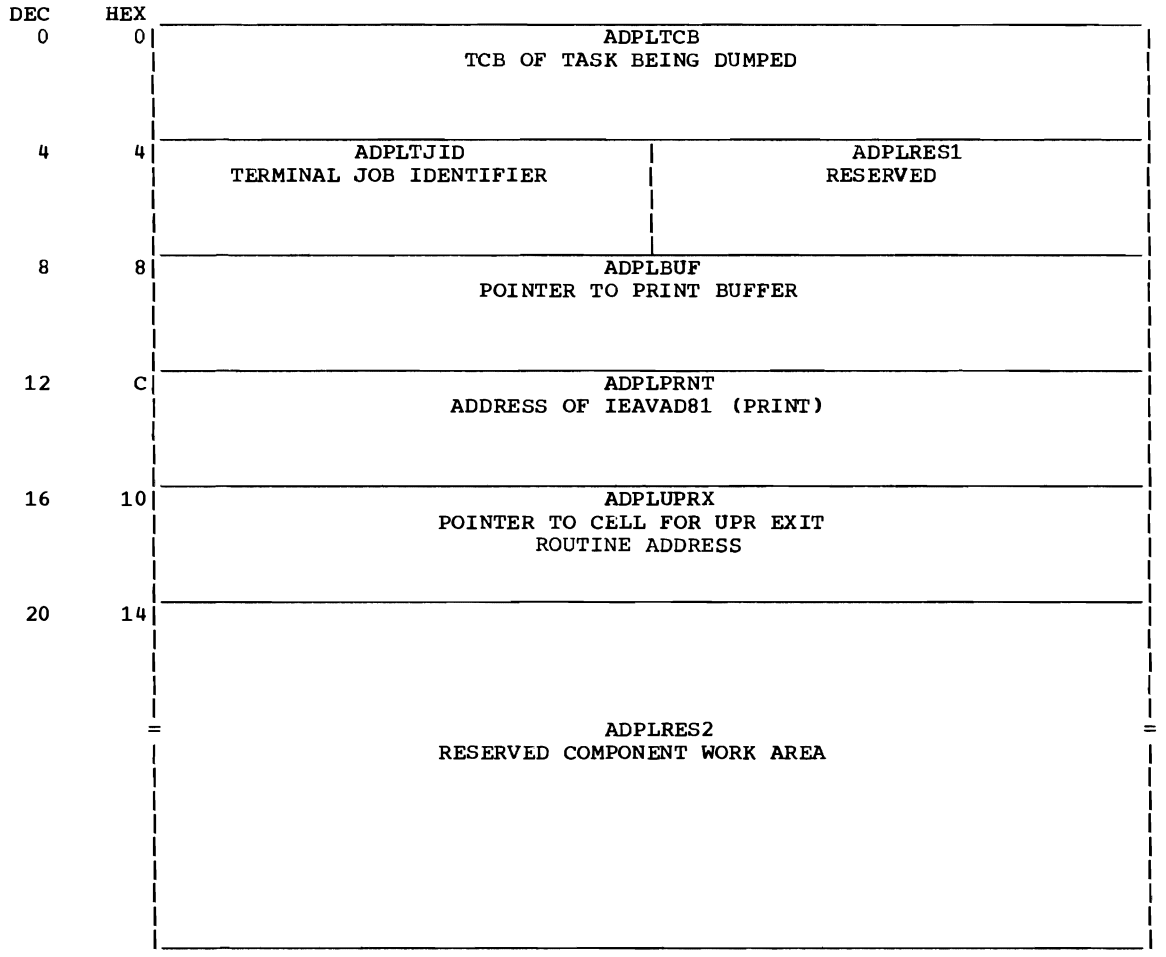
(CONTINUED FROM THE PREVIOUS PAGE)

FLAG	CONTAINS	MASK	VALUE	MEANS
		APFJPA	X'08'	DISPLAY JPA MODULES
		APFPSW	X'04'	DISPLAY PSW,ILC,INTERRUPT CODE
		APFSPALL	X'02'	DISPLAY ALL SUBPOOLS LESS THAN 128
ABDUPRF	UNDEFINED PAGE REFERENCE FLAGS	UPRFMAT	X'80'	UPR EXPECTED ON THIS CALL TO FORMAT OR FORMAT01 SUBROUTINE
		UPRFMET	X'40'	UPR EXPECTED ON THIS CALL TO FORMET
		UPRFMT20	X'20'	UPR EXPECTED ON THIS CALL TO FORMAT20 OR FORMAT22
ABDUPRFN	ACTION REQUESTED BY CALLER IF UPR ENCOUNTERED IN FORMET	ABDUPRPM	X'80'	PRINT A MESSAGE SPECIFYING LOCATIONS X TO Y UNDEFINED AND
		ABDUPRSL	X'40'	SKIP A LINE AND FIND THE NEXT VALID PAGE TO PRINT UNTIL COUNT RUNS OUT. CONTINUE WITH NEXT VALID PAGE UNTIL COUNT RUNS OUT. IF ABDUPRPM AND ABDUPRSL ARE ZERO, DISCONTINUE PRINTING AND RETURN.

ABDPL (Subcomponent Parameter List)

Total size: 36 bytes
Created by: ABDUMP
Purpose: Communications area for interface with the TCAM and TSO dump-formatting routines.

STORAGE MAP OF ABDPL



DISPLACEMENT LIST OF FIELDS IN ABDPL

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ADPLTCB	0008	0008	ADPLBUF	0020	0014	ADPLRES2
0004	0004	ADPLTJID	0012	000C	ADPLPRNT			
0006	0006	ADPLRES1	0016	0010	ADPLUPRX			

ALPHABETICAL LIST OF FIELDS IN ABDPL

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ADPLBUF	0008	0008	ADPLRES2	0020	0014	ADPLUPRX	0016	0010
ADPLPRNT	0012	000C	ADPLTCB	0000	0000			
ADPLRES1	0006	0006	ADPLTJID	0004	0004			

APGCE (Automatic Priority Group Control Element)

Total size: 24 bytes
Created by: Dispatcher
Purpose: Used to control task dispatching within the automatic priority group.
APGCE is located at IEAAPGCE within module IEAVNU00.

STORAGE MAP OF APG

DEC	HEX		
0	0	APGLLM	APGLLMA LOWER LIMIT OF TIME SLICE
4	4	APGULM	APGULMA UPPER LIMIT OF TIME SLICE
8	8	APGDELTA	APGDLTAA INCREMENT OR DECREMENT OF TIME SLICE
12	C	APGSLICE	APGSLICA CURRENT TIME SLICE LENGTH
16	10	APGRATIO RATIO OF TSENDS TO TSENDS + VOL WAITS	APGSTAT STATISTIC GATHERING INTERVAL
20	14	APGCPU COUNT OF TSENDS IN THIS INTERVAL	APGTOTAL SUM OF TSENDS + VOL WAITS THIS INTERVAL

DISPLACEMENT LIST OF FIELDS IN APG

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	APGLLM	0009	0009	APGDLTAA	0020	0014	APGCPU
0001	0001	APGLLMA	0012	000C	APGSLICE	0022	0016	APGTOTAL
0004	0004	APGULM	0013	000D	APGSLICA	0024	0018	APGEND
0005	0005	APGULMA	0016	0010	APGRATIO			
0008	0008	APGDELTA	0017	0011	APGSTAT			

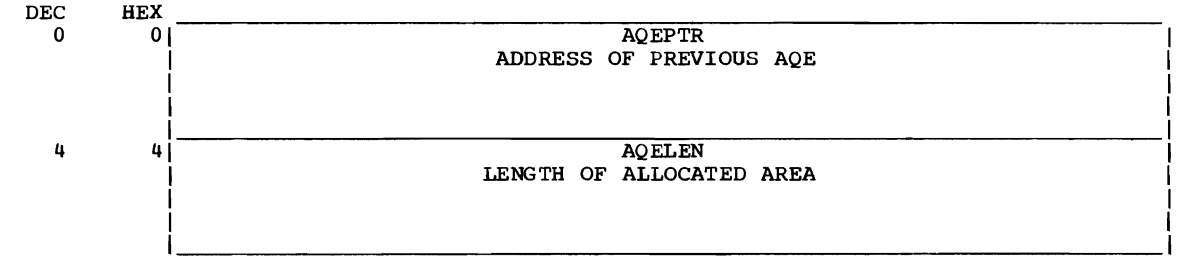
ALPHABETICAL LIST OF FIELDS IN APG

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
APGCPU	0020	0014	APGLLMA	0001	0001	APGTOTAL	0022	0016
APGDELTA	0008	0008	APGRATIO	0016	0010	APGULM	0004	0004
APGDLTAA	0009	0009	APGSLICA	0013	000D	APGULMA	0005	0005
APGEND	0024	0018	APGSLICE	0012	000C			
APGLLM	0000	0000	APGSTAT	0017	0011			

AQE (Allocated Queue Element)

Total size: 8 bytes
Created by: IEAVGM00
Purpose: The AQE (allocated queue element) relates allocated blocks of virtual storage in the SQA (system queue area) or an LSQA (local system queue area) with either the requesting task (if the subpool number is 233, 243, or 253) or with the job-step task (if the subpool number is 234, 244, or 254).

STORAGE MAP OF AQE



DISPLACEMENT LIST OF FIELDS IN AQE

DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	AQEPTR	0004	0004	AQELEN

ALPHABETICAL LIST OF FIELDS IN AQE

FIELD	DEC	HEX	FIELD	DEC	HEX
AQELEN	0004	0004	AQEPTR	0000	0000

CDE (Contents Directory Entry)

Total size: 24 bytes
Created by: ALIAS1, DETOLPAQ, IDENTIFY, or SATMAR routine
Purpose: Describes a requested module. Each area of storage occupied by a job step has a contents directory containing a record of each load module requested by the step. CDEs are the control blocks making up the contents directory, and each CDE contains the name of a load module and a pointer to its entry point. If the caller has specified an alias entry-point within a module, two CDEs will be created for that module. One, the major CDE, contains the main entry-point name; the other, the minor CDE, contains the alias entry-point name.

STORAGE MAP OF CDE

DEC	HEX		
0	0	CDATTR ATTRIBUTE FLAGS	CDCHAINA ADDRESS OF NEXT CDE IN QUEUE (EITHER JPAQ OR LPAQ)
4	4	CDROLL BITS 4-7 ARE USED TO EXTEND THE USE	CDRRBPA REENTERABLE MODULE: ADDRESS OF LAST RB; SERIALLY REUSEABLE MODULE: ADDRESS OF RB AT TOP OF WAITING QUEUE REQUESTED BY LOAD MACRO (RBPGM0)
8	8	CDNAME 8-BYTE NAME	
16	10	CDUSE VALUE CONTAINS THE MODULE USE COUNT WITH CDROLL	CDENTPTA MODULE'S RELOCATED ENTRY POINT ADDRESS
20	14	CDATTR2 SECOND ATTRIBUTE FIELD	CDXLMJPA EXTENT LIST ADDRESS OR MAJOR CDE ADDRESS

DISPLACEMENT LIST OF FIELDS IN CDE

DEC	HEX	FIELD
0000	0000	CDATTR
0000	0000	CDCHAIN
0001	0001	CDCHAINA
0004	0004	CDROLL
0004	0004	CDRRBP
0005	0005	CDRRBPA
0008	0008	CDNAME
0016	0010	CDUSE
0016	0010	CDENTPT
0017	0011	CDENTPTA
0020	0014	CDATTR2
0020	0014	CDXLMJP
0021	0015	CDXLMJPA

ALPHABETICAL LIST OF FIELDS IN CDENTRY

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CDATTR	0000	0000	CDENTPTA	0017	0011	CDUSE	0016	0010
CDATTR2	0020	0014	CDNAME	0008	0008	CDXLMJP	0020	0014
CDCHAIN	0000	0000	CDROLL	0004	0004	CDXLMJPA	0021	0015
CDCHAINA	0001	0001	CDRRBP	0004	0004			
CDENTPT	0016	0010	CDRRBPA	0005	0005			

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
CDATTR	ATTRIBUTE FLAGS	CDNIP	X'80'	MODULE LOADED BY NIP OR FIXED/MODIFIED LPA MODULE
		CDNIC	X'40'	MODULE IS IN PROCESS OF BEING LOADED
		CDREN	X'20'	MODULE IS REENTERABLE
		CDSER	X'10'	MODULE IS SERIALLY REUSABLE
		CDNFN	X'08'	MODULE IS NOT REUSABLE (NON-FUNCTIONAL)
		CDMIN	X'04'	THIS IS A MINOR CDE
		CDJPA	X'02'	MODULE IS IN JOB PACK AREA
		CDNLR	X'01'	MODULE IS NOT LOADABLE-ONLY
CDATTR2	SECOND ATTRIBUTE FIELD	CDSPZ	X'80'	MODULE IS IN SUBPOOL ZERO
		CDREL	X'40'	MODULE IS INACTIVE AND MAY BE RELEASED
		CDXLE	X'20'	EXTENT LIST HAS BEEN BUILT FOR MODULE.
		CDRLC	X'10'	THIS CDE CONTAINS A MINOR ENTRY POINT
		CDTSO	X'08'	THIS IS A TSLPA CDE ICB476
		CDOLY	X'04'	MODULE IS IN OVERLAY FORMAT
		CDERSV02	X'02'	RESERVED
		CDAUTH	X'01'	PROGRAM AUTHORIZATION FLAG

CPQE (Channel Program Queue Element)

Total size: 64 bytes
Created by: IEAVNP04
Purpose: Contains channel program for the paging supervisor.

STORAGE MAP OF CPQE

DEC	HEX			
0	0	CPQFLGS FLAG FIELD	CPQSINDX SLOT QUEUE INDEX FOR ACTIVE CHANNEL PROGRAM	CPQSEEKA FIRST TWO BYTES OF SEEK ADDRESS
4	4	CPQSP15 RESERVED	CPQSQBPT SLOT QUEUE BACKWARD POINTER	
8	8	CPQTCBPR PRIORITY OF TCB OR RECORD NUMBER	CPQPCBAD PCB ADDRESS FOR THIS REQUEST	
12	C	CPQSP2 RESERVED	CPQCPPTR ADDRESS OF CHANNEL PROGRAM TO WHICH THIS CHANNEL PROGRAM IS CHAINED	
16	10	CPQSEEKZ SEEK OPERATION CODE	CPQADSK ADDRESS OF SEEK ARGUMENT	
20	14	CPQSKFLG FLAG FIELD FOR SEEK CCW	CPQSP3 RESERVED	CPQSKCNT SEEK CCW COUNT FIELD
24	18	CPQSSNOP SET SECTOR OR NOP OPERATION CODE	CPQADSS SET SECTOR CCW ARGUMENT ADDRESS	
28	1C	CPQSSNPF FLAGS FOR NOP OR SET SECTOR CCW	CPQSP4 RESERVED	CPQSSNCT COUNT FOR SET SECTOR OR NOP CCW
32	20	CPQSCHOP SEARCH CCW OPERATION CODE	CPQADSCH SEARCH ARGUMENT ADDRESS	
36	24	CPQSCHFL SEARCH CCW FLAGS	CPQSP5 RESERVED	CPQSCHCT SEARCH CCW COUNT
40	28	CPQTICOP TIC CCW OPERATION CODE	CPQTICAD SEARCH CCW ADDRESS	

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DEC	HEX			
44	2C	CPQSP6 RESERVED		
48	30	CPQRWOP READ/WRITE CCW OPERATION CODE	CPQRWAD READ OR WRITE DATA ADDRESS	
52	34	CPQRWFLG READ/WRITE CCW FLAGS	CPQSP7 RESERVED	CPQRWCT READ/WRITE COUNT FIELD
56	38	CPQNPTCD NOP/TIC OPERATION CODE	CPQNPTCA ADDRESS FOR NEXT CHANNEL PROGRAM CHAIN	
60	3C	CPQNPFLG FLAGS FOR NOP/TIC CCW	CPQSP8 RESERVED	CPQNPCT COUNT FOR NOP/TIC CCW

DISPLACEMENT LIST OF FIELDS IN CPQE

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	CPQFLGS		0016	0010	CPQADSKF		0040	0028	CPQTICAF	
0000	0000	CPQSQFPF		0017	0011	CPQADSK		0041	0029	CPQTICAD	
0001	0001	CPQSINDX		0020	0014	CPQSKFLG		0044	002C	CPQSP6	
0001	0001	CPQSQFPT		0021	0015	CPQSP3		0048	0030	CPQRWOP	
0002	0002	CPQSEEKA		0022	0016	CPQSKCNT		0048	0030	CPQRWADF	
0003	0003	CPQNOPOP	(EQU)	0024	0018	CPQSSNOP		0049	0031	CPQRWAD	
0004	0004	CPQSP15		0024	0018	CPQADSSF		0052	0034	CPQRWFLG	
0004	0004	CPQSRCHA		0025	0019	CPQADSS		0053	0035	CPQSP7	
0005	0005	CPQWOP	(EQU)	0028	001C	CPQSSNPF		0054	0036	CPQRWCT	
0005	0005	CPQSQBPT		0029	001D	CPQSP4		0056	0038	CPQNPTCD	
0006	0006	CPQROP	(EQU)	0031	001F	CPQSSNCT		0056	0038	CPQNPTCF	
0008	0008	CPQTCOPA	(EQU)	0032	0020	CPQSCHOP		0057	0039	CPQNPTCA	
0008	0008	CPQTCBPR		0032	0020	CPQADSCF		0060	003C	CPQNPFLG	
0008	0008	CPQPCBAF		0033	0021	CPQADSCH		0061	003D	CPQSP8	
0009	0009	CPQPCBAD		0035	0023	CPQSSOP	(EQU)	0062	003E	CPQNPCT	
0012	000C	CPQSP2		0036	0024	CPQSCHFL		0064	0040	CPQLEN	(EQU)
0012	000C	CPQCCHH		0037	0025	CPQSP5		0064	0040	CPQEND	
0013	000D	CPQCPPTR		0038	0026	CPQSCHCT					
0016	0010	CPQSEEKZ		0040	0028	CPQTICOP					

ALPHABETICAL LIST OF FIELDS IN CPQE

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX
CPQADSCF	0032	0020		CPQNPTCD	0056	0038		CPQSINDX	0001	0001
CPQADSCH	0033	0021		CPQNPTCF	0056	0038		CPQSKCNT	0022	0016
CPQADSK	0017	0011		CPQPCBAD	0009	0009		CPQSKFLG	0020	0014
CPQADSKF	0016	0010		CPQPCBAF	0008	0008		CPQSP15	0004	0004
CPQADSS	0025	0019		CPQROP	0006	0006	(EQU)	CPQSP2	0012	000C
CPQADSSF	0024	0018		CPQRWAD	0049	0031		CPQSP3	0021	0015
CPQCCHH	0012	000C		CPQRWADF	0048	0030		CPQSP4	0029	001D
CPQCPPTR	0013	000D		CPQRWCT	0054	0036		CPQSP5	0037	0025
CPQEND	0064	0040		CPQRWFLG	0052	0034		CPQSP6	0044	002C
CPQFLGS	0000	0000		CPQRWOP	0048	0030		CPQSP7	0053	0035
CPQLEN	0064	0040	(EQU)	CPQSCHCT	0038	0026		CPQSP8	0061	003D
CPQNOPOP	0003	0003	(EQU)	CPQSCHFL	0036	0024		CPQSQBPT	0005	0005
CPQNPCT	0062	003E		CPQSCHOP	0032	0020		CPQSQFPF	0000	0000
CPQNPFLG	0060	003C		CPQSEEKA	0002	0002		CPQSQFPT	0001	0001
CPQNPTCA	0057	0039		CPQSEEKZ	0016	0010		CPQSRCHA	0004	0004

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FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
CPQSSNCT	0031	001F		CPQTCBPR	0008	0008		CPQTICOP	0040	0028	
CPQSSNOP	0024	0018		CPQTCOPA	0008	0008	(EQU)	CPQWOP	0005	0005	(EQU)
CPQSSNPF	0028	001C		CPQTICAD	0041	0029					
CPQSSOP	0035	0023	(EQU)	CPQTICAF	0040	0028					

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
CPQFLGS	FLAG FIELD	CPQUNAV	X'80'	CHANNEL PROGRAM AVAILABLE FLAG WHEN 1-CHANNEL PROGRAM UNAVAILABLE
		CPQUNAVM	X'7F'	MASK TO TURN OFF CPQUNAV
		CPQLAST	X'40'	LAST CHANNEL PROGRAM FLAG WHEN 1-LAST CHANNEL PROGRAM ON QUEUE
CPQRWFLG	READ/WRITE CCW FLAGS	CPQPCI	X'08'	PROGRAM CONTROLLED INTERRUPT FLAG
CPQSSNOP	SET SECTOR OR NOP OPERATION CODE	CPQSSOP	X'23'	SET SECTOR CODE
		CPQNOPOP	X'03'	NO OP CODE
CPQRWOP	READ/WRITE CCW OPERATION CODE	CPQWOP	X'05'	WRITE DATA CODE
		CPQROP	X'06'	READ DATA CODE
CPQNPTCD	NOP/TIC OPERATION CODE	CPQTCOPA	X'08'	TIC OP CODE

CTRLD (Control and Relocation Dictionary Record)

Total size: 24 bytes
Created by: Linkage editor
Purpose: The control and RLD record are used to adjust the value of address constants after Program Fetch reads a module into virtual storage.

STORAGE MAP OF CTRLD

DEC	HEX		
0	0	CTRLDTYP IDENTIFIES RECORD TYPE	CTRLDSPR SPARE AREA
4	4	CTCOUNT COUNT OF NUMBER OF BYTES OF CONTROL DATA IN RECORD	RLDCOUNT COUNT OF NUMBER OF BYTES OF RLD DATA
8	8	UNNAMED	
16	10	CTCESD CESD ENTRY NUMBER	CTSECLEN LENGTH OF CESD IN WHICH THE TEXT RECORD THAT FOLLOWS BELONGS
20	14	RLDFLAG DESCRIPTION OF ADDRESS CONSTANT	RLDADCON THE LOCATION OF THE ADCON

ORG CTRLDBAS

DEC	HEX		
16	10	RLDRELPT CESD ID OF THE VALUE OF THE SYMBOL USED TO COMPUTE VALUE OF THE ADDRESS CONSTANT	RLDPOSPT CESD ID OF THE FOLLOWING ADDRESS CONSTANT

DISPLACEMENT LIST OF FIELDS IN CTRLD

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	RLDBYTES (EQU)	0016	0010	RLDRELPT	0018	0012	CTSECLEN
0000	0000	CTRLDTYP	0016	0010	CVTPTR (EQU)	0020	0014	RLDFLAG
0001	0001	CTRLDSPR	0016	0010	CTCESD	0021	0015	RLDADCON
0004	0004	CTCOUNT	0016	0010	CTRLDBAS (EQU)			
0006	0006	RLDCOUNT	0018	0012	RLDPOSPT			

ALPHABETICAL LIST OF FIELDS IN CTRLD

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX
CTCESD	0016	0010		CTSECLEN	0018	0012		RLDFLAG	0020	0014
CTCOUNT	0004	0004		CVTPTR	0016	0010	(EQU)	RLDPOSPT	0018	0012
CTRLDBAS	0016	0010	(EQU)	RLDADCON	0021	0015		RLDRELPT	0016	0010
CTRLDSPR	0001	0001		RLDBYTES	0000	0000	(EQU)			
CTRLDTYP	0000	0000		RLDCOUNT	0006	0006				

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
CTRLDTYP	IDENTIFIES RECORD TYPE	CTREC	X'01'	CONTROL RECORD
		RLDREC	X'02'	RLD RECORD
		CTRLDREC	X'03'	COMBINATION CTL-RLD RECORD
		CTENDSEG	X'05'	CONTROL RECORD WHICH PRECEDES THE LAST TEXT RECORD OF A SEGMENT
		RLDENSEG	X'06'	RLD RECORD FOLLOWING THE LAST TEXT RECORD OF A SEGMENT
		CTENDMOD	X'0D'	CONTROL RECORD WHICH PRECEDES THE LAST TEXT RECORD OF A MODULE
		RLDENMOD	X'0E'	RLD RECORD WHICH FOLLOWS THE LAST TEXT RECORD OF A MODULE
		ENDSEG	X'04'	END OF SEGMENT INDICATOR
		ENDMOD	X'0C'	END OF MODULE INDICATOR
RLDFLAG	DESCRIPTION OF ADDRESS CONSTANT	RLDACON	X'00'	AN -A- TYPE ADCON
		RLDVCON	X'10'	A -V- TYPE ADCON
		RLDPSREG	X'20'	PSEUDO REG DISP VALUE
		RLDCPSRG	X'30'	CUM PSEUDO REG DISP VALUE
		RLDNOREL	X'80'	UNRESOLVED ADCON SYMBOL
		RLD2BYTE	X'04'	THE ADCON IS TWO BYTES LONG
		RLD3BYTE	X'08'	THE ADCON IS THREE BYTES LONG
		RLD4BYTE	X'0C'	THE ADCON IS FOUR BYTES LONG
		RLDPLUS	X'00'	RELOCATION IS POSITIVE
		RLDMINUS	X'02'	RELOCATION IS NEGATIVE
		RLDEQ	X'00'	NEXT RLD ITEM HAS A DIFFERENT SET OF CESD POINTERS. (RLDRECPT AND RLDPOSPT WILL FOLLOW RLDADCON)
		RLDNE	X'01'	NEXT RLD ITEM HAS THE SAME SET OF CESD POINTERS (RLDFLAG AND RLDADCON WILL FOLLOW NEXT FIELD, RLDADCON)

CVT (Communication Vector Table)

Total size: 732 bytes
Created by: NIP at system initialization
Purpose: Provides the means whereby nonresident routines may refer to information in the nucleus of the control program.
(CVT common extensions (CVTXTNT1 and CVTXTNT2) follow the storage map and tables for the main body of CVT below. CVTEXT1 contains the address of CVTXTNT1. CVTEXT2 contains the address of CVTXTNT2.)

STORAGE MAP OF CVT

DEC	HEX		
0	0	UNNAMED RESERVED	
248	F8	UNNAMED RESERVED	CVTMDL CPU MODEL NUMBER IN SIGNLESS PACKED DECIMAL
252	FC	CVTNUMB RELEASE NUMBER	CVTLEVL RELEASE LEVEL
256	100	CVTTCBP ADDR OF NEXT AND CURRENT TCB POINTER LIST	
260	104	CVT0EF00 ADDR OF ROUTINE TO SCHEDULE ASYNCHRONOUS EXITS	
264	108	CVTLINK ADDR OF SYS1.LINKLIB DCB	
268	10C	CVTJOB ADDR OF SYS1.JOBQE DCB	
272	110	CVTBUF ADDR OF BUFFER FOR RESIDENT CONSOLE INTERRUPTION ROUTINE	
276	114	CVTXAPG ADDR OF IOS APPENDAGE VECTOR TABLE	

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DEC	HEX		
280	118	CVT0VL00 ENTRY POINT ADDR OF ADDR VALIDITY CHECKING ROUTINE FOR SUPERVISOR	
284	11C	CVTPCNVT ENTRY POINT ADDR OF ROUTINE FOR CONVERTING RELATIVE TRACK ADDR TO ABSOLUTE	
288	120	CVTPRLTV ENTRY POINT ADDR OF ROUTINE FOR CONVERTING ABSOLUTE TRACK ADDR TO RELATIVE	
292	124	CVTILK1 ADDR OF CHANNEL AND CONTROL UNIT SECTION IN UCB LOOKUP TABLE	
296	128	CVTILK2 ADDR OF UCB HALFWORD ADDR LIST SECTION IN UCB LOOKUP TABLE	
300	12C	CVTXTLER ENTRY POINT ADDR TO XCTL ROUTINE FOR SYSTEM ERROR TRANSIENT AREA ROUTINES	
304	130	CVTSYSAD ADDR OF SYSTEM RESIDENCE VOLUME ENTRY IN UCB LOOKUP TABLE	
308	134	CVTBTERM ENTRY POINT ADDR OF ABTERM ROUTINE	
312	138	CVTDATE LOCAL DATE IN PACKED DECIMAL	
316	13C	CVTMSLT ADDR OF MASTER COMMON AREA	
320	140	CVTZDTAB ADDR OF I/O DEVICE CHARACTERISTIC TABLE	
324	144	CVTXITP ADDR OF ERROR INTERPRETER ROUTINE	
328	148	CVTFLGS1 FLAG BYTE ICB370	CVTDARA ADDR OF DCB FOR SYS1.DUMP DATA SET

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DEC	HEX		
332	14C	CVT0FN00 RESERVED	
336	150	CVTEXIT SVC 3 INSTRUCTION	CVTBRET BR 14 INSTRUCTION
340	154	CVTSVDCB ADDR OF SYS1.SVCLIB DCB	
344	158	CVTTPC ADDR OF TIMER SUPERVISOR WORK AREA	
348	15C	CVTPBLDL BALR ENTRY POINT ADDR OF BLDL	
352	160	CVTSJQ RESERVED	
356	164	CVTCUCB ADDR OF TABLE CONTAINING CONSOLE UCB ADDR	
360	168	CVTQTE00 RESERVED (NO INTERVAL TIMER)	
364	16C	CVTQTD00 RESERVED (NO INTERVAL TIMER)	
368	170	CVTSTB ADDR OF I/O DEVICE STATISTIC TABLE	
372	174	CVTDCB OPERATING SYSTEM	CVTDCBA ADDR OF DCB FOR SER SYS1.LOGREC
376	178	CVTIOQET ADDR OF I/O QUEUE ELEMENT TABLE	
380	17C	CVTIXAVL ADDR OF I/O SUPERVISOR FREELIST POINTER	

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DEC	HEX	
384	180	CVTNUCB LOWEST ADDRESS NOT IN NUCLEUS. ON PAGE BDY
388	184	CVTFBOSV ADDR OF PROGRAM FETCH ROUTINE
392	188	CVT0DS ENTRY POINT ADDR OF DISPATCHER
396	18C	CVTILCH ADDR OF LOGICAL CHANNEL WORD TABLE
400	190	CVTIERLC ADDR OF ASYNCHRONOUS EXIT QUEUE
404	194	CVTMSER ADDR OF MASTER SCHEDULER RESIDENT DATA AREA
408	198	CVT0PT01 BRANCH ENTRY POINT ADDR OF POST ROUTINE
412	19C	CVTRSV11 CVTTRMTB FIELD UNUSED
416	1A0	CVTHEAD ADDR OF FIRST TCB ON READY QUEUE
420	1A4	CVTMZ00 HIGHEST ADDRESS IN VIRTUAL STORAGE
424	1A8	CVT1EF00 ADDRESS OF ROUTINE THAT CREATES IRB'S FOR EXITS
428	1AC	CVTQOCR ADDR OF SEVENTH GFX PARM LIST WORD (0 IF GFX INACTIVE)
432	1B0	CVTQMWR ADDR OF QMGR COMMUNICATION DATA AREA

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DEC	HEX			
436	1B4	CVTSNCTR SERIAL DATA SET SEQUENCE NUMBER COUNTER	CVTOPTA MISCELLANEOUS FLAGS	CVTOPTB MISCELLANEOUS FLAGS
440	1B8	CVTQCDSR CDE SEARCH ROUTINE ADDR		
444	1BC	CVTQLPAQ ADDRESS OF POINTER TO MOST RECENT ENTRY ON LPA CDE QUEUE		
448	1C0	CVTRSV18 CVTMPCVT FIELD UNUSED		
452	1C4	CVTSMCA ADDR OF SYSTEM MGT CONTROL AREA		
456	1C8	CVTABEND ADDR OF SECONDARY CVT FOR ABEND IN EOT		
460	1CC	CVTUSER ONE FULL WORD FOR USE BY THE USER		
464	1D0	CVTMDLDS RESERVED FOR MODEL-DEPENDENT SUPPORT		
468	1D4	CVTQABST SVC 13 INSTRUCTION	CVTLNKSC SVC 6 INSTRUCTION	
472	1D8	CVTTSCE ADDR OF FIRST TIME SLICE CONTROL ELEMENT		
476	1DC	CVTPATCH ADDR OF PATCH AREA		
480	1E0	CVTRMS ADDR OF RMS VECTOR TABLE		
484	1E4	CVTTSFLG TIME SHARING FLAGS (TSO)	CVTTSCVB ADDR OF TIME SHARING CVT (TSO)	

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DEC	HEX		
488	1E8	CVT0SCR1 ADDR OF RPS SECTOR CONVERTER	
492	1EC	CVTGTFST GTF FLAG BYTES ICB312	CVTGTFA ADDRESS OF MONITOR CALL VECTOR TABLE
496	1F0	CVTTCMFG TCAM FLAGS	CVTAQAVB SAME AS CVTAQVT ABOVE PTR TO WORD CONTAINING ADDR OF TCAM ADDRESS VECTOR TABLE
500	1F4	CVTTSKS MAXIMAL NUMBER OF TCB ADDR TAB ENTRIES	CVTTAT ADDR OF TCB ADDR TAB (P0 TCB POINTER)
504	1F8	CVTSYST NUMBER OF SYSGENED TCB ADDR TAB ENTRIES	UNNAMED RESERVED
508	1FC	CVTEXT1 ADRESS OF COMMON EXTENSION	
512	200	CVTCBSP ADDRESS OF ACCESS METHOD CONTROL BLOCK STRUCTURE (IF AN ACCESS METHOD MASTER CATALOG IS OPEN AND AVAILABLE)	
516	204	CVTRSV35 RESERVED	CVTPURGA ADDRESS OF SUBSYSTEM PURGE ROUTINE ICB330
520	208	CVTAMFF RESERVED FOR ACCESS METHOD FLAGS ICB436	
524	20C	CVTRSV36 RESERVED	CVTQMSGA ADDRESS OF INFORMATION TO BE PRINTED BY ABEND
528	210	CVTRSV37 RESERVED	CVTDMSRA ADDRESS OF OPEN/CLOSE/EOV SUPERVISORY ROUTINE
532	214	CVTRSV38 RESERVED	
536	218	CVTRSV39 RESERVED	

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DEC	HEX		
540	21C	CVTREAL ADDRESS OF THE VIRTUAL STORAGE BYTE FOLLOWING THE HIGHEST VIRTUAL-REAL STORAGE ADDR	
544	220	CVTPTRV ADDRESS OF PAGING SUPERVISOR GENERAL ROUTINE TO TRANSLATE REAL ADDRESSES TO VIRTUAL	
548	224	CVTMODE ADDRESS OF ROUTINE TO CHANGE SYSTEM MASK	
552	228	CVTJESCT ADDRESS OF JES CONTROL TABLE ICB342	
556	22C	UNNAMED RESERVED (WAS CVTJEPS) (OS/VS2) YM2702	
560	230	CVTTZ DIFFERENCE BETWEEN LOCAL TIME AND GREENWICH MEAN TIME	
564	234	CVTMCHPR ADDRESS OF MACHINE CHECK PARAMETER LIST	
568	238	CVTEORM HIGHEST REAL ADDRESS IN MAIN STORAGE	
572	23C	CVTERPV POINTER TO SUBROUTINE IN IOS TO CONVERT CCW DATA ADDRESSES TO VIRTUAL ADDRESSES	
576	240	CVTINTLA ADDRESS OF AREA CONTAINING INTERVAL LENGTH AT WHICH I/O LOAD BALANCING EXCP COUNTS AND RATES ARE COMPUTED	
580	244	CVTRSV40 RESERVED	CVTAPFA ADDRESS OF BRANCH ENTRY POINT IN APF ROUTINE
584	248	CVTRSV41 RESERVED	CVTEXT2A ADDRESS OF COMMON SECTION
588	24C	CVTRSV42 RESERVED	CVTHJESA ADDRESS OF OPTIONAL JOB ENTRY SYSTEM

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DEC	HEX		
592	250	CVTRSV43 RESERVED	CVTRSV44 RESERVED
596	254	CVTRSV45 RESERVED	
600	258	CVTRSV46 RESERVED	
604	25C	CVTRSVA2 RESERVED	
608	260	CVTLPDSR ADDRESS OF LPA DIRECTORY SEARCH ROUTINE	
612	264	CVTPVTP ADDRESS OF PAGE VECTOR TABLE	
616	268	CVTDIRST FLAG BYTE	CVTLPDIR ADDRESS OF LPA DIRECTORY. ON PAGE BDY
620	26C	CVTPAGE1 ADDRESS OF DCB FOR PRIMARY PAGING DATA SET	
624	270	CVTPGSUP ADDRESS OF TCB FOR PAGING SUPERVISOR	
628	274	CVTSYLK SUPERVISOR LOCK. ONLY ENABLED TASKS MAY BE DISP.	CVTSLID IDENTITY OF TCB CAUSING SUPERVISOR LOCK BYTE (CVTSYLK) TO BE SET OR TCB THAT SECOND EXIT PROCESSING IS FOR WHEN CVTSEIC=1
632	278	CVTSEFLG SECOND EXIT FLAGS	CVTSERA SECOND EXIT ROUTINE ADDRESS THAT WILL BE BRANCHED TO BY ABTERM PROLOGUE IF THE SECOND EXIT ROUTINE GETS A PROGRAM CHECK
636	27C	CVTSEGA VIRTUAL ADDRESS OF USER SEGMENT TABLE	
640	280	CVTSEGB VIRTUAL ADDRESS OF SYSTEM SEGMENT TABLE	

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DEC	HEX				
644	284	CVTSEGLC LENGTH IN 64-BYTE UNITS OF USER SEGMENT TABLE	CVTSEGCA REAL ADDRESS OF USER SEGMENT TABLE		
648	288	CVTSEGLD LENGTH IN 64-BYTE UNITS OF SYSTEM SEGMENT TABLE	CVTSEGDA REAL ADDRESS OF SYSTEM SEGMENT TABLE		
652	28C	CVTRSV77 RESERVED	CVTSPVLK NO. OF TASKS THAT HAVE TERMINATED WHILE OWNING CVTSYLK	CVTCTLFG SYSTEM CONTROL FLAGS	CVTAPG DISPATCHING PRIORITY OF APG.
656	290	UNNAMED CVTTRACE BR 11-SET BY NIP. REG 10 FOR TRACE, REG 11 FOR NO TRACE		UNNAMED CVTTRACE BR 11-SUPPRESS TRACE BY SETTING CC MASK TO 0 IN CVTTRACE	
660	294	CVTRSCN ADDRESS OF ROUTINE TO SCAN TCB TREE			
664	298	CVTTAS ADDRESS OF ROUTINE TO TRANSFER ADDRESS SPACE			
668	29C	CVTPVALD ADDRESS OF ROUTINE TO CHECK ADDRESSES AS BEING IN A REGION			
672	2A0	CVTSHRVM LOWEST ADDRESS OF SHARED VIRTUAL STORAGE AREA. BEGINNING OF LPA DIRECTORY OR LPA UPDATE AREA			
676	2A4	CVT0VL01 ENTRY POINT ADDRESS OF VALIDITY CHECK ROUTINE			
680	2A8	CVTPFIXQ BRANCH ENTRY TO IEAPFIXQ, THE FIX-QUIESCE ROUTINE USED BY TSO BEFORE SWAP TO FREE ALL SVC FIXES			
684	2AC	CVTPFIXR BRANCH ENTRY TO IEAPFIXR, THE FIX-RESTORE ROUTINE USED BY TSO AFTER SWAP			
688	2B0	CVTPFIXP BRANCH ENTRY TO IEAPFIX, THE FIX-PURGE ROUTINE USED BY STA, ABEND, ET. AL.,TO GET RID OF OUTSTANDING FIX REQUESTS			
692	2B4	CVTPTCD BRANCH ENTRY TO IEAPTCD, THE PAGE-TABLE-CREATE-DESTROY ROUTINE USED BY TSO LOGOFF IN DOING A PSEUDO-FREEPART			

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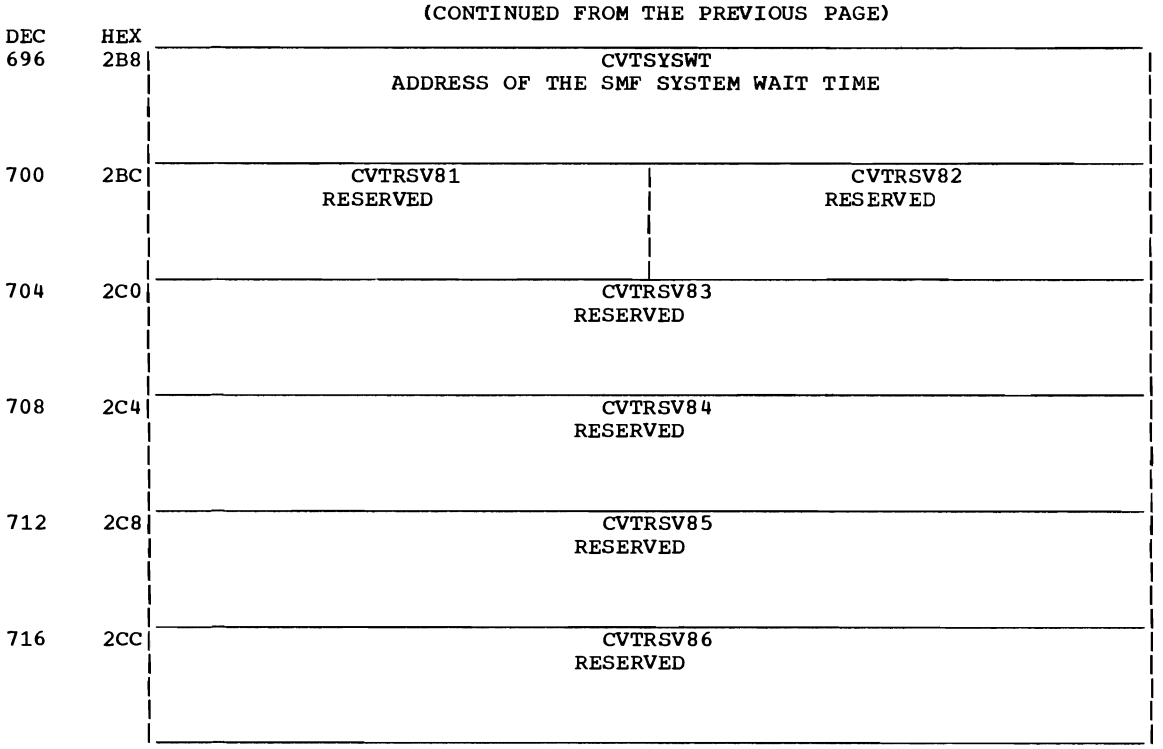

DISPLACEMENT LIST OF FIELDS IN CVT

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0018	0012	CVT8AOS2 (EQU)	0360	0168	CVTQTE00	0484	01E4	CVTTSFLG
0250	00FA	CVTMDL	0364	016C	CVTQTD00	0484	01E4	CVTTSCVT
0252	00FC	CVTNUMB	0368	0170	CVTSTB	0485	01E5	CVTTSCVB
0252	00FC	CVTRELNO	0372	0174	CVTDCB	0488	01E8	CVT0SCR1
0254	00FE	CVTLEVL	0373	0175	CVTDCBA	0492	01EC	CVTGTFST
0256	0100	CVTTCBP	0376	0178	CVTIOQET	0492	01EC	CVTGTF
0256	0100	CVTMAP (EQU)	0380	017C	CVTIXAVL	0493	01ED	CVTGTFA
0260	0104	CVT0EF00	0384	0180	CVTNUCB	0496	01F0	CVTTCMFG
0264	0108	CVTLINK	0388	0184	CVTFBOSV	0496	01F0	CVTAQAVT
0268	010C	CVTJOB	0392	0188	CVT0DS	0497	01F1	CVTAQAVB
0272	0110	CVTBUF	0396	018C	CVTILCH	0500	01F4	CVTTSKS
0276	0114	CVTXAPG	0400	0190	CVTIERLC	0500	01F4	CVTTATA
0280	0118	CVT0VL00	0404	0194	CVTMSER	0501	01F5	CVTTAT
0284	011C	CVTPCNVT	0408	0198	CVT0PT01	0504	01F8	CVTSYST
0288	0120	CVTPRLTV	0412	019C	CVTRSV11	0508	01FC	CVTEXT1
0292	0124	CVTILK1	0416	01A0	CVTHEAD	0512	0200	CVTCBSP
0296	0128	CVTILK2	0420	01A4	CVTMZ00	0516	0204	CVTRSV35
0300	012C	CVTXTLER	0424	01A8	CVT1EF00	0516	0204	CVTPURG
0304	0130	CVTSYSAD	0428	01AC	CVTQOCR	0517	0205	CVTPURGA
0308	0134	CVTBTERM	0432	01B0	CVTQMWR	0520	0208	CVTAMFF
0312	0138	CVTDATE	0436	01B4	CVTSNCTR	0524	020C	CVTRSV36
0316	013C	CVTMSLT	0438	01B6	CVTOPTA	0524	020C	CVTQMSG
0320	0140	CVTZDTAB	0439	01B7	CVTOPTB	0525	020D	CVTQMSGA
0324	0144	CVTXITP	0440	01B8	CVTQCDSR	0528	0210	CVTRSV37
0328	0148	CVTFLGS1	0444	01BC	CVTQLPAQ	0528	0210	CVTDMSR
0328	0148	CVTDAR	0448	01C0	CVTRSV18	0529	0211	CVTDMSRA
0329	0149	CVTDARA	0452	01C4	CVTSMCA	0532	0214	CVTRSV38
0332	014C	CVT0FN00	0456	01C8	CVTABEND	0536	0218	CVTRSV39
0340	0154	CVTSVDCB	0460	01CC	CVTUSER	0540	021C	CVTREAL
0344	0158	CVTTPC	0464	01D0	CVTMDLDS	0544	0220	CVTPTRV
0348	015C	CVTPBLDL	0472	01D8	CVTTSCE	0548	0224	CVTMODE
0352	0160	CVTSJQ	0476	01DC	CVTPATCH	0552	0228	CVTJESCT
0356	0164	CVTCUCB	0480	01E0	CVTRMS	0560	0230	CVTTZ

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DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0564	0234	CVTMCHPR	0616	0268	CVTDIRST	0652	028C	CVTRSV77
0568	0238	CVTEORM	0616	0268	CVTLPDIA	0653	028D	CVTSPVLK
0572	023C	CVTERPV	0617	0269	CVTLPDIR	0654	028E	CVTCTLFG
0576	0240	CVTINTLA	0620	026C	CVTPAGE1	0655	028F	CVTAPG
0580	0244	CVTRSV40	0624	0270	CVTPGSUP	0660	0294	CVTRSCN
0580	0244	CVTAPF	0628	0274	CVTSYLK	0664	0298	CVTTAS
0581	0245	CVTAPFA	0628	0274	CVTSLIDA	0668	029C	CVTPVALD
0584	0248	CVTRSV41	0629	0275	CVTSLID	0672	02A0	CVTSHRVM
0584	0248	CVTEXT2	0632	0278	CVTSEFLG	0676	02A4	CVT0VL01
0585	0249	CVTEXT2A	0632	0278	CVTSER	0680	02A8	CVTPFIXQ
0588	024C	CVTRSV42	0633	0279	CVTSERA	0684	02AC	CVTPFIXR
0588	024C	CVTHJES	0636	027C	CVTSEGA	0688	02B0	CVTPFIXP
0589	024D	CVTHJESA	0636	027C	CVTSEG	0692	02B4	CVTPTCD
0592	0250	CVTRSV43	0640	0280	CVTSEGB	0696	02B8	CVTSYSWT
0594	0252	CVTRSV44	0644	0284	CVTSEGLC	0700	02BC	CVTRSV81
0596	0254	CVTRSV45	0644	0284	CVTSEGC	0702	02BE	CVTRSV82
0600	0258	CVTRSV46	0645	0285	CVTSEGCA	0704	02C0	CVTRSV83
0604	025C	CVTRSVA2	0648	0288	CVTSEGLD	0708	02C4	CVTRSV84
0608	0260	CVTLPDSR	0648	0288	CVTSEGD	0712	02C8	CVTRSV85
0612	0264	CVTPVTP	0649	0289	CVTSEGDA	0716	02CC	CVTRSV86

ALPHABETICAL LIST OF FIELDS IN CVT

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
CVTABEND	0456	01C8	CVTLPDIR	0617	0269		CVTRSV36	0524	020C
CVTAMFF	0520	0208	CVTLPDSR	0608	0260		CVTRSV37	0528	0210
CVTAPF	0580	0244	CVTMAP	0256	0100	(EQU)	CVTRSV38	0532	0214
CVTAPFA	0581	0245	CVTMCHPR	0564	0234		CVTRSV39	0536	0218
CVTAPG	0655	028F	CVTMDL	0250	00FA		CVTRSV40	0580	0244
CVTAQAVB	0497	01F1	CVTMDLDS	0464	01D0		CVTRSV41	0584	0248
CVTAQAVT	0496	01F0	CVTMODE	0548	0224		CVTRSV42	0588	024C
CVTBTERM	0308	0134	CVTMSER	0404	0194		CVTRSV43	0592	0250
CVTBUF	0272	0110	CVTMSLT	0316	013C		CVTRSV44	0594	0252
CVTCBSP	0512	0200	CVTMZ00	0420	01A4		CVTRSV45	0596	0254
CVTCTLFG	0654	028E	CVTNUCB	0384	0180		CVTRSV46	0600	0258
CVTCUCB	0356	0164	CVTNUMB	0252	00FC		CVTRSV77	0652	028C
CVTDAR	0328	0148	CVTOPTA	0438	01B6		CVTRSV81	0700	02BC
CVTDARA	0329	0149	CVTOPTB	0439	01B7		CVTRSV82	0702	02BE
CVTDATE	0312	0138	CVTPAGE1	0620	026C		CVTRSV83	0704	02C0
CVTDCB	0372	0174	CVTPATCH	0476	01DC		CVTRSV84	0708	02C4
CVTDCBA	0373	0175	CVTPBLDL	0348	015C		CVTRSV85	0712	02C8
CVTDIRST	0616	0268	CVTPCNVT	0284	011C		CVTRSV86	0716	02CC
CVTDMSR	0528	0210	CVTPFIXP	0688	02B0		CVTSEFLG	0632	0278
CVTDMSRA	0529	0211	CVTPFIXQ	0680	02A8		CVTSEG	0636	027C
CVTEORM	0568	0238	CVTPFIXR	0684	02AC		CVTSEGA	0636	027C
CVTERPV	0572	023C	CVTPGSUP	0624	0270		CVTSEGB	0640	0280
CVTEXT1	0508	01FC	CVTPRLTV	0288	0120		CVTSEGC	0644	0284
CVTEXT2	0584	0248	CVTPTCD	0692	02B4		CVTSEGCA	0645	0285
CVTEXT2A	0585	0249	CVTPTRV	0544	0220		CVTSEGD	0648	0288
CVTFBOSV	0388	0184	CVTPURG	0516	0204		CVTSEGDA	0649	0289
CVTFLGS1	0328	0148	CVTPURGA	0517	0205		CVTSEGLC	0644	0284
CVTGTF	0492	01EC	CVTPVALD	0668	029C		CVTSEGLD	0648	0288
CVTGTFA	0493	01ED	CVTPVTP	0612	0264		CVTSER	0632	0278
CVTGTFST	0492	01EC	CVTQCDSR	0440	01B8		CVTSERA	0633	0279
CVTHEAD	0416	01A0	CVTQLPAQ	0444	01BC		CVTSHRVM	0672	02A0
CVTHJES	0588	024C	CVTQMSG	0524	020C		CVTSJQ	0352	0160
CVTHJESA	0589	024D	CVTQMSGA	0525	020D		CVTSLID	0629	0275
CVTIERLC	0400	0190	CVTQMWR	0432	01B0		CVTSLIDA	0628	0274
CVTILCH	0396	018C	CVTQOCR	0428	01AC		CVTSMCA	0452	01C4
CVTILK1	0292	0124	CVTQTD00	0364	016C		CVTSNCTR	0436	01B4
CVTILK2	0296	0128	CVTQTE00	0360	0168		CVTSPVLK	0653	028D
CVTINTLA	0576	0240	CVTREAL	0540	021C		CVTSTB	0368	0170
CVTIOQET	0376	0178	CVTRELNO	0252	00FC		CVTSVDCB	0340	0154
CVTIXAVL	0380	017C	CVTRMS	0480	01E0		CVTSYLK	0628	0274
CVTJESCT	0552	0228	CVTRSCN	0660	0294		CVTSYSAD	0304	0130
CVTJOB	0268	010C	CVTRSVA2	0604	025C		CVTSYST	0504	01F8
CVTLEVL	0254	00FE	CVTRSV11	0412	019C		CVTSYSWT	0696	02B8
CVTLINK	0264	0108	CVTRSV18	0448	01C0		CVTTAS	0664	0298
CVTLPDIA	0616	0268	CVTRSV35	0516	0204		CVTTAT	0501	01F5

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FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
CVTTATA	0500	01F4	CVTTSKS	0500	01F4	CVT0EF00	0260	0104	
CVTTCBP	0256	0100	CVTTZ	0560	0230	CVT0FN00	0332	014C	
CVTTCMFG	0496	01F0	CVTUSER	0460	01CC	CVT0PT01	0408	0198	
CVTTPC	0344	0158	CVTXAPG	0276	0114	CVT0SCR1	0488	01E8	
CVTTSCE	0472	01D8	CVTXITP	0324	0144	CVT0VL00	0280	0118	
CVTTSCVB	0485	01E5	CVTXTLER	0300	012C	CVT0VL01	0676	02A4	
CVTTSCVT	0484	01E4	CVTZDTAB	0320	0140	CVT1EF00	0424	01A8	
CVTTSFLG	0484	01E4	CVT0DS	0392	0188	CVT8AOS2	0018	0012	(EQU)

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
CVTCTLFG	SYSTEM CONTROL FLAGS	CVTPSIC	X'80'	PAGING SUPERVISOR IN CONTROL
		CVTAPGB	X'40'	APG IS ACTIVE ICB339
		CVTRSV78	X'20'	RESERVED
		CVTDSTAT	X'10'	DEVSTAT OPTION IN EFFECT. DEVICE ADDRESS FOR 2319, 3330, 2314
		CVTRSV79	X'08'	RESERVED
		CVTRSV80	X'04'	RESERVED
		CVTGTRCE	X'02'	GTF HAS SUPPRESSED SUPERVISOR TRACE ICB446
		CVTSDTRC	X'01'	SVC DUMP HAS SUPPRESSED SUPERVISOR TRACE
CVTDCB	OPERATING SYSTEM	CVTRSV08	X'80'	RESERVED
		CVT1SSS	X'40'	OPTION 1 (PCP) SSS
		CVT2SPS	X'20'	OPTION 2 (MFT) SPS, VS1
		CVT4MS1	X'10'	OPTION 4 (MVT) MS1, VS2
		CVTRSV09	X'08'	RESERVED
		CVT4MPS	X'04'	MODEL 65 MULTIPROCESSING
		CVT6DAT	X'02'	DYNAMIC ADDRESS TRANSLATION BY CPU
		CVT8AOS2	X'12'	VS2 SYSTEM
		CVTRSV10	X'01'	RESERVED
CVTDIRST	FLAG BYTE	CVTDICOM	X'80'	LPA DIRECTORY HAS BEEN INITIALIZED BY NIP
		CVTRSV63	X'40'	RESERVED
		CVTRSV64	X'20'	RESERVED
		CVTRSV65	X'10'	RESERVED
		CVTRSV66	X'08'	RESERVED
		CVTRSV67	X'04'	RESERVED
		CVTRSV68	X'02'	RESERVED
		CVTRSV69	X'01'	RESERVED
CVTFLGS1	FLAG BYTE	CVTDMPLK	X'80'	SVC DUMP IS IN PROGRESS
		CVTRSV01	X'40'	RESERVED
		CVTRSV02	X'20'	RESERVED
		CVTRSV03	X'10'	RESERVED
		CVTRSV04	X'08'	RESERVED
		CVTRSV05	X'04'	RESERVED
		CVTRSV06	X'02'	RESERVED
		CVTRSV07	X'01'	RESERVED
CVTGTFST	GTF FLAG BYTES	CVTGTFS	X'C0'	GTF STATUS
		CVTGTFIN	X'00'	GTF NOT ACTIVE
		CVTGTFSP	X'80'	GTF STOPPING
		CVTGTFSR	X'40'	GTF STARTING
		CVTGTFAC	X'C0'	GTF ACTIVE
		CVTSTATE	X'20'	GTF IN CONTROL PROCESSING A HOOK
		CVTTMODE	X'10'	IF 0 - MODE=INT, IF 1-MODE=EXT

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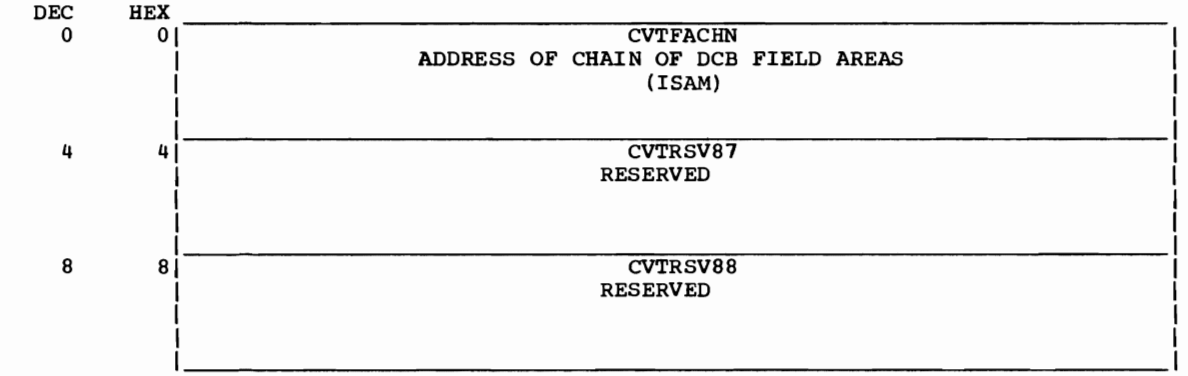
FLAG	CONTAINS	MASK	VALUE	MEANS
		CVTFORM	X'08'	FORMAT TRACE TABLE AT ABEND ICB312
		CVTUSR	X'04'	TRACE=USR SPECIFIED ICB312
		CVTRSV26	X'02'	RESERVED
		CVTRSV27	X'01'	RESERVED
CVTOPTA	MISCELLANEOUS FLAGS	CVTCCH	X'80'	CCH OPTION PRESENT
		CVTAPR	X'40'	AUTOMATIC PATH RETRY -- I/O RECOVERY MGMT
		CVTDDR	X'20'	DYNAMIC DEVICE RECONFIGURATION -- I/O RECOVERY MGMT
		CVTRSV12	X'08'	RESERVED
		CVTRSV13	X'04'	RESERVED
		CVTASCII	X'02'	USAS(CI)I OPTION PRESENT
		CVTXPFP	X'01'	CPU HAS EXTENDED PRECISION FLOATING POINT
CVTOPTB	MISCELLANEOUS FLAGS	CVTPROT	X'80'	STORE PROTECTION SYSGENED VS1
		CVTRSV14	X'40'	RESERVED
		CVTTOD	X'20'	CPU HAS TIME OF DAY CLOCK
		CVTNLOG	X'10'	SYS1.LOGREC UNAVAILABLE FOR ERROR RECORDING
		CVTAPTHR	X'08'	NIP SETS TO 1 WHEN DEVICE TESTING IS
		CVTFP	X'04'	FETCH PROTECT IS ACTIVE VS1
		CVTRSV16	X'02'	RESERVED
		CVTRSV17	X'01'	RESERVED
CVTSEFLG	SECOND EXIT FLAGS	CVTSEIC	X'80'	INDICATES THAT PAGING SUPERVISOR HAS BRANCHED TO A SECOND-EXIT ROUTINE
		CVTRSV70	X'40'	RESERVED
		CVTRSV71	X'20'	RESERVED
		CVTRSV72	X'10'	RESERVED
		CVTRSV73	X'08'	RESERVED
		CVTRSV74	X'04'	RESERVED
		CVTRSV75	X'02'	RESERVED
		CVTRSV76	X'01'	RESERVED
CVTSYLK	SUPERVISOR LOCK. ONLY ENABLED TASKS MAY BE DISPATCHED	CVTSYLKS	X'FF'	SET LOCK BYTE
		CVTSYLKR	X'00'	RESET LOCK BYTE
CVTTCMFG	TCAM FLAGS	CVTTCRDY	X'80'	TCAM RUNNING VS2
		CVTRSV28	X'40'	RESERVED
		CVTRSV29	X'20'	RESERVED
		CVTRSV30	X'10'	RESERVED
		CVTRSV31	X'08'	RESERVED
		CVTRSV32	X'04'	RESERVED
		CVTRSV33	X'02'	RESERVED
		CVTRSV34	X'01'	RESERVED
CVTTSFLG	TIME SHARING FLAGS (TSO)	CVTTSRDY	X'80'	TIME SHARING READY
		CVTRSV19	X'40'	RESERVED
		CVTRSV20	X'20'	RESERVED
		CVTRSV21	X'10'	RESERVED
		CVTRSV22	X'08'	RESERVED
		CVTRSV23	X'04'	RESERVED
		CVTRSV24	X'02'	RESERVED
		CVTRSV25	X'01'	RESERVED

STORAGE MAP OF CVTXTNT1



DISPLACEMENT LIST OF FIELDS IN CVT

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CVTFACHN	0004	0004	CVTRSV87	0008	0008	CVTRSV88

ALPHABETICAL LIST OF FIELDS IN CVT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CVTFACHN	0000	0000	CVTRSV87	0004	0004	CVTRSV88	0008	0008

STORAGE MAP OF CVTXTNT2

DEC	HEX			
0	0	CVTRSV89 RESERVED	CVTDSSVA ADDRESS OF THE DSS VECTOR TABLE ICB393	
4	4	CVTNUCLS USED TO IDENTIFY THE NUCLEUS MEMBER NAME	CVTRSV90 RESERVED	CVTRSV91 RESERVED
8	8	CVTDEBVR ADDRESS OF BRANCH ENTRY POINT OF DEBCHK VERIFY ROUTINE		
12	C	CVTRSV92 RESERVED		
16	10	CVTRSV93 RESERVED		
20	14	CVTRSV94 RESERVED		
24	18	CVTRSV95 RESERVED	CVTQIDA ADDRESS OF QID TABLE PREFIX	
28	1C	CVTOLTEP POINTER TO CONTROL BLOCK CREATED BY SVC 59 TO POINT TO PSEUDO-DEBs		
32	20	CVTRSV96 RESERVED	CVTRSV97 RESERVED	
36	24	CVTRSV98 RESERVED		
40	28	CVTRSV99 RESERVED		

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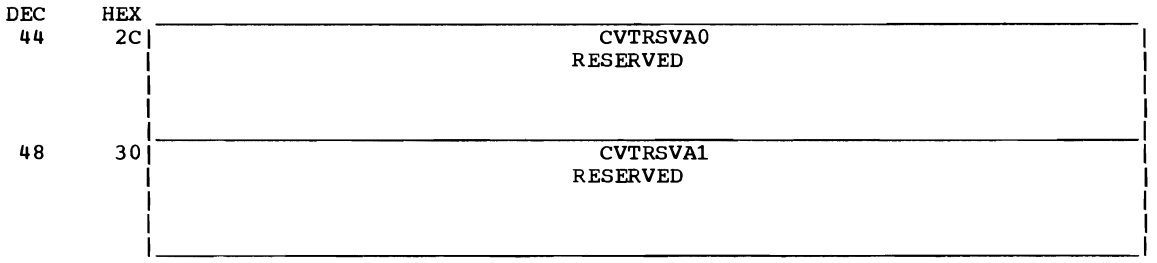


DISPLACEMENT LIST OF FIELDS IN CVTXTNT2

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	CVTRSV89	0012	000C	CVTRSV92	0032	0020	CVTRSV96
0000	0000	CVTDSSV	0016	0010	CVTRSV93	0034	0022	CVTRSV97
0001	0001	CVTDSSVA	0020	0014	CVTRSV94	0036	0024	CVTRSV98
0004	0004	CVTNUCLS	0024	0018	CVTRSV95	0040	0028	CVTRSV99
0005	0005	CVTRSV90	0024	0018	CVTQID	0044	002C	CVTRSVA0
0006	0006	CVTRSV91	0025	0019	CVTQIDA	0048	0030	CVTRSVA1
0008	0008	CVTDEBVR	0028	001C	CVTOLTEP			

ALPHABETICAL LIST OF FIELDS IN CVTXTNT2

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CVTDEBVR	0008	0008	CVTRSVA0	0044	002C	CVTRSV94	0020	0014
CVTDSSV	0000	0000	CVTRSVA1	0048	0030	CVTRSV95	0024	0018
CVTDSSVA	0001	0001	CVTRSV89	0000	0000	CVTRSV96	0032	0020
CVTNUCLS	0004	0004	CVTRSV90	0005	0005	CVTRSV97	0034	0022
CVTOLTEP	0028	001C	CVTRSV91	0006	0006	CVTRSV98	0036	0024
CVTQID	0024	0018	CVTRSV92	0012	000C	CVTRSV99	0040	0028
CVTQIDA	0025	0019	CVTRSV93	0016	0010			

FLAGS AND MASKS

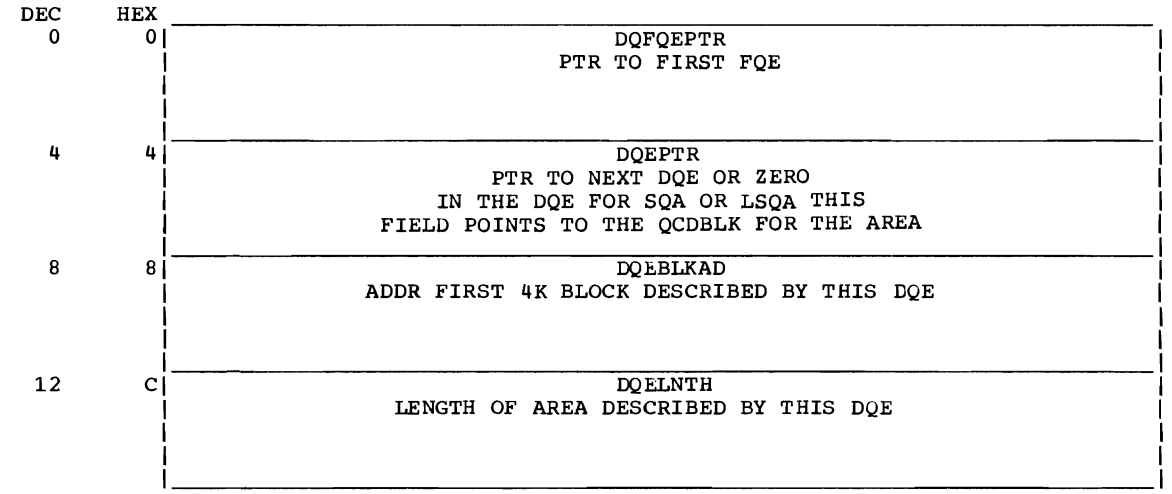
FLAG	CONTAINS
CVTRSV90	RESERVED

MASK	VALUE	MEANS
CVTRSV9A	X'80'	RESERVED
CVTRSV9B	X'40'	RESERVED
CVTRSV9C	X'20'	RESERVED
CVTRSV9D	X'10'	RESERVED
CVTRSV9E	X'08'	RESERVED
CVTRSV9F	X'04'	RESERVED
CVTRSV9G	X'02'	RESERVED
CVTRSV9H	X'01'	RESERVED

DQE (Descriptor Queue Element)

Total size: 16 bytes
Created by: IEAVGM00
Purpose: Describes an allocated block of contiguous virtual storage that is assigned to a subpool in multiples of 4K bytes.

STORAGE MAP OF DQE



DISPLACEMENT LIST OF FIELDS IN DQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	DQFQEPTR	0008	0008	DQEBLKAD	0012	000C	DQELNTH
0004	0004	DQEPTR	0008	0008	DQEHRID			

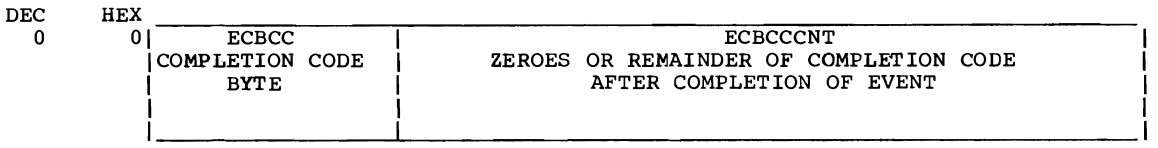
ALPHABETICAL LIST OF FIELDS IN DQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DQEBLKAD	0008	0008	DQELNTH	0012	000C	DQFQEPTR	0000	0000
DQEHRID	0008	0008	DQEPTR	0004	0004			

ECB (Event Control Block)

Total size: 4 bytes
Created by: Caller of WAIT routine
Purpose: Used for communication between various components of the control program, as well as processing programs and the control program. An ECB is the subject of the WAIT and POST macro instructions.

STORAGE MAP OF ECB



DISPLACEMENT LIST OF FIELDS IN ECB

DEC	HEX	FIELD
0000	0000	ECBCC
0000	0000	ECBRB
0001	0001	ECBCCCNT
0001	0001	ECBRBA

ALPHABETICAL LIST OF FIELDS IN ECB

FIELD	DEC	HEX
ECBCC	0000	0000
ECBCCCNT	0001	0001
ECBRB	0000	0000
ECBRBA	0001	0001

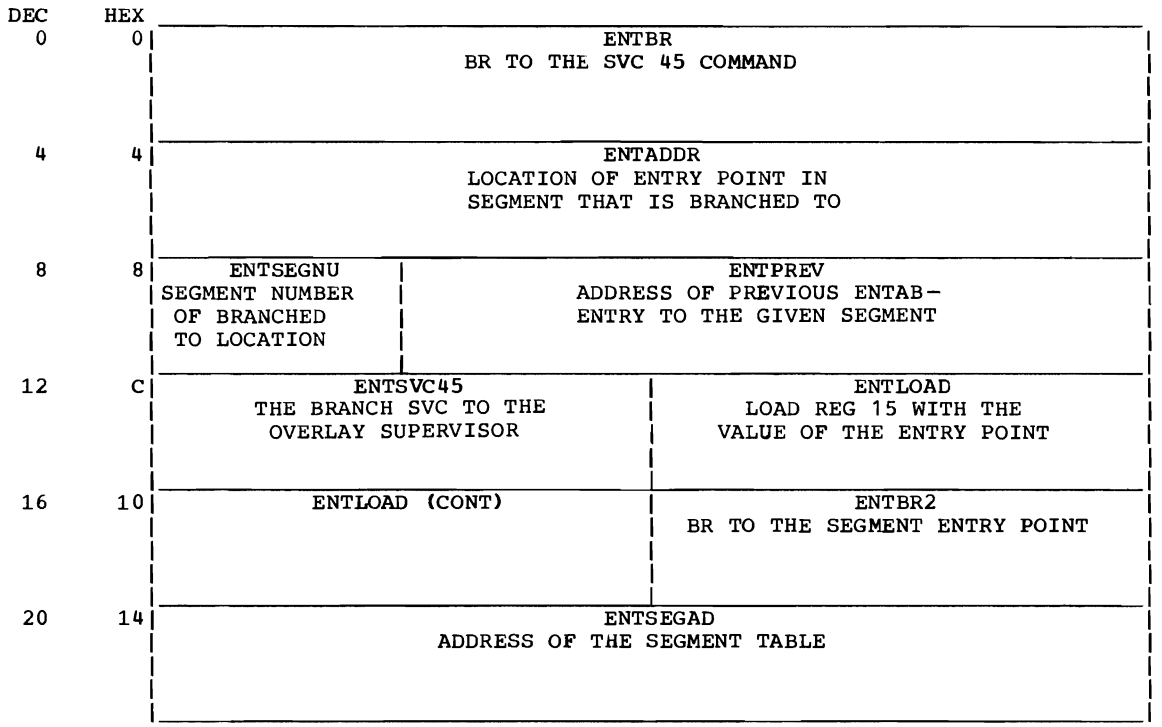
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
ECBCC	COMPLETION CODE BYTE	ECBWAIT	X'80'	WAITING FOR COMPLETION OF EVENT
		ECBPOST	X'40'	EVENT HAS COMPLETED
		ECBNORM	X'7F'	CHANNEL PROGRAM HAS TERMINATED WITHOUT ERROR
		ECBPERR	X'41'	CHANNEL PROGRAM HAS TERMINATED WITH ERROR
		ECBDAEA	X'42'	CHANNEL PROGRAM HAS TERMINATED BECAUSE AN EXTENT ADDR VIOLATED
		ECBABEND	X'43'	I/O ABEND CONDITION OCCURRED FOR ERROR IN LOADING TASK
		ECBINCPT	X'44'	CHANNEL PROGRAM HAS BEEN INTERCEPTED-DEVICE END-REISSUE REQUEST
		ECBREPRG	X'48'	RQE HAS BEEN RELEASED DUE TO A PURGE REQUEST (NON-BTAM)
		ECBEHALT	X'48'	ENABLE COMMAND HALTED OR I/O OPERATION PURGED (BTAM)
		ECBERPAB	X'4B'	ABNORMAL COMPLETION OF ERP PROCESSING DUE TO CRITICAL ERROR
		ECBERPER	X'4F'	ERROR RECOVERY ROUTINES HAVE BEEN ENTERED-D.A. ERROR-UNABLE TO READ HOME ADDR OR RECORD 0
		ECBSETEO	X'70'	SETEOF MACRO WAS ISSUED IN MESSAGE COMMAND PGM. (TCAM)
		ECBDMQDS	X'5C'	CONGESTED DESTINATION MESSAGE QUEUE DATA SET (WRITE ONLY) - TCAM
		ECBSEQER	X'58'	SEQUENCE ERROR (TCAM)
		ECBINVMD	X'54'	INVALID MESSAGE DESTINATION (TCAM)
		ECBWKOVR	X'52'	WORKAREA OVERFLOW (TCAM)
		ECBNOMSG	X'50'	MESSAGE WAS NOT FOUND WHEN READ MACRO ISSUED WITH POINT MACRO TO RETRIEVE MSG (TCAM)
		ECBEOQ	X'02'	END-OF-QUEUE CONDITION (NOT END-OF-FILE) (TCAM)
		ECBRAQMT	X'01'	READ-AHEAD QUEUE EMPTY, BUT DESTINATION QUEUE NOT EMPTY (TCAM)
		ECBDTRAQ	X'40'	DATA IS ON READ-AHEAD QUEUE (TCAM)

ENTAB (Entry Table)

Total size: 24 bytes
Created by: Linkage editor
Purpose: The linkage editor builds an entry table for each overlay segment that contains V-type address constants.

STORAGE MAP OF ENTAB



DISPLACEMENT LIST OF FIELDS IN ENTAB

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	ENTBR	0009	0009	ENTPREV	0018	0012	ENTBR2
0004	0004	ENTADDR	0012	000C	ENTSVC45	0020	0014	ENTSEGAD
0008	0008	ENTSEGNU	0014	000E	ENTLOAD			

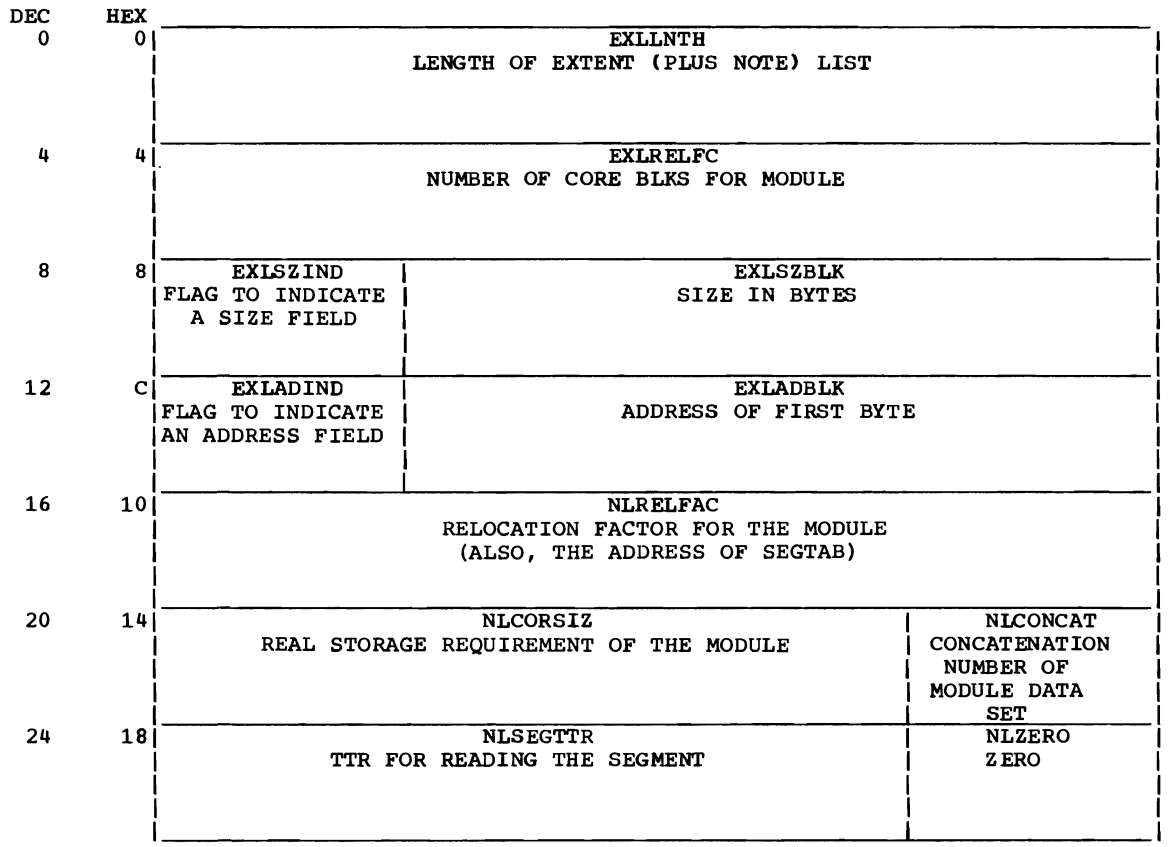
ALPHABETICAL LIST OF FIELDS IN ENTAB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
ENTADDR	0004	0004	ENTLOAD	0014	000E	ENTSEGNU	0008	0008
ENTBR	0000	0000	ENTPREV	0009	0009	ENTSVC45	0012	000C
ENTBR2	0018	0012	ENTSEGAD	0020	0014			

EXLNL (Note List)

Total size: 28 bytes
Created by: Program Fetch
Purpose: Program Fetch creates both a note list and an extent list (see XTLST in this section) when called by contents supervision. The note list contains information necessary for loading an overlay module.

STORAGE MAP OF EXLNL



DISPLACEMENT LIST OF FIELDS IN EXLNL

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	EXLLNTH		0009	0009	EXLSZBLK		0016	0010	EXLSIZE	(EQU)
0000	0000	EXLIST		0012	000C	EXLADIND		0020	0014	NLCORSIZ	
0002	0002	NLENTSZ	(EQU)	0012	000C	EXLCORAD		0023	0017	NLCONCAT	
0004	0004	EXLRELFC		0013	000D	EXLADBLK		0024	0018	NLSEGTTR	
0008	0008	EXLSZIND		0016	0010	NLRELFAC		0024	0018	NLENTRYS	
0008	0008	EXLCORSZ		0016	0010	NOTELIST		0027	001B	NLZERO	

ALPHABETICAL LIST OF FIELDS IN EXLNL

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
EXLADBLK	0013	000D		EXLRELFC	0004	0004		NLENTRYS	0024	0018	
EXLADIND	0012	000C		EXLSIZE	0016	0010	(EQU)	NLENTSZ	0002	0002	(EQU)
EXLCORAD	0012	000C		EXLSZBLK	0009	0009		NLRELFAC	0016	0010	
EXLCORSZ	0008	0008		EXLSZIND	0008	0008		NLSEGTTR	0024	0018	
EXLIST	0000	0000		NLCONCAT	0023	0017		NLZERO	0027	001B	
EXLLNTH	0000	0000		NLCORSIZ	0020	0014		NOTELIST	0016	0010	

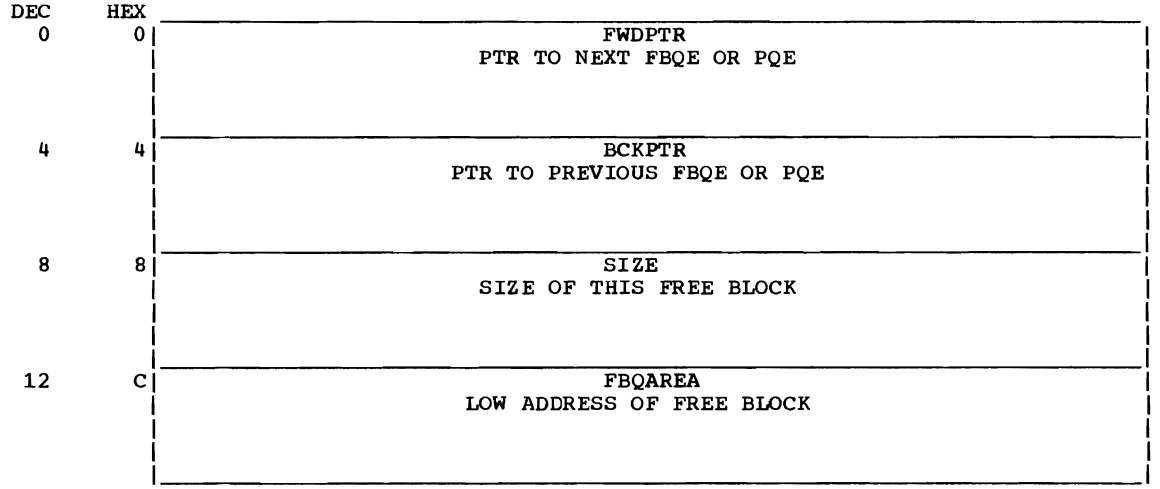
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
EXLADBLK	ADDRESS OF FIRST BYTE	SZIND	X'80'	SIZE INDICATOR
		ADIND	X'00'	ADDR INDICATOR

FBQE (Free Block Queue Element)

Total size: 16 bytes
Created by: IEAVGM00
Purpose: Describes an unallocated block of contiguous virtual storage, in multiples of 4K bytes, within an area defined by a PQE (partition queue element).

STORAGE MAP OF FBQE



DISPLACEMENT LIST OF FIELDS IN FBQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	FWDPTR	0004	0004	BCKPTR	0008	0008	SIZE
						0012	000C	FBQAREA

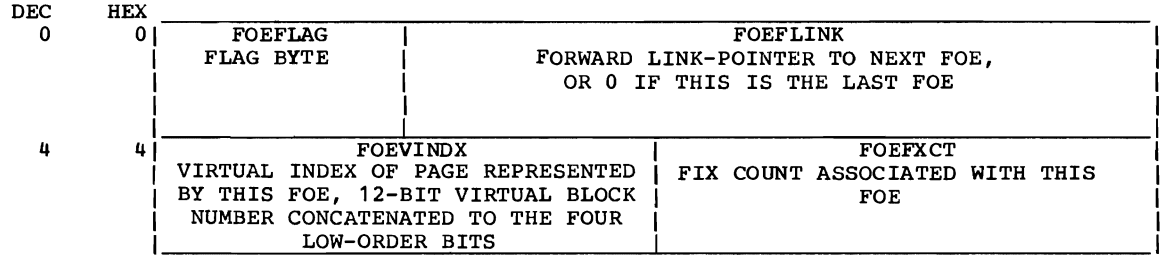
ALPHABETICAL LIST OF FIELDS IN FBQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
BCKPTR	0004	0004	FBQAREA	0012	000C	FWDPTR	0000	0000
						SIZE	0008	0008

FOE (Fix Ownership Element)

Total size: 8 bytes
Created by: IEAPSI
Purpose: Represents a virtual page that has been fixed (via an SVC) by the task to whose TCB this FOE is chained.

STORAGE MAP OF FOE



DISPLACEMENT LIST OF FIELDS IN FOE

DEC	HEX	FIELD	DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	FOEFLAG	0004	0004	FOEVINDX		0008	0008	FOEEND
0000	0000	FOEFLNKF	0006	0006	FOEFXCT				
0001	0001	FOEFLINK	0008	0008	FOELEN	(EQU)			

ALPHABETICAL LIST OF FIELDS IN FOE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
FOEEND	0008	0008	FOEFLNKF	0000	0000		FOEVINDX	0004	0004
FOEFLAG	0000	0000	FOEFXCT	0006	0006				
FOEFLINK	0001	0001	FOELEN	0008	0008	(EQU)			

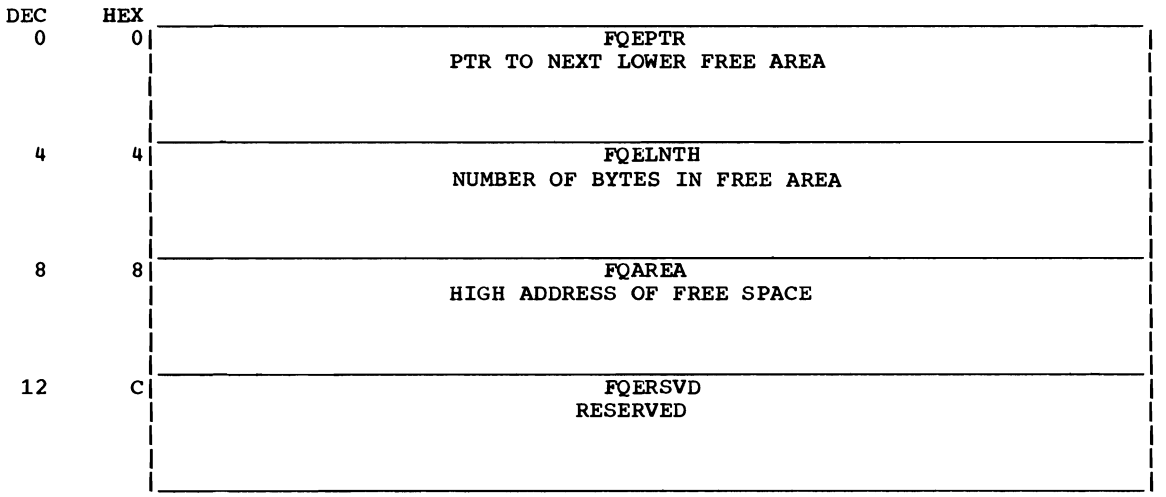
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
FOEFLAG	FLAG BYTE	FOEINT	X'80'	WHEN 1, FOE QUIESCED OR PURGED

FQE (Free Queue Element)

Total size: 16 bytes (region FQE) or 8 bytes (SQA or LSQA FQE)
Created by: IEAVGM00
Purpose: Describes unallocated virtual addresses within a region, a local system queue area, or the system queue area.

STORAGE MAP OF FQE



DISPLACEMENT LIST OF FIELDS IN FQE

DEC	HEX	FIELD	DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	FQEPTR	0008	0008	FQESLNTH	(EQU)	0016	0010	FQERLNTH	(EQU)
0000	0000	FQTYPE	0008	0008	FQAREA					
0004	0004	FQELNTH	0012	000C	FQERSVD					

ALPHABETICAL LIST OF FIELDS IN FQE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
FQAREA	0008	0008	FQERLNTH	0016	0010	(EQU)	FQTYPE	0000	0000
FQELNTH	0004	0004	FQERSVD	0012	000C				
FQEPTR	0000	0000	FQESLNTH	0008	0008	(EQU)			

FLAGS AND MASKS

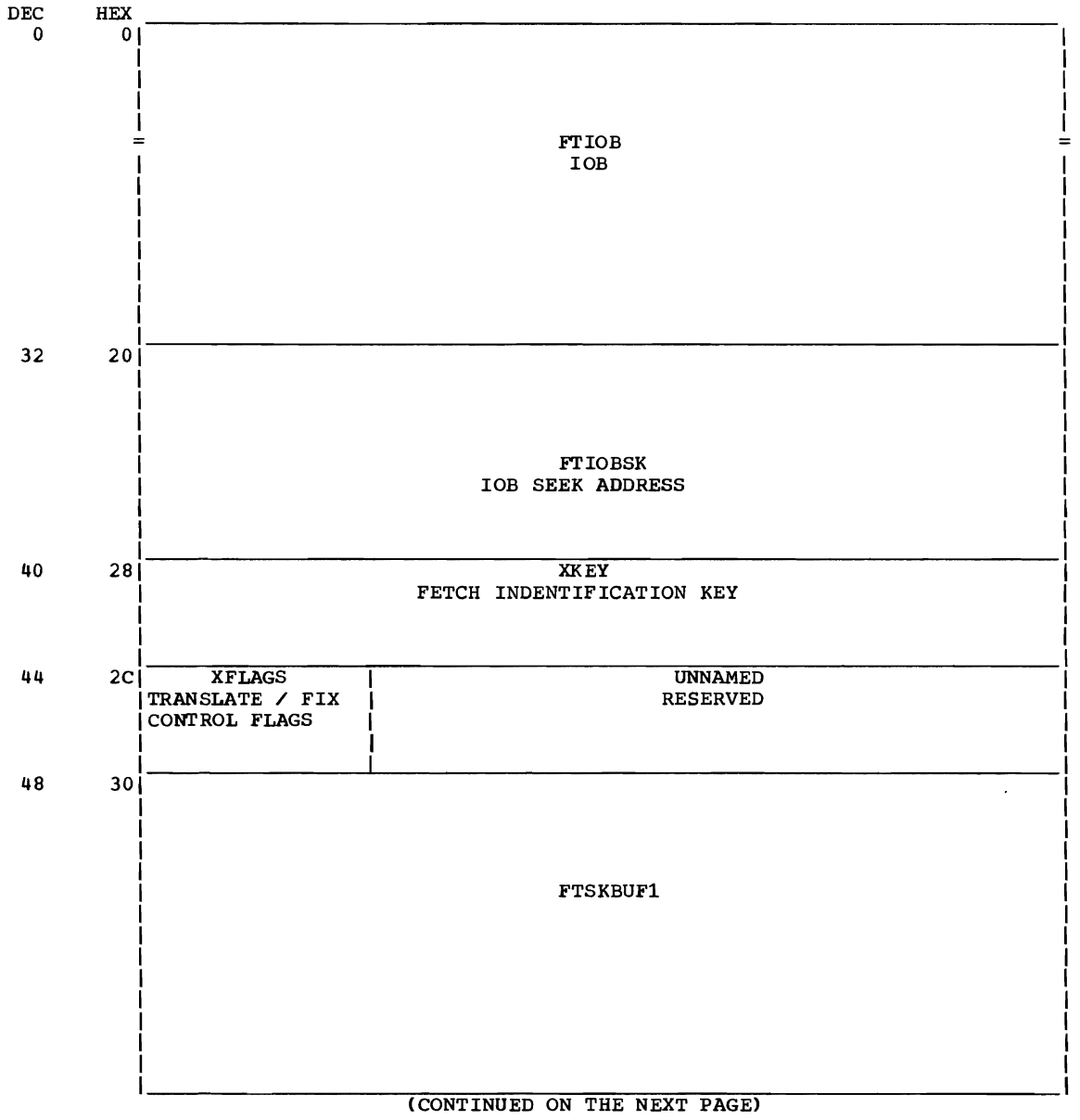
FLAG	CONTAINS
FQTYPE	FLAG BYTE

MASK	VALUE	MEANS
FQERGNFL	X'80'	FQE REGION FLAG
FQECPB	X'40'	FREE AREA CROSSES PAGE BOUNDARY - UNSUITABLE FOR

FTWORK (Program Fetch Work Area)

Total size: 1374 bytes
Created by: Program Fetch
Purpose: Contains information necessary to read a module into virtual storage.

STORAGE MAP OF FTWORK



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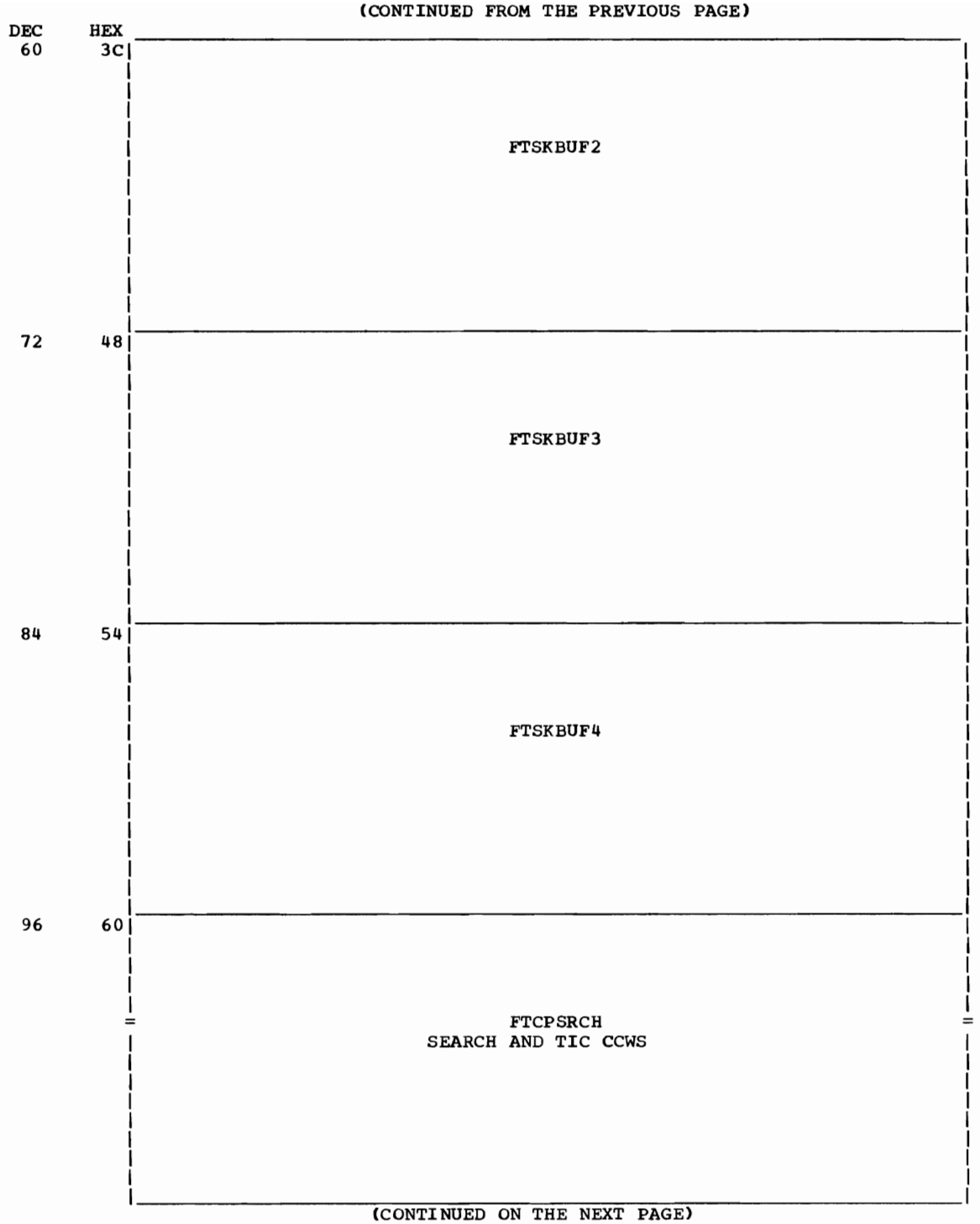

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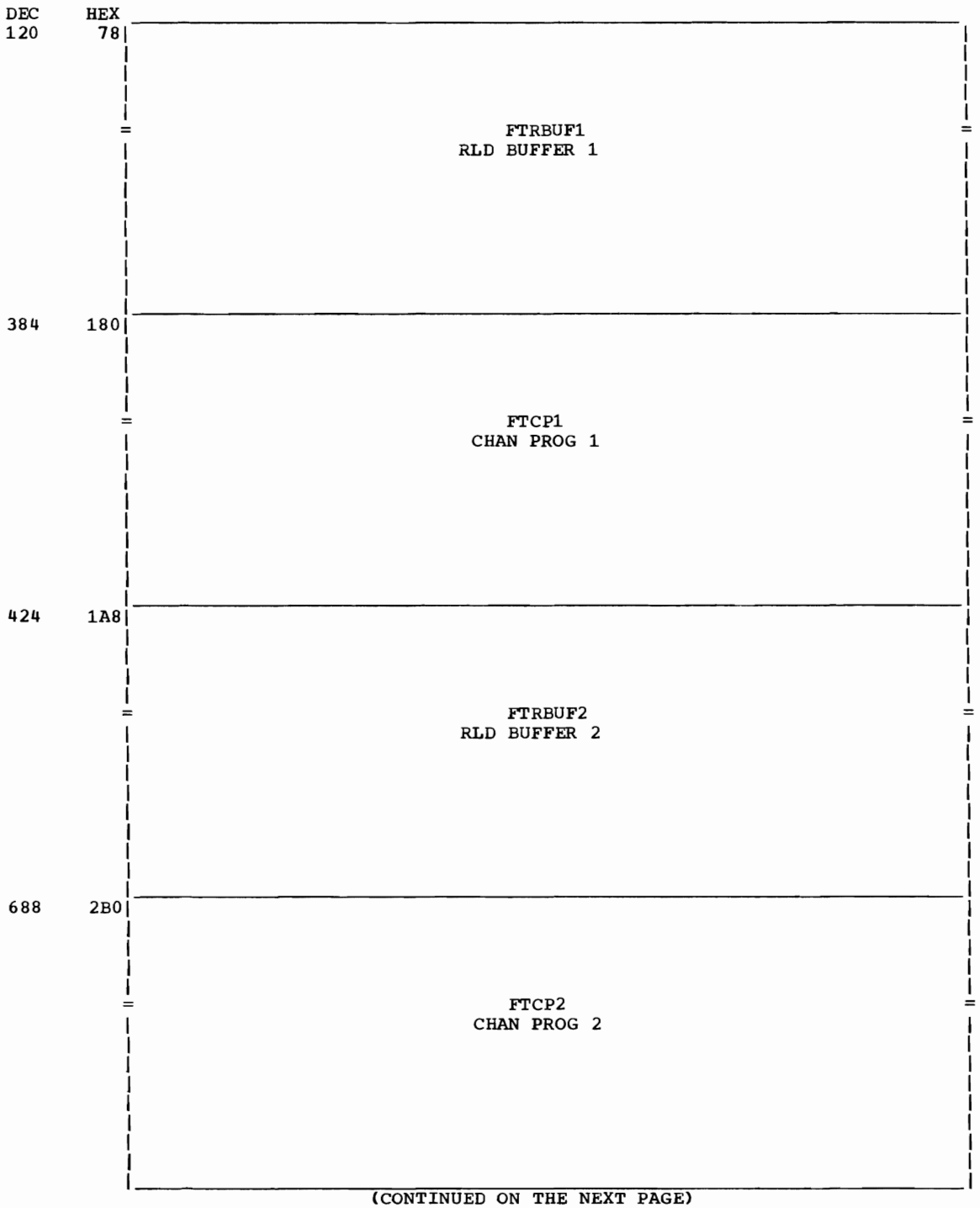
(CONTINUED FROM THE PREVIOUS PAGE)



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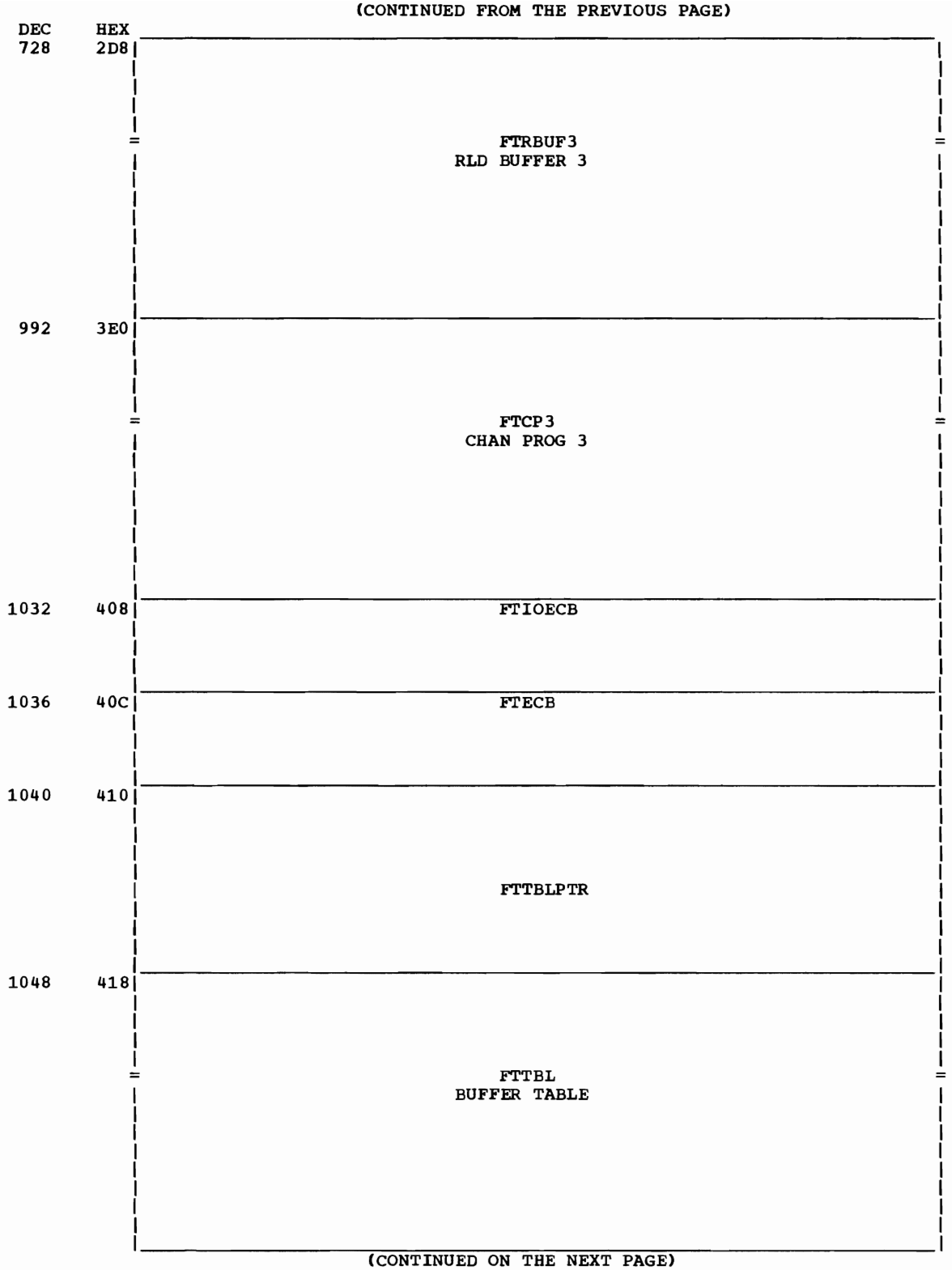
(CONTINUED FROM THE PREVIOUS PAGE)



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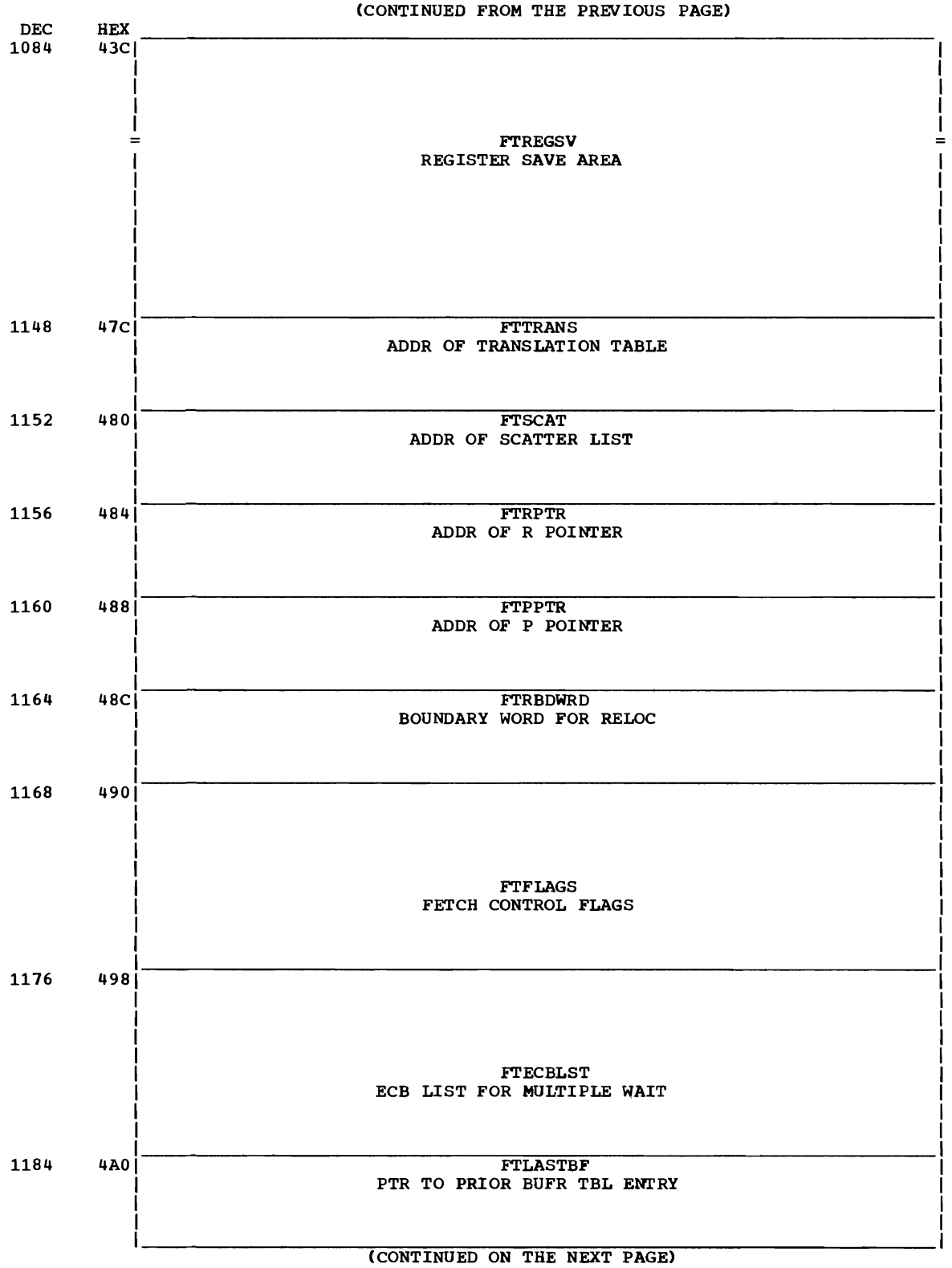
(CONTINUED FROM THE PREVIOUS PAGE)



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DEC	HEX	
1188	4A4	XSOMAD LOWER CORE LIMIT FOR LOAD MODULE
1192	4A8	XEOMAD UPPER CORE LIMIT FOR LOAD MODULE
1196	4AC	XLOFIX LOWER BOUNDARY FOR TEXT AREA FIX REQUIRED
1200	4B0	XHIFIX UPPER BOUNDARY FOR TEXT AREA FIX REQUIRED
1204	4B4	XNEXTLOC LOCATION OF NEXT TEXT BYTE READ
1208	4B8	
	=	XFIXLIST FIX LIST AREA PASSED TO IOS =
1248	4E0	XWKCORPG REAL ADDRESS OF WORK AREA PAGE
1252	4E4	XCCWAD POINTER TO CCW REQ TRANSLATION
1256	4E8	XTXTAD VIRTUAL ADDRESS IN THE CCW
1260	4EC	XIDALP1 POINTER TO IDAL BUILD AREA
1264	4F0	XIDALP2 POINTER TO ALTERNATE IDAL AREA

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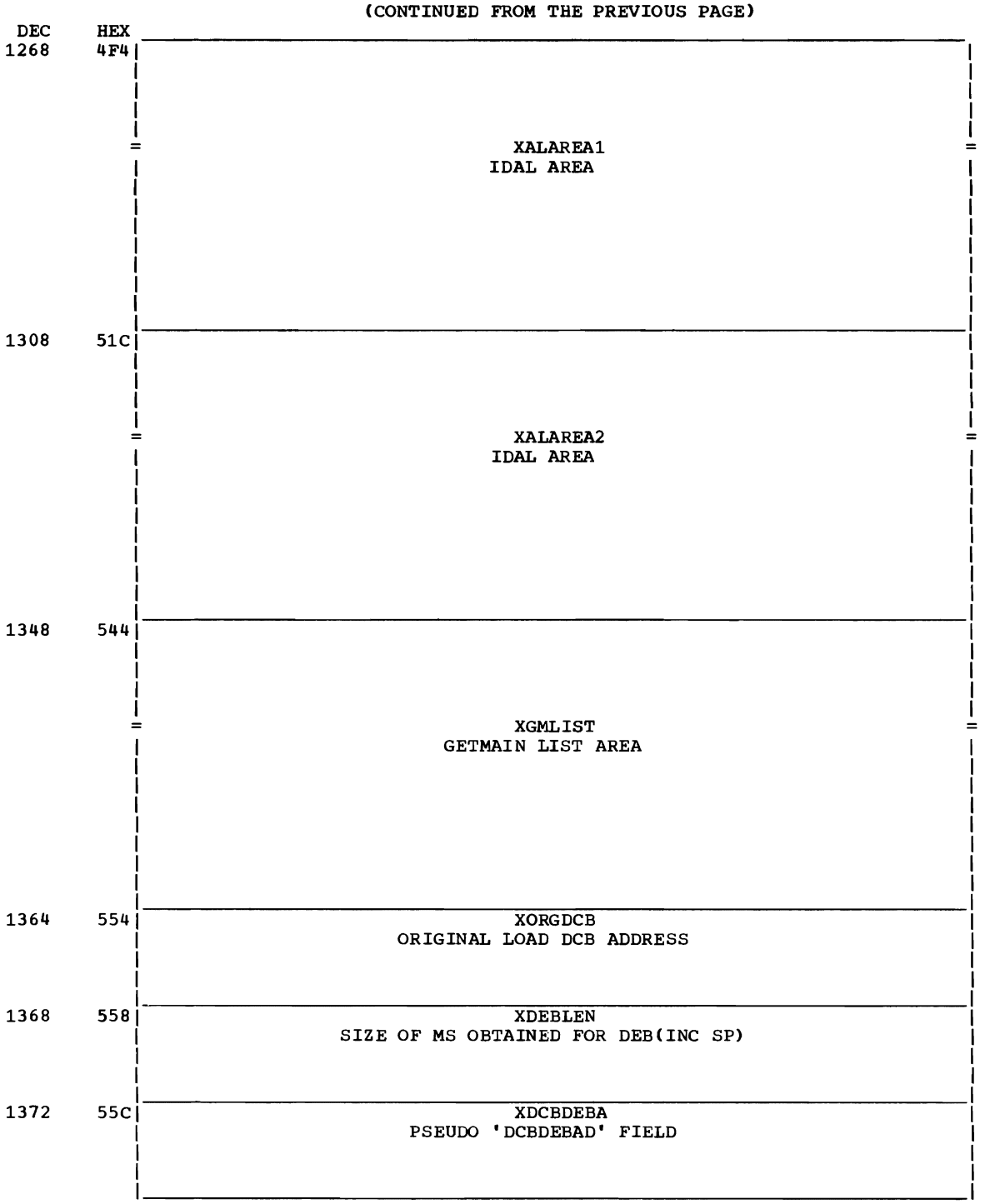
(CONTINUED FROM THE PREVIOUS PAGE)



DISPLACEMENT LIST OF FIELDS IN FTWORK

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	FIXLOENT (EQU)	0688	02B0	FTCP2	1200	04B0	XHIFIX
0000	0000	FTIOB	0728	02D8	FTRBUF3	1204	04B4	XNEXTLOC
0000	0000	FTWKCORE	0992	03E0	FTCP3	1208	04B8	XFIXLIST
0004	0004	FIXHIENT (EQU)	1032	0408	FTIOECB	1248	04E0	XWKCORPG
0004	0004	IDALNTRY (EQU)	1036	040C	FTECB	1252	04E4	XCCWAD
0008	0008	FIXENTSZ (EQU)	1040	0410	FTTBLPTR	1252	04E4	XTRANTAB
0032	0020	FTIOBSK	1048	0418	FTTBL	1256	04E8	XTXTAD
0040	0028	XKEY	1084	043C	FTREGSV	1260	04EC	XIDALP1
0040	0028	XAREA	1148	047C	FTTRANS	1264	04F0	XIDALP2
0044	002C	DCBDEBAD (EQU)	1152	0480	FTSCAT	1268	04F4	XALAREA1
0044	002C	XFLAGS	1156	0484	FTRPTR	1308	051C	XALAREA2
0048	0030	FTSKBUF1	1160	0488	FTPPTR	1328	0530	XDCBCOPY (EQU)
0060	003C	FTSKBUF2	1164	048C	FTRBDWRD	1348	0544	XGMLIST
0072	0048	FTSKBUF3	1168	0490	FTFLAGS	1364	0554	XORGDCB
0084	0054	FTSKBUF4	1176	0498	FTECBLST	1368	0558	XDEBLEN
0096	0060	FTCPSRCH	1184	04A0	FTLASTBF	1372	055C	XDCBDEBA
0120	0078	FTRBUF1	1188	04A4	XSOMAD	1376	0560	FTWORKSZ (EQU)
0384	0180	FTCP1	1192	04A8	XEOMAD			
0424	01A8	FTRBUF2	1196	04AC	XLOFIX			

ALPHABETICAL LIST OF FIELDS IN FTWORK

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DCBDEBAD	0044	002C (EQU)	FTRBUF3	0728	02D8	XDCBDEBA	1372	055C
FIXENTSZ	0008	0008 (EQU)	FTREGSV	1084	043C	XDEBLEN	1368	0558
FIXHIENT	0004	0004 (EQU)	FTRPTR	1156	0484	XEOMAD	1192	04A8
FIXLOENT	0000	0000 (EQU)	FTSCAT	1152	0480	XFIXLIST	1208	04B8
FTCPSRCH	0096	0060	FTSKBUF1	0048	0030	XFLAGS	0044	002C
FTCP1	0384	0180	FTSKBUF2	0060	003C	XGMLIST	1348	0544
FTCP2	0688	02B0	FTSKBUF3	0072	0048	XHIFIX	1200	04B0
FTCP3	0992	03E0	FTSKBUF4	0084	0054	XIDALP1	1260	04EC
FTECB	1036	040C	FTTBL	1048	0418	XIDALP2	1264	04F0
FTECBLST	1176	0498	FTTBLPTR	1040	0410	XKEY	0040	0028
FTFLAGS	1168	0490	FTTRANS	1148	047C	XLOFIX	1196	04AC
FTIOB	0000	0000	FTWKCORE	0000	0000	XNEXTLOC	1204	04B4
FTIOBSK	0032	0020	FTWORKSZ	1376	0560 (EQU)	XORGDCB	1364	0554
FTIOECB	1032	0408	IDALNTRY	0004	0004 (EQU)	XSOMAD	1188	04A4
FTLASTBF	1184	04A0	XALAREA1	1268	04F4	XTRANTAB	1252	04E4
FTPPTR	1160	0488	XALAREA2	1308	051C	XTXTAD	1256	04E8
FTRBDWRD	1164	048C	XAREA	0040	0028	XWKCORPG	1248	04E0
FTRBUF1	0120	0078	XCCWAD	1252	04E4			
FTRBUF2	0424	01A8	XDCBCOPY	1328	0530 (EQU)			

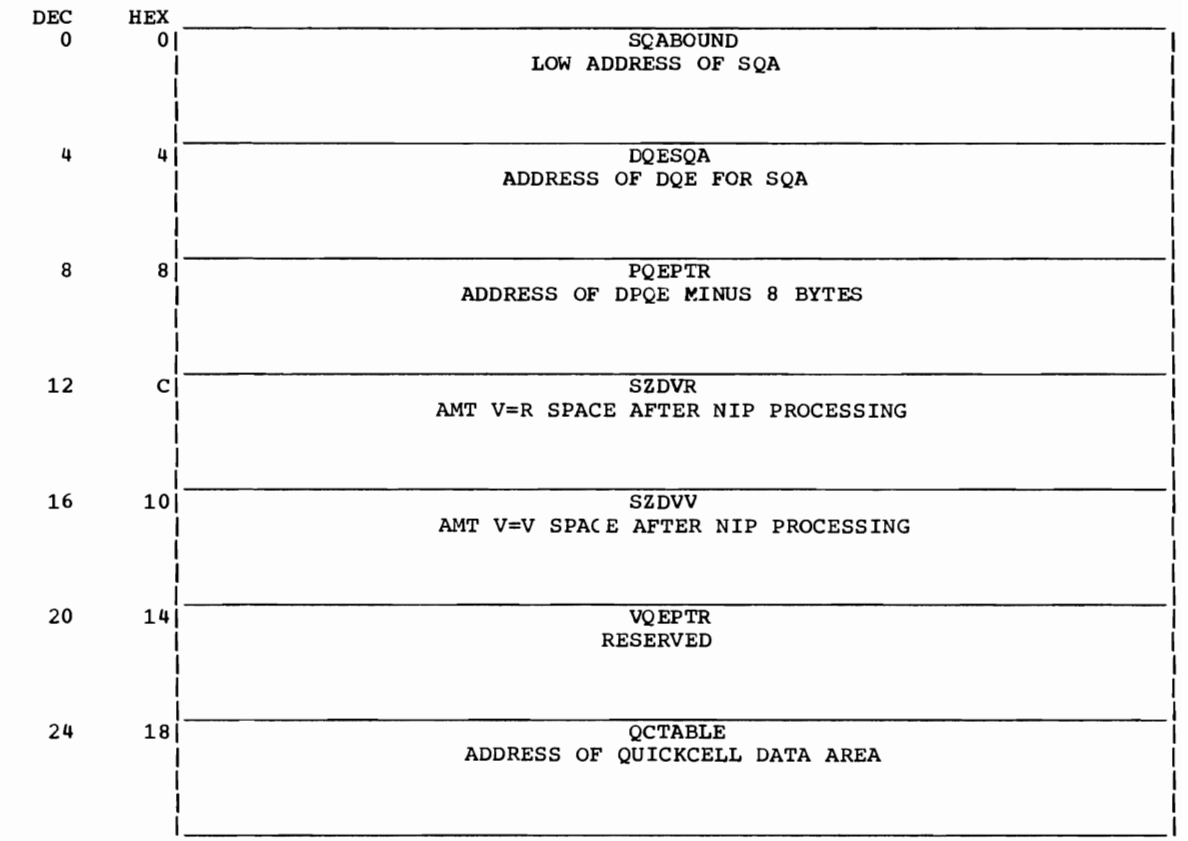
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
XFLAGS	TRANSLATE / FIX CONTROL FLAGS	NEWIOFLG	X'80'	FRESH I/O REQUEST ISSUED
		ACTXTFLG	X'40'	READ-TEXT CCW IS ACTIVE IN CURRENT CP
		SYNRDFLG	X'20'	SYNC READ ISSUED (NO PCI)
		USDEBFLG	X'10'	USERS DEB COPIED INTO GOTTEN CORE

GOVRFLB (Storage Queue Origin List)

Total size: 32 bytes
Created by: IEAVNIP0
Purpose: Primary virtual storage supervision control block. Contains data necessary to begin supervision of virtual storage and defines the quickcell requirements for the system queue area and for the local system queue areas.

STORAGE MAP OF GOVRFLB



DISPLACEMENT LIST OF FIELDS IN GOVRFLB

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SQABOUND	0008	0008	PQEPTR	0020	0014	VQEPTR
0004	0004	DQESQA	0012	000C	SZDVR	0024	0018	QCTABLE
0004	0004	NIP4K	0016	0010	SZDVV			

ALPHABETICAL LIST OF FIELDS IN GOVRFLB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
DQESQA	0004	0004	QCTABLE	0024	0018	SZDVV	0016	0010
NIP4K	0004	0004	SQABOUND	0000	0000	VQEPTR	0020	0014
PQEPTR	0008	0008	SZDVR	0012	000C			

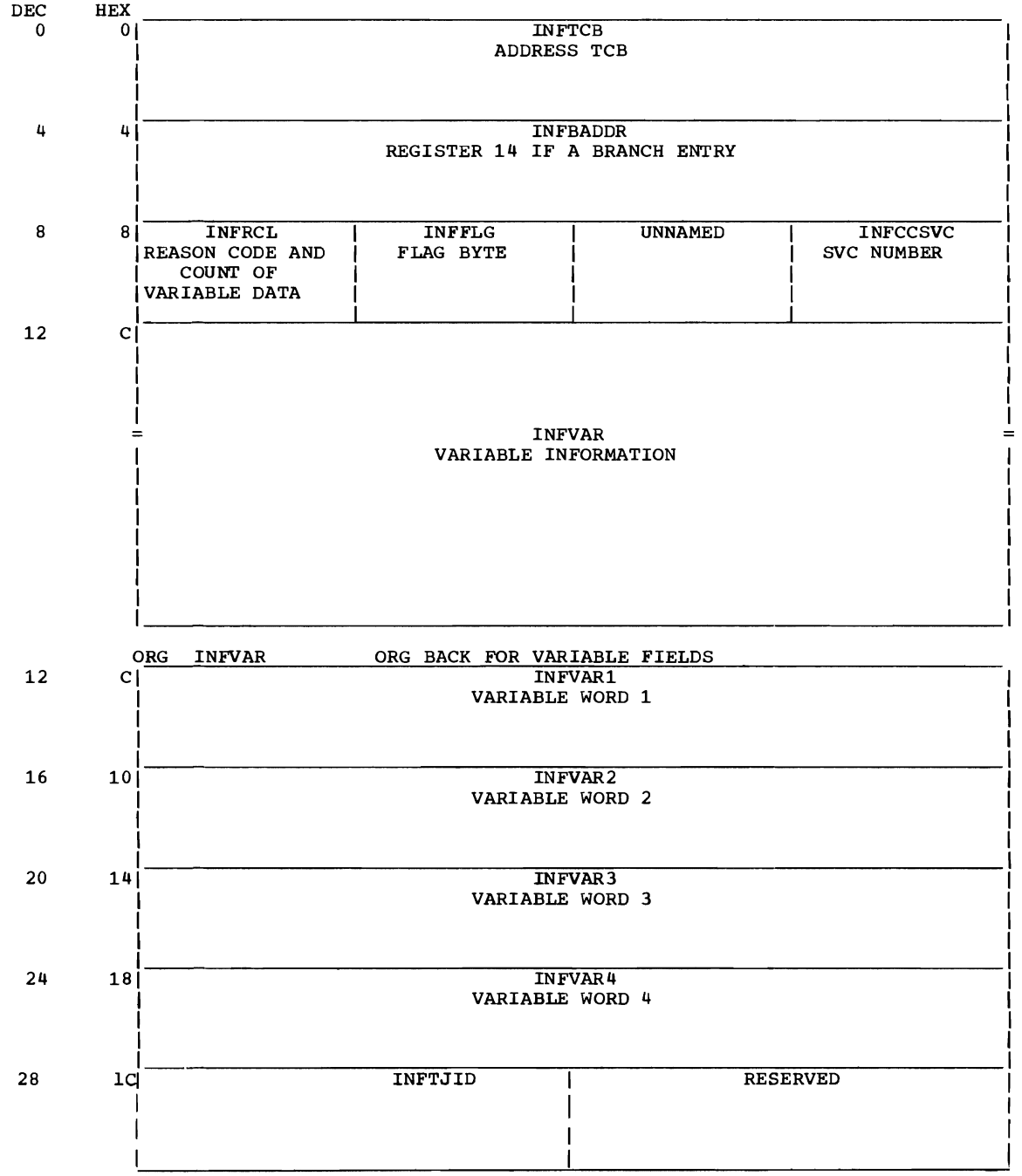
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
NIP4K		NIP4KON	X'80'	4K COMPARATOR

INFOLIST (Type-1 SVC Message Table)

Total size: 28 bytes
Created by: Type-1 SVC routines
Purpose: Used for communicating information to ABEND for its use in constructing and writing error messages upon abnormal termination of a type-1 SVC. Type-1 SVC routines cannot themselves issue error messages.

STORAGE MAP OF INFOLIST



DISPLACEMENT LIST OF FIELDS IN INFOLIST

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	INFTCB	0011	000B	INFCCSVC	0024	0018	INFVAR4
0004	0004	INFBADDR	0012	000C	INFVAR1	0028	001C	INFTJID
0008	0008	INFRCL	0012	000C	INFVAR	0032	0020	INFLEN
0009	0009	INFFLG	0016	0010	INFVAR2	0032	0020	INFEND
0010	000A	INFCC	0020	0014	INFVAR3			

ALPHABETICAL LIST OF FIELDS IN INFOLIST

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
INFBADDR	0004	0004	INFLEN	0032	0020	INFVAR1	0012	000C
INFCC	0010	000A	INFRCL	0008	0008	INFVAR2	0016	0010
INFCCSVC	0011	000B	INFTCB	0000	0000	INFVAR3	0020	0014
INFEND	0032	0020	INFTJID	0028	001C	INFVAR4	0024	0018
INFFLG	0009	0009	INFVAR	0012	000C			

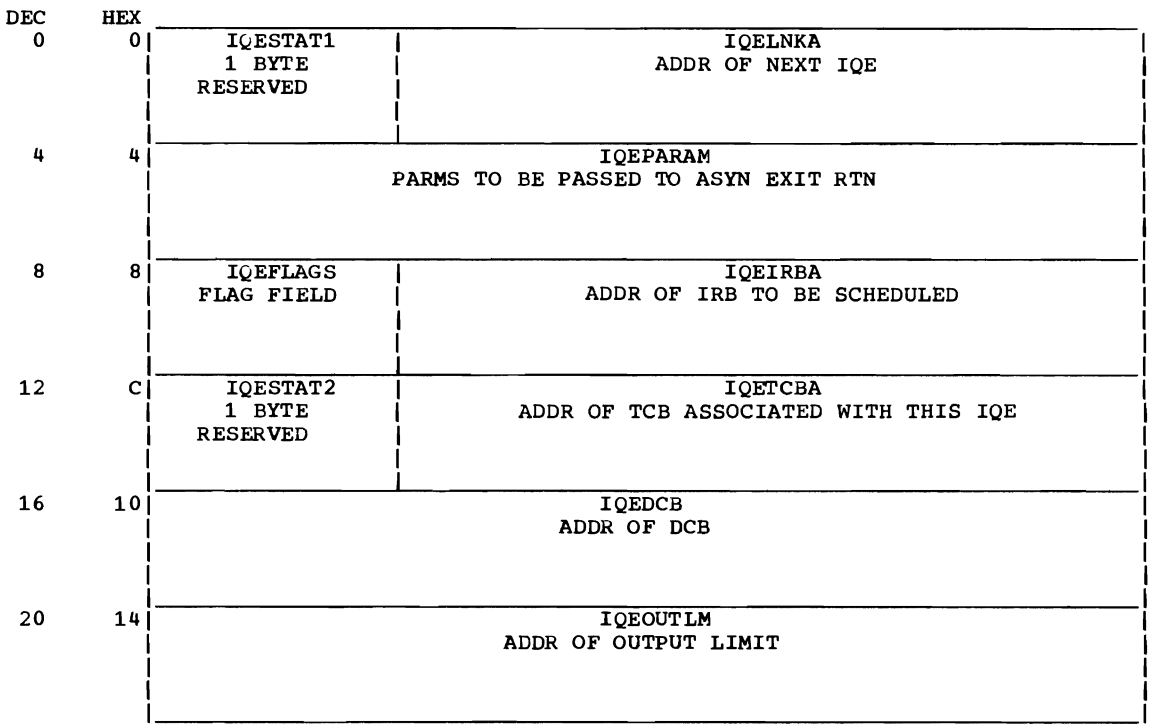
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
INFFLG	FLAG BYTE	INFFLG0	X'80'	WHEN 1, INDICATES BRANCH ENTRY
INFRCL	REASON CODE AND COUNT OF VARIABLE DATA.	INFCL	X'E0'	REASON CODE ON BITS 0-2
		INFVARCT	X'1F'	COUNT OF VARIABLE DATA IN BITS 3-7

IQE (Interruption Queue Element)

Total size: 24 bytes
Created by: ATTACH routine
Purpose: Used by Stage 2 and Stage 3 Exit Effectors to schedule the execution of an ETXR (end-of-task exit routine).

STORAGE MAP OF IQE



DISPLACEMENT LIST OF FIELDS IN IQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	IQESTAT1	0008	0008	IQEIRB	0016	0010	IQEDCB	
0000	0000	IQELNK	0009	0009	IQEIRBA	0020	0014	IQEOUTLM	
0001	0001	IQELNKA	0012	000C	IQESTAT2	0024	0018	IQELEN	(EQU)
0004	0004	IQEPARAM	0012	000C	IQETCB	0024	0018	IQEEND	
0008	0008	IQEFLAGS	0013	000D	IQETCBA				

ALPHABETICAL LIST OF FIELDS IN IQE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
IQEDCB	0016	0010	IQELEN	0024	0018	(EQU)	IQESTAT1	0000	0000
IQEEND	0024	0018	IQELNK	0000	0000		IQESTAT2	0012	000C
IQEFLAGS	0008	0008	IQELNKA	0001	0001		IQETCB	0012	000C
IQEIRB	0008	0008	IQEOUTLM	0020	0014		IQETCBA	0013	000D
IQEIRBA	0009	0009	IQEPARAM	0004	0004				

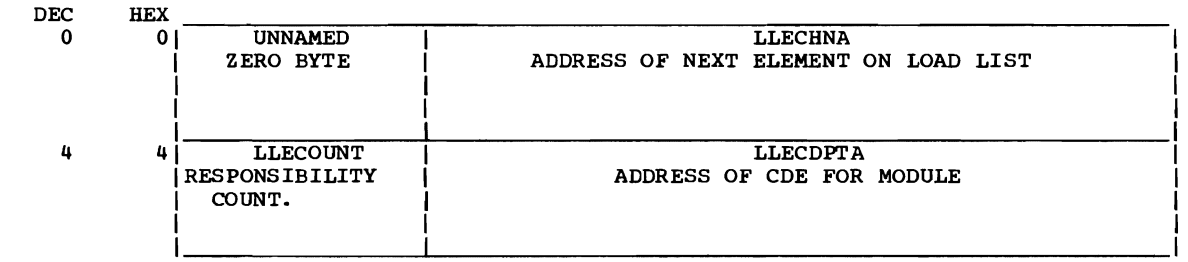
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
IQEFLAGS	FLAG FIELD	IQEPURGE	X'80'	THIS IQE MUST NOT BE SCHEDULED

LLE (Load List Element)

Total size: 8 bytes
Created by: CDLDRET routine
Purpose: Each LLE corresponds to a loaded module and points to a CDE (contents directory entry) for that module. Each LLE contains a count of the number of times its corresponding module has been allocated via the LOAD routine. This is called the responsibility count.

STORAGE MAP OF LLE



DISPLACEMENT LIST OF FIELDS IN LLE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	LLECHN	0004	0004	LLECOUNT	0005	0005	LLECDPTA
0001	0001	LLECHNA	0004	0004	LLECDPT			

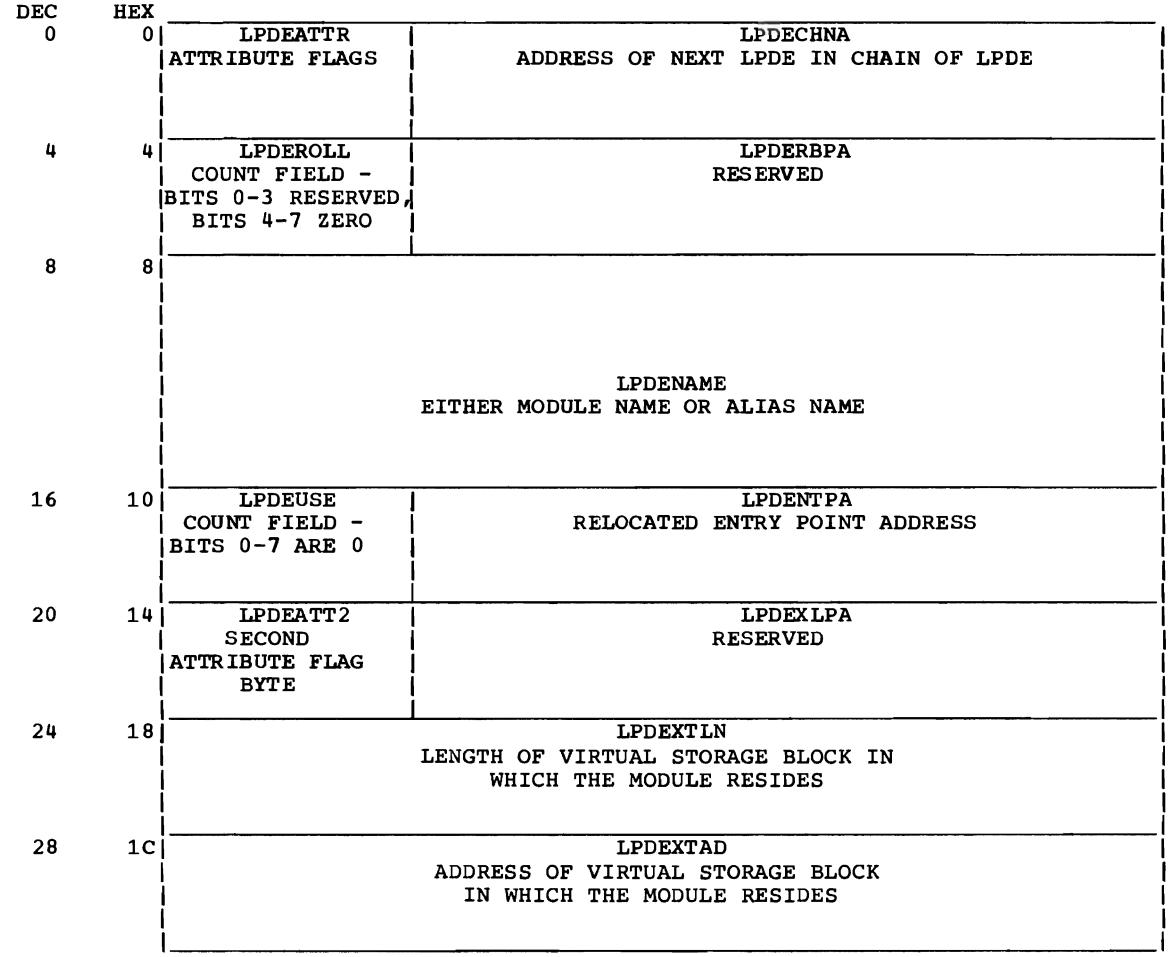
ALPHABETICAL LIST OF FIELDS IN LLE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
LLECDPT	0004	0004	LLECHN	0000	0000	LLECOUNT	0004	0004
LLECDPTA	0005	0005	LLECHNA	0001	0001			

LPDE (Link Pack Directory Entry)

Total size: 32 bytes
Created by: NIP
Purpose: Contains the same information that can be used to build a CDE (contents directory entry) and an extent list when an LPA module that has been paged out is requested. LPDEs are built by NIP, and are in the pageable LPA.

STORAGE MAP OF LPDE



DISPLACEMENT LIST OF FIELDS IN LPDE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	LPDEATTR	0008	0008	LPDENAME	0021	0015	LPDEXLPA
0000	0000	LPDECHN	0016	0010	LPDEUSE	0024	0018	LPDEXTLN
0001	0001	LPDECHNA	0016	0010	LPDENTP	0024	0018	LPDEMJNM
0004	0004	LPDEROLL	0017	0011	LPDENTPA	0028	001C	LPDEXTAD
0004	0004	LPDERBP	0020	0014	LPDEATT2			
0005	0005	LPDERBPA	0020	0014	LPDEXLP			

ALPHABETICAL LIST OF FIELDS IN LPDE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
LPDEATTR	0000	0000	LPDENTP	0016	0010	LPDEXLP	0020	0014
LPDEATT2	0020	0014	LPDENTPA	0017	0011	LPDEXLPA	0021	0015
LPDECHN	0000	0000	LPDERBP	0004	0004	LPDEXTAD	0028	001C
LPDECHNA	0001	0001	LPDERBPA	0005	0005	LPDEXTLN	0024	0018
LPDEMJNM	0024	0018	LPDEROLL	0004	0004			
LPDENAME	0008	0008	LPDEUSE	0016	0010			

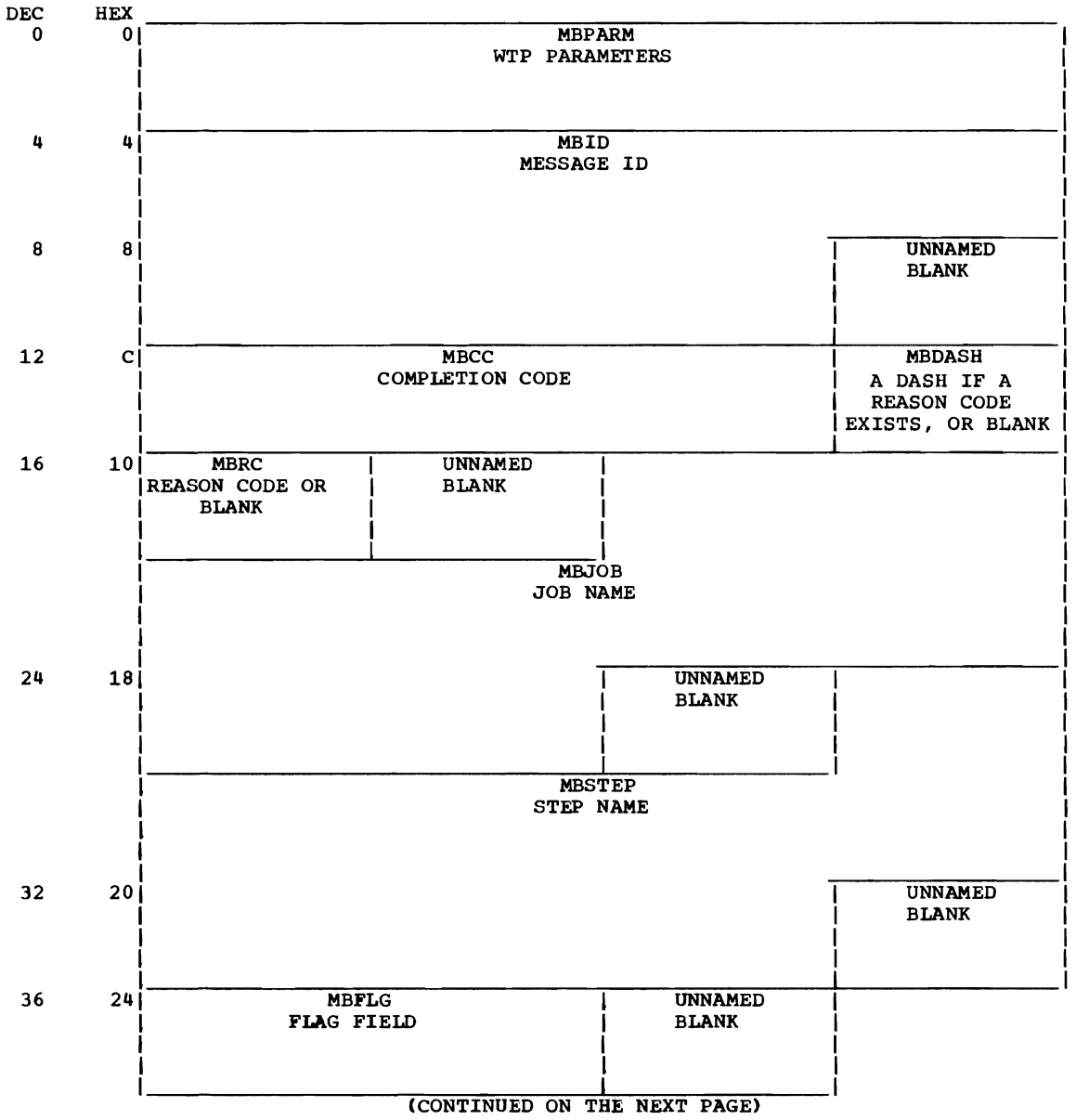
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
LPDEATTR	ATTRIBUTE FLAGS	LPDENIP	X'80'	MODULE LOADED BY NIP
		LPDERS01	X'40'	RESERVED
		LPDEREN	X'20'	MODULE IS REENTERABLE
		LPDESER	X'10'	MODULE IS SERIALLY REUSABLE
		LPDERS02	X'08'	RESERVED
		LPDEMIN	X'04'	THIS IS A MINOR LPDE
		LPDERS03	X'02'	RESERVED
		LPDENLR	X'01'	NOT LOADABLE ONLY
LPDEATT2	SECOND ATTRIBUTE FLAG BYTE	LPDEAUTH	X'80'	PROGRAM AUTHORIZATION FLAG ICB360
		LPDERS04	X'40'	RESERVED
		LPDEXLE	X'20'	EXTENT LIST BUILT - DESCRIBES VIRTUAL STORAGE OCCUPIED BY MODULE
		LPDERLC	X'10'	LPDE CONTAINS A RELOCATED ALIAS ENTRY POINT ADDRESS
		LPDERS05	X'08'	RESERVED
		LPDERS06	X'04'	RESERVED
		LPDERS07	X'02'	RESERVED
		LPDERS08	X'01'	RESERVED

MB (Message Buffer)

Total size: 74 bytes
Created by: ABEND or Contents Supervision
Purpose: Used as a structure for building and writing standard messages.

STORAGE MAP OF MB



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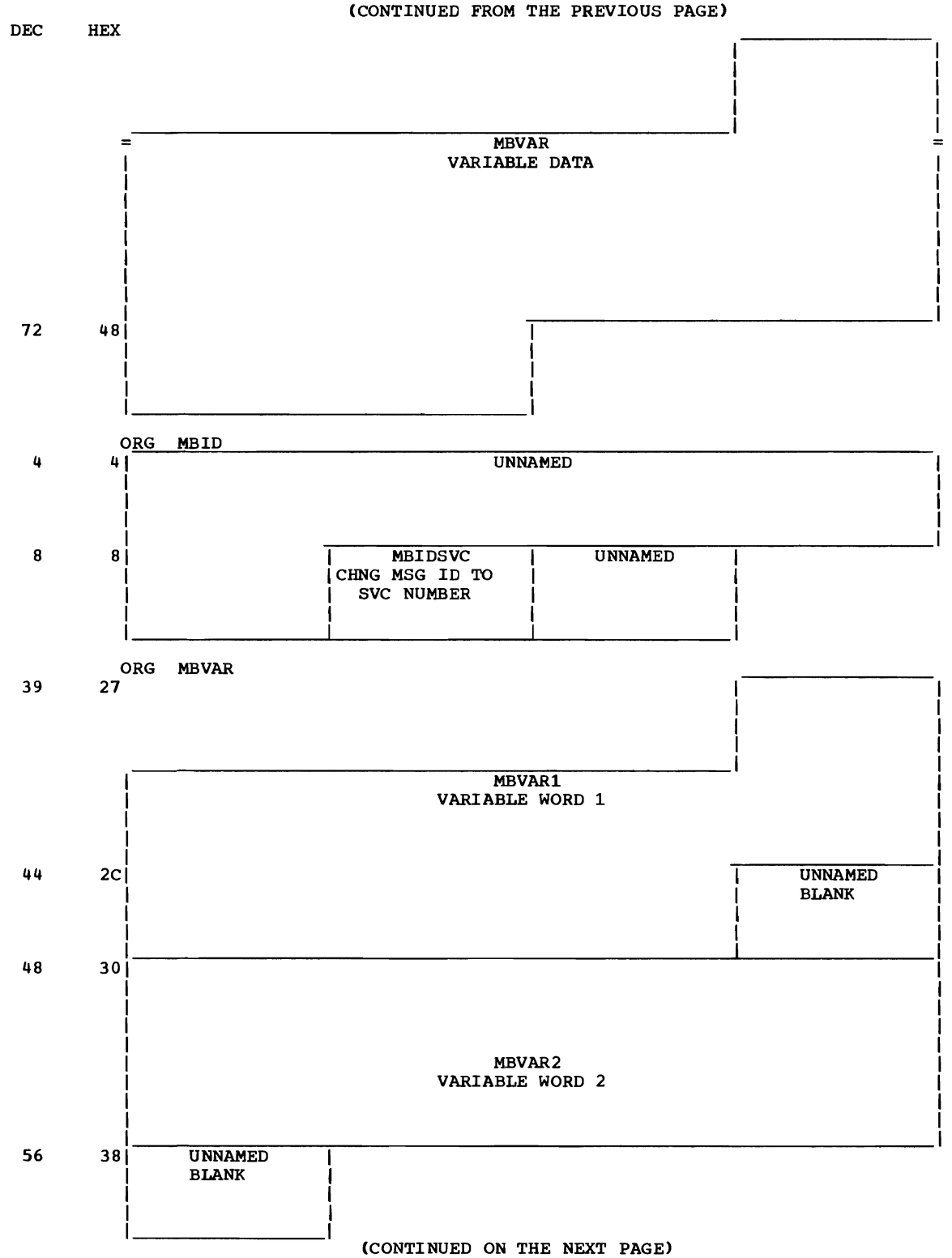

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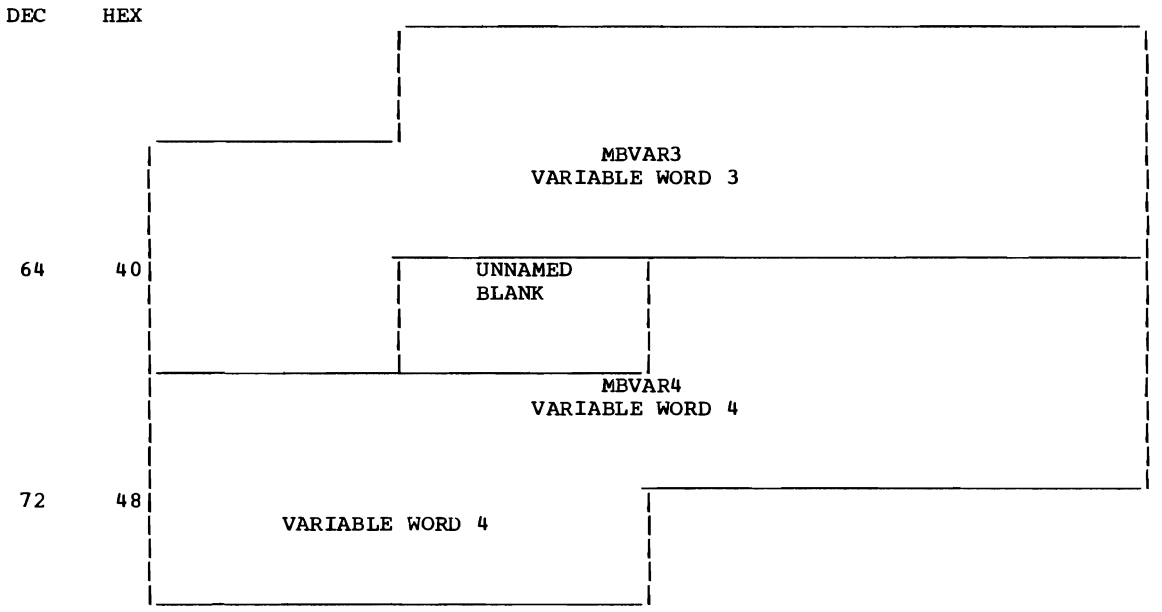


DISPLACEMENT LIST OF FIELDS IN MB

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	MBPARM	0018	0012	MBJOB	0057	0039	MBVAR3	
0004	0004	MBID	0027	001B	MBSTEP	0066	0042	MBVAR4	
0009	0009	MBIDSVC	0036	0024	MBFLG	0074	004A	MBLENGTH	(EQU)
0012	000C	MBCC	0039	0027	MBVAR1	0074	004A	MBEND	(EQU)
0015	000F	MBDASH	0039	0027	MBVAR				
0016	0010	MBRC	0048	0030	MBVAR2				

ALPHABETICAL LIST OF FIELDS IN MB

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX
MBCC	0012	000C		MBJOB	0018	0012		MBVAR1	0039	0027
MBDASH	0015	000F		MBLENGTH	0074	004A	(EQU)	MBVAR2	0048	0030
MBEND	0074	004A	(EQU)	MBPARM	0000	0000		MBVAR3	0057	0039
MBFLG	0036	0024		MBRC	0016	0010		MBVAR4	0066	0042
MBID	0004	0004		MBSTEP	0027	001B				
MBIDSVC	0009	0009		MBVAR	0039	0027				

PCB (Page Control Block)

Total size: 32 bytes
Created by: Build PCB (IEAPCB)
Purpose: Controls the movement of a paging request between the various modules of the paging supervisor.

STORAGE MAP OF PCB

DEC	HEX			
0	0	PCBCQN CURRENT QUEUE NUMBER	PCBFQP POINTER TO NEXT PCB	
4	4	PCBNQN NEXT PCB QUEUE NUMBER	PCBBQP POINTER TO PRECEEDING PCB	
8	8	PCBFL1 FLAG BYTE	PCBRTP ROOT PCB POINTER/TCB POINTER	
12	C	PCBFXC FIX COUNT	PCBRLP RELATED PCB POINTER	
16	10	PCBPTY TCB DISPATCHING PRIORITY	PCBXPT VIRTUAL STORAGE ADDRESS OF EXTERNAL PAGE TABLE ENTRY	
20	14	PCBFL2 SECOND FLAG FIELD	PCBPTE VIRTUAL STORAGE ADDRESS OF PAGE TABLE ENTRY	
24	18	PCBRBN REAL STORAGE BLOCK NUMBER (LEFT-ADJUSTED WITH 4 LOW-ORDER ZEROS)		PCBVBN VIRTUAL STORAGE BLOCK NUMBER (LEFT-ADJUSTED WITH 4 LOW-ORDER ZEROS)
28	1C	PCBDEV WHEN PCBDADDF = 1, DEVICE TYPE RB POINTER	PCBSLOT WHEN PCBDADDF = 1, SLOT NUMBER WITHIN GROUP	PCBGROUP WHEN PCBDADDF = 1, GROUP NUMBER END OF PAGE CONTROL BLOCK

DISPLACEMENT LIST OF FIELDS IN PCB

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	PCBDEQ	(EQU)	0007	0007	PCBDPSTQ	(EQU)	0020	0014	PCBPTEF	
0000	0000	PCBCQN		0008	0008	PCBFL1		0021	0015	PCBPTE	
0000	0000	PCBFQPF		0008	0008	PCBRTPF		0024	0018	PCBRBN	
0001	0001	PCBPOST	(EQU)	0008	0008	PCBTSKPQ	(EQU)	0026	001A	PCBVBN	
0001	0001	PCBFQP		0009	0009	PCBRTP		0028	001C	PCBDEV	
0001	0001	PCBALLOC	(EQU)	0009	0009	PCBACT	(EQU)	0028	001C	PCBSP2	
0002	0002	PCBAUX	(EQU)	0010	000A	PCBFREE	(EQU)	0028	001C	PCBDADD	
0003	0003	PCBINIT	(EQU)	0012	000C	PCBFXC		0029	001D	PCBSLOT	
0004	0004	PCBNQN		0012	000C	PCBRLPF		0029	001D	PCBRBP	
0004	0004	PCBBQPF		0013	000D	PCBRLP		0030	001E	PCBGROUP	
0004	0004	PCBMIGQ	(EQU)	0016	0010	PCBPTY		0032	0020	PCBLEN	(EQU)
0005	0005	PCBBQP		0016	0010	PCBXPTF		0032	0020	PCBEND	
0005	0005	PCBSWAP	(EQU)	0017	0011	PCBXPT					
0006	0006	PCBSRRQ	(EQU)	0020	0014	PCBFL2					

ALPHABETICAL LIST OF FIELDS IN PCB

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
PCBACT	0009	0009	(EQU)	PCBFQPF	0000	0000		PCBRLP	0013	000D	
PCBALLOC	0001	0001	(EQU)	PCBFREE	0010	000A	(EQU)	PCBRLPF	0012	000C	
PCBAUX	0002	0002	(EQU)	PCBFXC	0012	000C		PCBRTP	0009	0009	
PCBBQP	0005	0005		PCBGROUP	0030	001E		PCBRTPF	0008	0008	
PCBBQPF	0004	0004		PCBINIT	0003	0003	(EQU)	PCBSLOT	0029	001D	
PCBCQN	0000	0000		PCBLEN	0032	0020	(EQU)	PCBSP2	0028	001C	
PCBDADD	0028	001C		PCBMIGQ	0004	0004	(EQU)	PCBSRRQ	0006	0006	(EQU)
PCBDEQ	0000	0000	(EQU)	PCBNQN	0004	0004		PCBSWAP	0005	0005	(EQU)
PCBDEV	0028	001C		PCBPOST	0001	0001	(EQU)	PCBTSKPQ	0008	0008	(EQU)
PCBDPSTQ	0007	0007	(EQU)	PCBPTE	0021	0015		PCBVBN	0026	001A	
PCBEND	0032	0020		PCBPTEF	0020	0014		PCBXPT	0017	0011	
PCBFL1	0008	0008		PCBPTY	0016	0010		PCBXPTF	0016	0010	
PCBFL2	0020	0014		PCBRBN	0024	0018					
PCBFQP	0001	0001		PCBRBP	0029	001D					

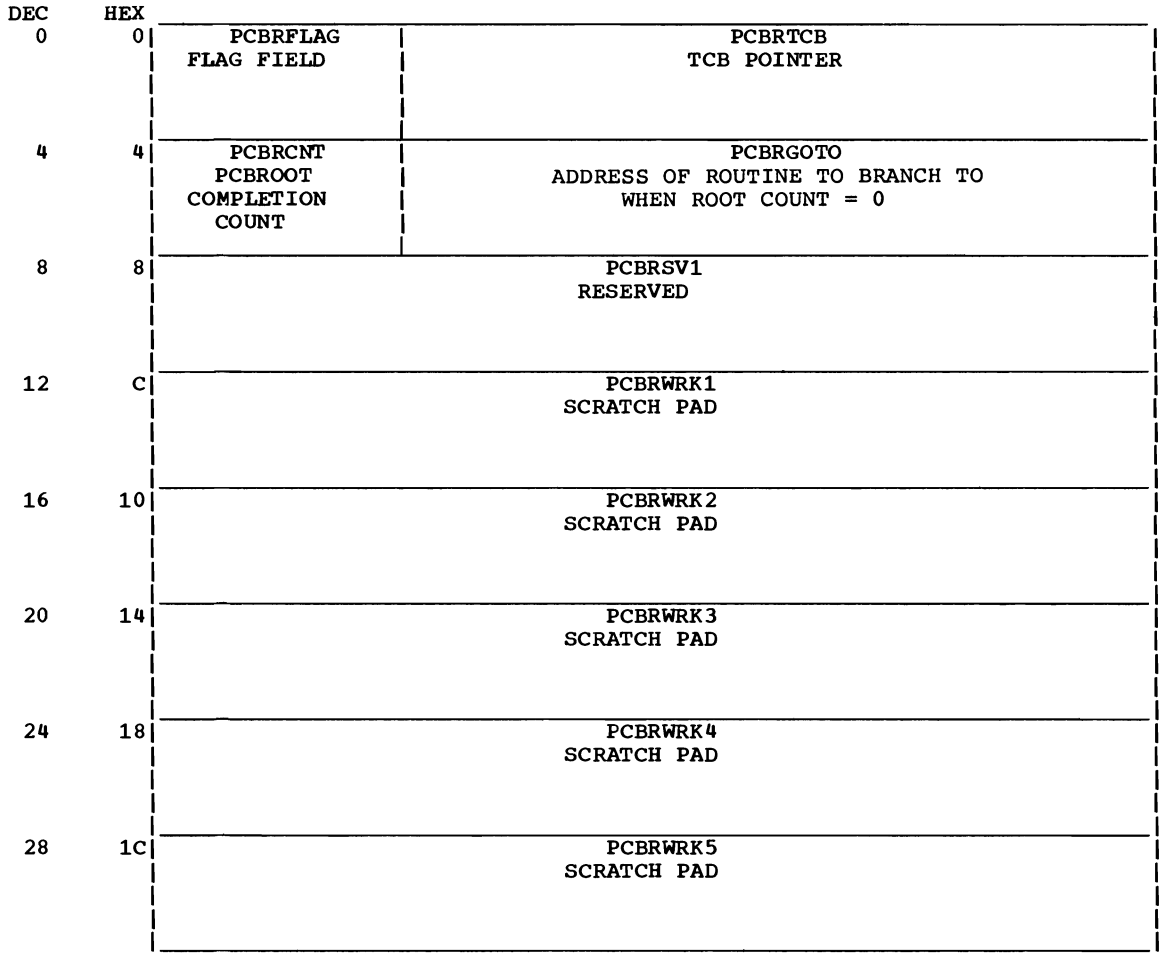
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PCBFL1	FLAG BYTE	PCBPEX	X'40'	PAGE EXCEPTION FLAG, WHEN 1 = THIS PCB IS FOR A MISSING PAGE INTERRUPTION
		PCBDPF	X'20'	DISABLED PAGE FAULT FLAG SET IN CONJUNCTION WITH PCBPEX WHEN MISSING PAGE INTERRUPTION OCCURED IN DISABLED STATE
		PCBLFR	X'08'	LONG FIX REQUEST FLAG
		PCBTCF	X'04'	WHEN 0, INDICATES THAT PCBRTP IS A ROOT PCB POINTER; WHEN 1, INDICATES THAT PCBRTP IS A TCB POINTER
		PCBIOI	X'02'	I/O IN, I/O OUT FLAG, WHEN 1 = PAGE-IN, WHEN 0 = PAGE-OUT
		PCBIOCMP	X'01'	WHEN 1 = I/O COMPLETE FOR THIS PCB
PCBFL2	SECOND FLAG FIELD	PCBDADDF	X'80'	DIRECT PAGE OUT FLAG WHEN 1 = PCBADD CONTAINS A DIRECTED EXTERNAL STORAGE ADDRESS
		PCBMIG	X'40'	MIGRATION FLAG, WHEN 1 = THIS PCB IS A MIGRATION PCB
		PCBYHTC	X'20'	WHEN 1 = I/O ASSOCIATED WITH THIS PCB HAS A PERMANENT ERROR
		PCBSKIP	X'10'	WHEN 1 = ROUTE PCB TO TASK POST QUEUE
		PCBRIP	X'08'	RELEASE IN POST FLAG, WHEN 1 = DESTROY REAL ADDRESS IN PAGE TABLE IF PCBRBN IS NOT ZERO AND DESTROY ENCODED XPT SLOT IF DIRECTED XPT IS IN PCBDADD
		PCBDFCLR	X'04'	DEFERRED CLEAR FLAG, WHEN 1 = TURN ON PFTDFCLR AFTER ALLOCATING PFTE
		PCBNOP	X'02'	NO OP FLAG, WHEN 1 = DO NOT WAIT COUNT IN RB OR ACCESS TCB
		PCBSWP	X'01'	WHEN 1, PFTE ASSICIATED WITH THIS PAGE-OUT OPERATION GOES TO TOP OF AVAILABLE QUEUE

PCBROOT (Root PCB)

Total size: 32 bytes
Created by: Build PCB (IEAPCB)
Purpose: Controls the posting of a logically related operation for "n" pages, the posting of which cannot take place until all "n" paging operations have completed.

STORAGE MAP OF PCBROOT



DISPLACEMENT LIST OF FIELDS IN PCBROOT

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	PCBRFLAG	0005	0005	PCBRGOTO	0024	0018	PCBRWRK4	
0000	0000	PCBRTCBF	0008	0008	PCBRSV1	0028	001C	PCBRWRK5	
0001	0001	PCBRTCB	0012	000C	PCBRWRK1	0032	0020	PCBRLEN	(EQU)
0004	0004	PCBRCNT	0016	0010	PCBRWRK2	0032	0020	PCBREND	
0004	0004	PCBRGOTF	0020	0014	PCBRWRK3				

ALPHABETICAL LIST OF FIELDS IN PCBROOT

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
PCBRCNT	0004	0004	PCBRLEN	0032	0020	(EQU)	PCBRWRK2	0016	0010
PCBREND	0032	0020	PCBRSV1	0008	0008		PCBRWRK3	0020	0014
PCBRFLAG	0000	0000	PCBRTCB	0001	0001		PCBRWRK4	0024	0018
PCBRGOTF	0004	0004	PCBRTCBF	0000	0000		PCBRWRK5	0028	001C
PCBRGOTO	0005	0005	PCBRWRK1	0012	000C				

FLAGS AND MASKS

FLAG	CONTAINS
PCBRFLAG	FLAG FIELD

MASK	VALUE	MEANS
PCBRINT	X'40'	INTERCEPTED ROOT FLAG
PCBRRAO	X'20'	REAL ADDRESS OPTION FLAG
PCBRQED	X'10'	WHEN 1 = THIS ROOT IS QUEUED; DO NOT DESTROY IT
PCBRAB	X'08'	WHEN 1 = ABEND INTERCEPT OF ROOT ON DELAY QUEUE
PCBRFAIL	X'04'	WHEN 1 = PAGE-IN FAILURE

PDITE (Page Device Information Table Entry)

Total size: Variable
Created by: NIP
Purpose: Used by the paging supervisor to identify the characteristics and status of each device on which parts of the page data set resides. It contains the IOB and slot queue for each exposure on each device and the DEB for the first exposure.

STORAGE MAP OF PDITE

DEC	HEX				
0	0	IOBCFLG1 FLAG BYTE PCI, RESTART CHANNEL, AND ABNORMAL END FLAGS	IOBRSV05 RESERVED	IOBCINOP OFFSET FROM ICB OF LAST INPUT I/O COMMAND (NOP CCW)	IOBCONOP OFFSET FROM ICB OF LAST OUTPUT I/O COMMAND (NOP CCW)
4	4	IOBCECB ADDRESS OF EVENT CONTROL BLOCK			
8	8	IOBCICB ADDR OF FIRST ICB ON QUEUE			
12	C	IOBCNOPA ADDR OF NOP COMMAND AT END OF ICB QUEUE			
16	10	IOBFLAG1 FLAG BYTE CONTAINS I/O INFORMATION	IOBFLAG2 FLAG BYTE CONTAINS I/O INFORMATION	IOBSENS0 FIRST SENSE BYTE	IOBSENS1 SECOND SENSE BYTE
20	14	IOBECBCC COMPLETION CODE FOR THIS I/O REQUEST	IOBECBPB ADDRESS OF ECB TO BE POSTED ON I/O COMPLETION		
24	18	IOBFLAG3 ERROR ROUTINE FLAG BYTE			
		IOBCSW LOW ORDER 7 BYTES OF CSW AT CHANNEL END			
32	20	IOBSIOCC BITS 2 AND 3 = COMP CODE FROM SIO	IOBSTRTB ADDRESS OF CHANNEL PROGRAM		
36	24	IOBRSV36 RESERVED	IOBDCBPB ADDRESS OF DATA CONTROL BLOCK FOR THIS IOB		
40	28	IOBREPOS CODE USED TO REPOSITION DEVICE	IOBRSTRB RESTART ADDRESS FOR ERROR RETRY		

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DEC	HEX				
44	2C	IOBBTAMF FLAG BYTE FOR BTAM	IOBRSV19 RESERVED	IOBERRCT NUMBER OF ERROR RETRIES	
48	30	IOBM RELATIVE EXTENT NUMBER FOR THIS REQUEST(0-15)	IOBBB1 DATA CELL BIN NUMBER	IOBBB2 DATA CELL BIN NUMBER	IOBCC1 CYLINDER NUMBER
52	34	IOBCC2 CYLINDER NUMBER	IOBHH1 TRACK NUMBER	IOBHH2 TRACK NUMBER	IOBR RECORD NUMBER
56	38	IOBERCCW CCW AREA USED BY BTAM ERROR ROUTINES			
64	40	IOBERINF ERROR INFORMATION FIELD USED BY BTAM ERROR RTN			
80	50	IOBCPA WORK AREA FOR CHANNEL PROGRAMS			
88	58	IOBDNCRF COUNT FIELD FOR NEW BLOCK			

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DEC	HEX		
96	60	ORG OVERLAP	
112	70	PDITECB ADDRESS OF ECB FOR THIS DEVICE	
116	74	PDITDCB ADDRESS OF DCB FOR THIS DEVICE	
120	78	PDITSCNT COUNT OF SLOT QUEUES FOR	PDIT1SQA ADDRESS OF SLOT QUEUE FOR FOR FIRST SLOT OF THIS DEVICE
124	7C	PDITSQCT COUNT OF CHANNEL PROGRAMS ON SLOT QUEUE WITH MOST CPQES	PDITHSQA ADDRESS OF SLOT QUEUE CONTAINING THE MOST CHANNEL PROGRAMS FOR THIS DEVICE
		ORG IOBPREFX+8	BSAM, QSAM, AND BPAM PREFIX
8	8	IOBNFLG1 FLAG BYTE	IOBNIOBB ADDR OF NEXT IOB ON CHAIN
12	C	IOBNECB EVENT CONTROL BLOCK	
		ORG IOBPREFX+8	BDAM PREFIX
8	8	IOBDEQIN DEQUEUE LOOP INDICATOR	IOBDQADB ADDR OF IOB WAITING TO DEQUEUE TRACKS OCCUPIED BY SPANNED RECORDS
12	C	IOBSWAP ADDR OF SPANNED WORK AREA	

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DEC	HEX	
		ORG IOBPREFX+12 GAM AND QUISAM PREFIX
12	C	IOBGQECB ADDRESS OF EVENT CONTROL BLOCK
		ORG IOBINCAM
44	2C	IOBCRDCC: OPTICAL READER: DATA CHECK ERROR COUNT IOBCRILC: OPTICAL READER: INCORRECT LENGTH ERROR COUNT
		ORG IOBEXTEN * * BTAM EXTENSION ** 40 BYTES + CHNL.PGM
48	30	IOBUCBX: LINE NUMBER IS USED TO LOCATE THE PROPER UCB ADDRESS IN DEB IOBWORK: WORK AREA USED BY ERROR ROUTINES AND ON-LINE TERMINAL ROUTINES
52	34	IOBRCVPT: RECEIVED ACK (ACK-0 OR ACK-1) IOBSNDPT: SENT ACK (ACK-0 OR ACK-1)
		ORG IOBSEEK+8 * * BISAM EXTENSION *** 16 BYTES
56	38	IOBCCWAD FOR FIXED-LENGTH RECORDS, POINTS TO FIRST CCW. FOR VARIABLE LENGTH RECORDS, POINTS TO BUFFER AFTER COMPLETION OF READ FOR UPDATE.
60	3C	IOBINDCT: FLAG BYTE IOBUNSQR: REASON FOR UNSCHEDULED QUEUE IOBAPP: APPENDAGE CODE IOBASYN: ASYNCHRONOUS ROUTINE CODE
64	40	IOBCOUNT: WRITE CHECK COUNTER IOBFCHNB: FORWARD CHAIN ADDRESS
68	44	IOBBCHAD BACKWARD CHAIN ADDRESS
		ORG IOBEXTEN * * GAM EXTENSION *** 40 BYTES
48	30	IOBUCBXG: UCB INDEX IOBRSV37: RESERVED
52	34	IOBSTATA: STATUS SWITCH IOBNXTPB: PTR TO NEXT AVAILABLE IOB

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DEC	HEX				
56	38	IOBCCW CHANNEL COMMAND WORDS USED TO TRANSFER DATA			

ORG IOBSEEK+8 * * QISAM EXTENSION *** 2 BYTES

56	38	W1OEXTEN APPENDAGE CODES			

ORG IOBSEEK+8 * * BDAM EXTENSION ** 40 BYTES + CHNL.PGM

56	38	IOBDBYTR NUMBER OF UNUSED BYTES ON TRACK		IOBDIOBS OVERALL SIZE OF THE IOB	
60	3C	IOBDAYLI ALL BITS ZERO INDICATE AVAILABILITY OF IOB	IOBDPLB ADDRESS OF NEXT IOB IN POOL OF IOB'S		
64	40	IOBDTYPE TYPE OF REQUEST AND SPECIFIED OPTIONS	IOBDTYP2 SECOND BYTE OF OPTIONS AND REQUESTS	IOBSTAT1 FLAG BYTE	IOBSTAT2 ERROR CODE FOR ABNORMAL COMPLETION USED AS ECB POST CODE
68	44	IOBDCPND ADDRESS OF LOCATION WHERE CHANNEL END PROGRAM SHOULD END			
72	48	IOBDBYTN NUMBER OF BYTES NEEDED ON A TRACK TO WRITE A NEW BLOCK		IOBRSV34 RESERVED	
76	4C	IOBDQPTR PTR TO IOB FOR NEXT I/O OPERATION TO EXECUTE			
80	50	IOBRSV35 RESERVED			

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ORG IOBSEEK+8 * * NEW ACCESS METHOD EXTENSION - 24 BYTES

DEC	HEX			
56	38	IOBSK2M EXTENT NUMBER ICB435	IOBSK2BB BIN NUMBER	IOBSK2CC CYLINDER NUMBER ICB435
60	3C	IOBSK2CC(CONT)	IOBSK2HH HEAD NUMBER	IOBSK2R RECORD NUMBER ICB435
64	40	IOBBUFC ADDRESS OF ASSOCIATED BUFFER CONTROL BLOCK		
68	44	IOBREADA ADDRESS OF FIRST UNDONE READ CHANNEL PROGRAM		
72	48	IOBNEXTA ADDRESS OF NEXT ACTIVE IOB ICB435		
76	4C	IOBRDCHP ADDRESS OF READ CHANNEL PROGRAM ICB435		

ORG IOBSEEK+8 NON-IOB FIELDS

DEC	HEX			
56	38	PDITFLG1 FLAG FIELD	PDITINDX APPARENT INDEX FOR PDITE BASE (IOB-PDITINDX*4= BASE IOB ADDRESS)	PDITIOBP INDEX TO BE ADDED TO CURRENT IOBC TO FIND NEXT IOB
60	3C	PDITCPCT COUNT OF CHANNEL PROGRAMS CHAINED TO THIS IOB AFTER A PCI	PDITLACP ADDRESS OF LAST CHANNEL PROGRAM ON ACTIVE CHAIN FOR THIS IOB	

ORG PDITLACP+3

DEC	HEX	
64	40	= PDITDEB DEB FOR THIS DEVICE (30 BYTES) =

DISPLACEMENT LIST OF FIELDS IN PDITE

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	IOBCFLG1		0040	0028	IOBRESTR		0060	003C	PDITCPCT	
0000	0000	IOBBPAMC		0041	0029	IOBRSTRB		0060	003C	PDITLACF	
0000	0000	IOBBSAMC		0044	002C	IOBCRDCC		0060	003C	IOBDAYLI	
0000	0000	IOBQSAMC		0044	002C	IOBBTAMF		0060	003C	IOBDPLAD	
0000	0000	IOBPREFX		0044	002C	IOBINCAM		0060	003C	IOBINDCT	
0000	0000	IOB	(EQU)	0045	002D	IOBCRILC		0061	003D	PDITLACP	
0001	0001	IOBRSV05		0045	002D	IOBRSV19		0061	003D	IOBSK2HH	
0002	0002	IOBCINOP		0046	002E	IOBERRCT		0061	003D	IOBDPLB	
0003	0003	IOBCONOP		0048	0030	IOBUCBXG		0061	003D	IOBUNSQR	
0004	0004	IOBCECB		0048	0030	IOBUCBX		0062	003E	IOBAPP	
0008	0008	IOBDEQIN		0048	0030	PDITCOMN	(EQU)	0063	003F	IOBSK2R	
0008	0008	IOBDQADA		0048	0030	IOBM		0063	003F	IOBASYN	
0008	0008	IOBBDAM		0048	0030	IOBSEEK		0064	0040	PDITDEB	
0008	0008	IOBNFLG1		0048	0030	IOBEXTEN		0064	0040	IOBBUFC	
0008	0008	IOBNIOBA		0049	0031	IOBRSV37		0064	0040	IOBDTYPE	
0008	0008	IOBBPAMN		0049	0031	IOBWORK		0064	0040	IOBCOUNT	
0008	0008	IOBBSAMN		0049	0031	IOBBB1		0064	0040	IOBFCHAD	
0008	0008	IOBQSAMN		0049	0031	IOBBB		0064	0040	IOBERINF	
0008	0008	IOBCICB		0050	0032	IOBBB2		0065	0041	IOBDTYP2	
0009	0009	IOBDQADB		0051	0033	IOBCC1		0065	0041	IOBFCHNB	
0009	0009	IOBNIOBB		0051	0033	IOBCC		0066	0042	IOBSTAT1	
0012	000C	IOBGQECB		0052	0034	IOBSTATA		0066	0042	IOBDSTAT	
0012	000C	IOBSWAP		0052	0034	IOBNXTPT		0067	0043	IOBSTAT2	
0012	000C	IOBNECB		0052	0034	IOBCC2		0068	0044	IOBREADA	
0012	000C	IOBQISAM	(EQU)	0053	0035	IOBNXTPB		0068	0044	IOBDCPND	
0012	000C	IOBGAM	(EQU)	0053	0035	IOBHH1		0068	0044	IOBBCHAD	
0012	000C	IOBCNOPA		0053	0035	IOBHH		0072	0048	IOBNEXTA	
0016	0010	PDITE	(EQU)	0054	0036	IOBRCVPT		0072	0048	IOBDBYTN	
0016	0010	IOBFLAG1		0054	0036	IOBHH2		0074	004A	IOBRSV34	
0016	0010	IOBSTDRD		0055	0037	IOBSNDPT		0076	004C	IOBRDCHP	
0017	0011	IOBFLAG2		0055	0037	IOBR		0076	004C	IOBDQPTR	
0018	0012	IOBSENS0		0056	0038	PDITFLG1		0080	0050	IOBRSV35	
0019	0013	IOBSENS1		0056	0038	IOBSK2M		0080	0050	IOBCPA	
0020	0014	IOBECBCC		0056	0038	IOBSEEK2		0088	0058	IOBDNCRF	
0020	0014	IOBECBPT		0056	0038	IOBDBYTR		0096	0060	IOBCHNPR	
0021	0015	IOBECBPB		0056	0038	W1OEXTEN		0112	0070	PDITLEN	(EQU)
0024	0018	IOBFLAG3		0056	0038	W1IEXTEN		0112	0070	PDITECB	
0025	0019	IOBCSW		0056	0038	IOBCCW		0116	0074	PDITDCB	
0032	0020	IOBSIOCC		0056	0038	IOBCCWAD		0120	0078	PDITSCNT	
0032	0020	IOBSTART		0056	0038	IOBERCCW		0120	0078	PDIT1SQ	
0033	0021	IOBSTRTB		0057	0039	PDITINDX		0121	0079	PDIT1SQA	
0036	0024	IOBRSV36		0057	0039	IOBSK2BB		0124	007C	PDITSQCT	
0036	0024	IOBDCBPT		0058	003A	PDITIOBP		0124	007C	PDITHSQ	
0037	0025	IOBDCBPB		0058	003A	IOBDIOBS		0125	007D	PDITHSQA	
0040	0028	IOBREPOS		0059	003B	IOBSK2CC		0128	0080	PDITEND	

ALPHABETICAL LIST OF FIELDS IN PDITE

FIELD	DEC	HEX		FIELD	DEC	HEX	FIELD	DEC	HEX
IOB	0000	0000	(EQU)	IOBCC2	0052	0034	IOBDCPND	0068	0044
IOBAPP	0062	003E		IOBCECB	0004	0004	IOBDEQIN	0008	0008
IOBASYN	0063	003F		IOBCFLG1	0000	0000	IOBDIOBS	0058	003A
IOBBB	0049	0031		IOBCHNPR	0096	0060	IOBDNCRF	0088	0058
IOBBB1	0049	0031		IOBCICB	0008	0008	IOBDPLAD	0060	003C
IOBBB2	0050	0032		IOBCINOP	0002	0002	IOBDPLB	0061	003D
IOBBCHAD	0068	0044		IOBCNOPA	0012	000C	IOBDQADA	0008	0008
IOBBDAM	0008	0008		IOBCONOP	0003	0003	IOBDQADB	0009	0009
IOBBPAMC	0000	0000		IOBCOUNT	0064	0040	IOBDQPTR	0076	004C
IOBBPAMN	0008	0008		IOBCPA	0080	0050	IOBDSTAT	0066	0042
IOBBSAMC	0000	0000		IOBCRDCC	0044	002C	IOBDTYPE	0064	0040
IOBBSAMN	0008	0008		IOBCRILC	0045	002D	IOBDTYP2	0065	0041
IOBBTAMF	0044	002C		IOBCSW	0025	0019	IOBECBCC	0020	0014
IOBBUFC	0064	0040		IOBDAYLI	0060	003C	IOBECBPB	0021	0015
IOBCC	0051	0033		IOBDBYTN	0072	0048	IOBECBPT	0020	0014
IOBCCW	0056	0038		IOBDBYTR	0056	0038	IOBERCCW	0056	0038
IOBCCWAD	0056	0038		IOBDCBPB	0037	0025	IOBERINF	0064	0040
IOBCC1	0051	0033		IOBDCBPT	0036	0024	IOBERRCT	0046	002E

(CONTINUED ON THE NEXT PAGE)

(CONTINUED FROM THE PREVIOUS PAGE)

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
IOBEXTEN	0048	0030		IOBRDCHP	0076	004C		IOBSTRTB	0033	0021	
IOBFCHAD	0064	0040		IOBREADA	0068	0044		IOBSWAP	0012	000C	
IOBFCHNB	0065	0041		IOBREPOS	0040	0028		IOBUCBX	0048	0030	
IOBFLAG1	0016	0010		IOBRESTR	0040	0028		IOBUCBXG	0048	0030	
IOBFLAG2	0017	0011		IOBRSTRB	0041	0029		IOBUNSQR	0061	003D	
IOBFLAG3	0024	0018		IOBRSV05	0001	0001		IOBWORK	0049	0031	
IOBGAM	0012	000C	(EQU)	IOBRSV19	0045	002D		PDITCOMN	0048	0030	(EQU)
IOBGQECB	0012	000C		IOBRSV34	0074	004A		PDITCPCT	0060	003C	
IOBHH	0053	0035		IOBRSV35	0080	0050		PDITDCB	0116	0074	
IOBHH1	0053	0035		IOBRSV36	0036	0024		PDITDEB	0064	0040	
IOBHH2	0054	0036		IOBRSV37	0049	0031		PDITE	0016	0010	(EQU)
IOBINCAM	0044	002C		IOBSEEK	0048	0030		PDITECB	0112	0070	
IOBINDCT	0060	003C		IOBSEEK2	0056	0038		PDITEND	0128	0080	
IOBM	0048	0030		IOBSENS0	0018	0012		PDITFLG1	0056	0038	
IOBNECB	0012	000C		IOBSENS1	0019	0013		PDITHSQ	0124	007C	
IOBNEXTA	0072	0048		IOBSIOCC	0032	0020		PDITHSQA	0125	007D	
IOBNFLG1	0008	0008		IOBSK2BB	0057	0039		PDITINDX	0057	0039	
IOBNIOBA	0008	0008		IOBSK2CC	0059	003B		PDITIOBP	0058	003A	
IOBNIOBB	0009	0009		IOBSK2HH	0061	003D		PDITLACF	0060	003C	
IOBNXTPB	0053	0035		IOBSK2M	0056	0038		PDITLACP	0061	003D	
IOBNXTPT	0052	0034		IOBSK2R	0063	003F		PDITLEN	0112	0070	(EQU)
IOBPREFX	0000	0000		IOBSNDPT	0055	0037		PDITSCNT	0120	0078	
IOBQISAM	0012	000C	(EQU)	IOBSTART	0032	0020		PDITSQCT	0124	007C	
IOBQSAMC	0000	0000		IOBSTATA	0052	0034		PDIT1SQ	0120	0078	
IOBQSAMN	0008	0008		IOBSTAT1	0066	0042		PDIT1SQA	0121	0079	
IOBR	0055	0037		IOBSTAT2	0067	0043		W1IEXTEN	0056	0038	
IOBRCVPT	0054	0036		IOBSTDRD	0016	0010		W1OEXTEN	0056	0038	

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
IOBBTAMF	FLAG BYTE FOR BTAM	IOBPRMER	X'80'	'SAD','ENABLE' ISSUED BY OPEN CAUSED I/O ERROR
		IOBINUSE	X'40'	IOB IS IN USE
		IOBRSV14	X'20'	RESERVED
		IOBRSV15	X'10'	RESERVED
		IOBRSV16	X'08'	RESERVED
		IOBRSV17	X'04'	RESERVED
		IOBRSV18	X'02'	RESERVED
		IOBOLTST	X'01'	LINE IS UNDER ON-LINE TEST OPERATION
IOBCFLG1	FLAG BYTE	IOBRSV01	X'80'	RESERVED
		IOBRSV02	X'40'	RESERVED
		IOBRSV03	X'20'	RESERVED
		IOBRSV04	X'10'	RESERVED
		IOBPTST	X'08'	NOTE OR POINT OPERATION IS IN PROCESS
		IOBABAPP	X'04'	ERROR PROCESSED ONCE BY ABNORMAL-END APPENDAGE
		IOBRSTCH	X'02'	RESTART CHANNEL
		IOBPCI	X'01'	PCI INTERRUPT HAS OCCURRED
IOBDEQIN	DEQUEUE LOOP INDICATOR	IOBDEQ	X'80'	TASK WITH SPANNED RECORD BEING DEQUEUED
		IOBRSV07	X'40'	RESERVED
		IOBRSV08	X'20'	RESERVED
		IOBRSV09	X'10'	RESERVED
		IOBRSV10	X'08'	RESERVED
		IOBRSV11	X'04'	RESERVED
		IOBRSV12	X'02'	RESERVED
		IOBRSV13	X'01'	RESERVED
IOBDTYPE	TYPE OF REQUEST AND SPECIFIED OPTIONS	IOBVERFY	X'80'	VERIFY
		IOBOVFLO	X'40'	OVERFLOW
		IOBEXTSC	X'20'	EXTENDED SEARCH
		IOBFDBCK	X'10'	FEEDBACK
		IOBACTAD	X'08'	ACTUAL ADDRESSING
		IOBDYNBF	X'04'	DYNAMIC BUFFERING
		IOBRDEXC	X'02'	READ EXCLUSIVE

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FLAG	CONTAINS	MASK	VALUE	MEANS
		IOBRELBL	X'01'	RELATIVE BLOCK ADDRESSING
IOBDTYP2	SECOND BYTE OF OPTIONS AND REQUESTS	IOBSKEY	X'80'	KEY ADDRESS CODED AS 'S'
		IOBSBLKL	X'40'	BLOCK LENGTH CODED AS 'S'
		IOBSUFFX	X'30'	INDICATES TYPE OF SUFFIX('R' OR 'RU')
		IOBRQUST	X'08'	BIT = 1 MEANS READ; BIT = 0 MEANS WRITE;
		IOBTYPE	X'04'	BIT = 1 MEANS KEY TYPE
		IOBADDTY	X'02'	ADD TYPE
		IOBRELEX	X'01'	RELEX MACRO ISSUED
IOBFLAG1	FLAG BYTE	IOBDATCH	X'80'	DATA CHAINING USED IN CHANNEL PROGRAM
		IOBCMDCH	X'40'	COMMAND CHAINING USED IN CHANNEL PROGRAM
		IOBERRTN	X'20'	ERROR ROUTINE IS IN CONTROL
		IOBRPSTN	X'10'	DEVICE IS TO BE REPOSITIONED
		IOBCYCCK	X'08'	CYCLIC REDUNDANCY CHECK NEEDED(TAPE ONLY)
		IOBFCREX	X'08'	FETCH COMMAND RETRY EXIT (DIRECT ACCESS ONLY)
		IOBIOERR	X'04'	I/O ERROR HAS OCCURRED
		IOBUNREL	X'02'	THIS I/O REQUEST IS UNRELATED (NONSEQUENTIAL)
		IOBRSTRT	X'01'	RESTART ADDR.IN IOB TO BE USED
IOBFLAG2	FLAG BYTE	IOBHALT	X'80'	HALT I/O HAS BEEN ISSUED BY SVC PURGE ROUTINE
		IOBSENSE	X'40'	ISSUE SENSE COMMAND AFTER DEVICE END OCCURS
		IOBPURGE	X'20'	IOB HAS BEEN PURGED *ALLOW I/O TO QUIESCE
		IOBRDHA0	X'10'	HOME ADDRESS TO BE READ * NO SEEK NEEDED
		IOBALTTR	X'08'	NO TEST FOR OUT-OF-EXTENT * AN ALTERNATE TRACK IS IN USE
		IOBSKUPD	X'04'	SEEK ADDRESS IS BEING UPDATED - CYLINDER END OR FILE MASK VIOLATION HAS OCCURED
		IOBSTATO	X'02'	DEVICE END STATUS HAS BEEN ORED WITH DEVICE END STATUS-GRAPHICS DEVICE
		IOBPNCH	X'01'	TURNED ON BY QSAM WHEN ERROR RECOVERY IS REQUIRED FOR 2540 CARD PUNCH
IOBINDCT	FLAG BYTE	IOBDEQCP	X'80'	DEQUEUE CHANNEL PROGRAM FROM QUEUE
		IOBUNSCH	X'40'	UNSCHEDULER QUEUE
		IOBOVPTR	X'20'	PTR.TO OVERFLOW RECORD INDICATOR: IF 0, USE DECBAREA + 6; IF 1, USE DCBMSWA AS POINTER
		IOBKEYAD	X'10'	PTR.TO OVERFLOW RECORD KEY INDICATOR: IF 0, USE DECBKEY; IF 1, USE DCBMSWA AS POINTER
		IOBRSV27	X'08'	RESERVED
		IOBRSV28	X'04'	RESERVED
		IOBRSV29	X'02'	RESERVED
		IOBCHNNL	X'01'	CHANNEL END STATUS INDICATOR: IF 1, MEANS "ABNORMAL END"
IOBNFLG1	FLAG BYTE	IOBPRTOV	X'80'	'PRTOV' HAS OCCURRED
		IOBWRITE	X'40'	'WRITE' OPERATION IN PROCESS
		IOBREAD	X'20'	'READ' OPERATION IN PROCESS

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FLAG	CONTAINS	MASK	VALUE	MEANS
		IOBUPDAT	X'10'	BLOCK IS TO BE UPDATED
		IOBBKSPC	X'08'	IOB BEING USED FOR BACKSPACE,CONTROL,NOTE/POINT
		IOBSPAN	X'04'	THIS RECORD IS A SPANNED RECORD
		IOBRSV06	X'02'	RESERVED
		IOBFIRST	X'01'	THIS IS FIRST IOB ON CHAIN
IOBSENS0	FIRST SENSE BYTE	IOBS0B0	X'80'	BIT 0 (DEVICE DEPENDENT)
		IOBS0B1	X'40'	BIT 1 (DEVICE DEPENDENT)
		IOBS0B2	X'20'	BIT 2 (DEVICE DEPENDENT)
		IOBS0B3	X'10'	BIT 3 (DEVICE DEPENDENT)
		IOBS0B4	X'08'	BIT 4 (DEVICE DEPENDENT)
		IOBS0B5	X'04'	BIT 5 (DEVICE DEPENDENT)
		IOBS0B6	X'02'	BIT 6 (DEVICE DEPENDENT)
		IOBS0B7	X'01'	BIT 7 (DEVICE DEPENDENT)
		IOBSNSC9	X'01'	CHANNEL 9 SENSED IN CARRIAGE TAPE
IOBSENS1	SECOND SENSE BYTE	IOBS1B0	X'80'	BIT 0 (DEVICE DEPENDENT)
		IOBS1B1	X'40'	BIT 1 (DEVICE DEPENDENT)
		IOBS1B2	X'20'	BIT 2 (DEVICE DEPENDENT)
		IOBS1B3	X'10'	BIT 3 (DEVICE DEPENDENT)
		IOBS1B4	X'08'	BIT 4 (DEVICE DEPENDENT)
		IOBS1B5	X'04'	BIT 5 (DEVICE DEPENDENT)
		IOBS1B6	X'02'	BIT 6 (DEVICE DEPENDENT)
		IOBS1B7	X'01'	BIT 7 (DEVICE DEPENDENT)
IOBSTATA	STATUS SWITCH	IOBAVLFL	X'80'	IF BIT IS 0,IOB IS AVAILABLE
		IOBRSV20	X'40'	RESERVED
		IOBRSV21	X'20'	RESERVED
		IOBRSV22	X'10'	RESERVED
		IOBRSV23	X'08'	RESERVED
		IOBRSV24	X'04'	RESERVED
		IOBRSV25	X'02'	RESERVED
		IOBRSV26	X'01'	RESERVED
IOBSTAT1	FLAG BYTE	IOBABNRM	X'80'	ABNORMAL COMPLETION
		IOBNEWVL	X'40'	ON EXTENDED SEARCH, THE NEXT EXTENT IS ON A NEW VOLUME. ASI ROUTINE MUST ISSUE EXCP: THE END-OF-EXTENT APPENDAGE CANNOT
		IOBRSV33	X'20'	RESERVED
		IOBPASS2	X'10'	ON EXTENDED SEARCH, INDICATES TO RELATIVE BLOCK CONVERSION ROUTINE THAT THE SECOND PASS OF A TWO-PASS CONVERSION ROUTINE HAS COMPLETED
		IOBENQUE	X'08'	RECORD ENQUEUED (EXCLUSIVE CONTROL REQUEST)
		IOBBUFF	X'04'	BUFFER ASSIGNED TO THIS IOB
		IOBADDVU	X'02'	V OR U TYPE RECORD BEING ADDED TO DATA SET
		IOBSIORT	X'01'	INDICATES TO DYNAMIC BUFFERING ROUTINE THAT IT WAS ENTERED FROM, AND SHOULD RETURN TO, THE START I/O APPENDAGE MODULE
IOBUNSQR	REASON FOR UNSCHEDULED QUEUE	IOBCPBSY	X'80'	CHANNEL PROGRAM CP1 OR CP2 BUSY
		IOBNTAV1	X'40'	NO CP4, CP5 OR CP6 AVAILABLE
		IOBNTAV2	X'20'	NO CP7 AVAILABLE
		IOBKNWR	X'10'	WRITE KN IS IN EFFECT (UNSCHEDULED IOB IS FOR WRITE KN)
		IOBKNRWR	X'08'	WRITE KN IS IN EFFECT (UNSCHEDULED IOB IS FOR READ OR WRITE KN)
		IOBRSV30	X'04'	RESERVED
		IOBRSV31	X'02'	RESERVED
		IOBRSV32	X'01'	RESERVED

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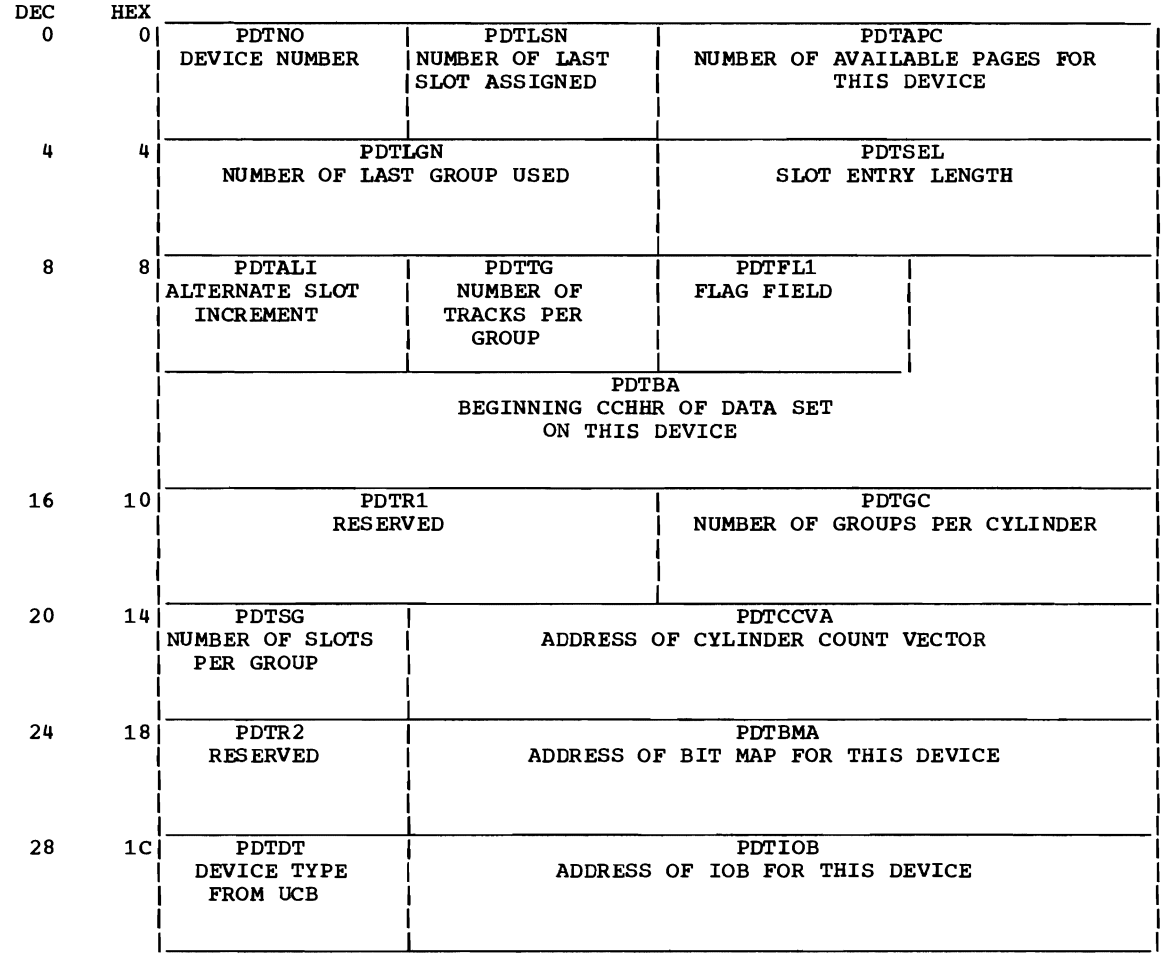
FLAG	CONTAINS	MASK	VALUE	MEANS
PDITFLG1	FLAG FIELD	PDITSSDV	X'80'	SET SELECTOR DEVICE INDICATOR
		PDITMHDV	X'40'	MOVEABLE HEAD DEVICE INDICATOR
		PDITXCP	X'20'	EXCP REQUIRED INDICATOR
		PDITPON	X'10'	PRIMARY SEARCH INDICATOR
		PDITPOFF	X'EF'	MASK TO TURN OFF PDITPON
		PDITOAPF	X'08'	CHANNEL PROGRAM HAS BEEN APPENDED
		PDITOAOF	X'F7'	MASK TO TURN OFF PDITOAPF
		PDITMIOB	X'04'	MULTIPLE IOB INDICATOR
		PDITNOPS	X'02'	PRIMARY OR SECONDARY SLOT NOT FOUND
		PDITACT	X'01'	FLAG TO INDICATE THAT PAGING DEVICE IS EXECUTING A PROGRAM

PDTE (Page Device Table Entry)

Total size: 36 bytes
Created by: Paging Supervisor
Purpose: Used by the paging supervisor to locate specific pages on a device for paging operations (page-in, page-out, and available page assignment).

STORAGE MAP OF PDTE



DISPLACEMENT LIST OF FIELDS IN PDTE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	PDTNO	0011	000B	PDTBA	0025	0019	PDTBMA	
0001	0001	PDTLSN	0016	0010	PDTR1	0028	001C	PDTDT	
0002	0002	PDTAPC	0018	0012	PDTGC	0028	001C	PDTIOBF	
0004	0004	PDTLGN	0020	0014	PDTSG	0029	001D	PDTIOB	
0006	0006	PDTSEL	0020	0014	PDTCCVAF	0032	0020	PDTLEN	(EQU)
0008	0008	PDTALI	0021	0015	PDTCCVA	0032	0020	PDTEND	
0009	0009	PDTTG	0024	0018	PDTR2				
0010	000A	PDTFL1	0024	0018	PDTBM				

ALPHABETICAL LIST OF FIELDS IN PDTE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
PDTALI	0008	0008	PDTEND	0032	0020		PDTNO	0000	0000
PDTAPC	0002	0002	PDTFL1	0010	000A		PDTR1	0016	0010
PDTBA	0011	000B	PDTGC	0018	0012		PDTR2	0024	0018
PDTBM	0024	0018	PDTIOB	0029	001D		PDTSEL	0006	0006
PDTBMA	0025	0019	PDTIOBF	0028	001C		PDTSG	0020	0014
PDTCCVA	0021	0015	PDTLEN	0032	0020	(EQU)	PDTTG	0009	0009
PDTCCVAF	0020	0014	PDTLGN	0004	0004				
PDTDT	0028	001C	PDTLSN	0001	0001				

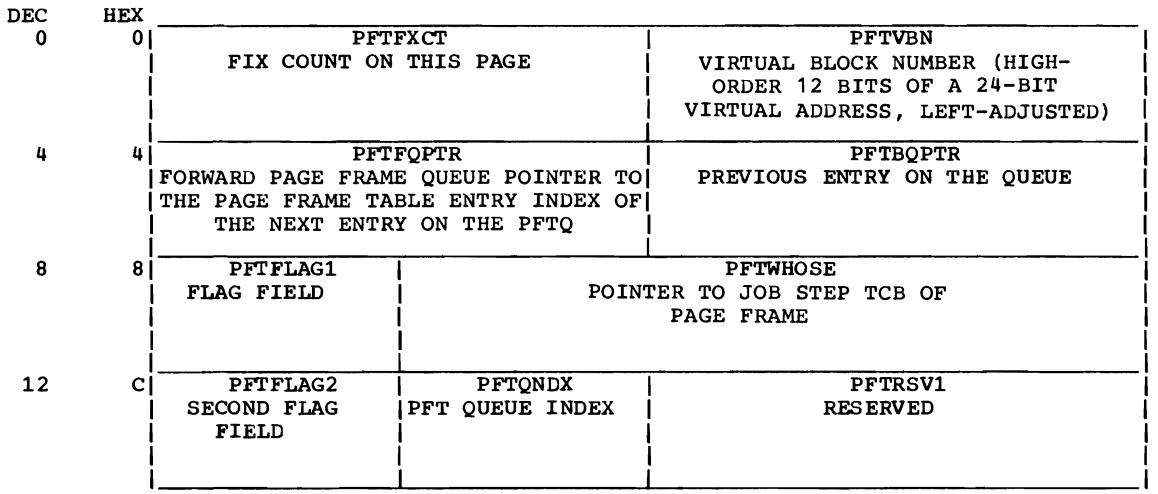
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PDTFL1	FLAG FIELD	PDTDEVT1	X'80'	PRIMARY/SECONDARY DEVICE TYPE. WHEN 1, PRIMARY DEVICE; WHEN 0, SECONDARY DEVICE.
		PDTDEVT2	X'40'	FIXED/MOVEABLE HEAD TYPE
		PDTLAST	X'20'	LAST PDTE FLAG

PFTE (Page Frame Table Entry)

Total size: 16 bytes
Created by: Paging Supervisor
Purpose: Used to record the status of a page frame.

STORAGE MAP OF PFTE



DISPLACEMENT LIST OF FIELDS IN PFTE

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	PFTNQN	(EQU)	0004	0004	PFTFQPTR		0008	0008	PFTWHOSF	
0000	0000	PFTFXCT		0005	0005	PFTAC3QN	(EQU)	0009	0009	PFTWHOSE	
0001	0001	PFTAVQN	(EQU)	0006	0006	PFTAC4QN	(EQU)	0012	000C	PFTFLAG2	
0002	0002	PFTHQN	(EQU)	0006	0006	PFTBQPTR		0013	000D	PFTQNDX	
0002	0002	PFTVBN		0007	0007	PFTRESQN	(EQU)	0014	000E	PFTRSV1	
0003	0003	PFTAC1QN	(EQU)	0008	0008	PFTSQAQN	(EQU)	0016	0010	PFTLEN	(EQU)
0004	0004	PFTAC2QN	(EQU)	0008	0008	PFTFLAG1		0016	0010	PFTEND	

ALPHABETICAL LIST OF FIELDS IN PFTE

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
PFTAC1QN	0003	0003	(EQU)	PFTFLAG1	0008	0008		PFTQNDX	0013	000D	
PFTAC2QN	0004	0004	(EQU)	PFTFLAG2	0012	000C		PFTRESQN	0007	0007	(EQU)
PFTAC3QN	0005	0005	(EQU)	PFTFQPTR	0004	0004		PFTRSV1	0014	000E	
PFTAC4QN	0006	0006	(EQU)	PFTFXCT	0000	0000		PFTSQAQN	0008	0008	(EQU)
PFTAVQN	0001	0001	(EQU)	PFTHQN	0002	0002	(EQU)	PFTVBN	0002	0002	
PFTBQPTR	0006	0006		PFTLEN	0016	0010	(EQU)	PFTWHOSE	0009	0009	
PFTEND	0016	0010		PFTNQN	0000	0000	(EQU)	PFTWHOSF	0008	0008	

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PFTFLAG1	FLAG FIELD	PFTONAVQ	X'80'	PAGE FRAME ON AVAILABLE QUEUE FLAG
		PFTVRINT	X'40'	V = R INTERCEPT FLAG, WHEN 1, THIS PFTE IS NEEDED FOR V = R ALLOCATION; DO NOT ALLOCATE FOR ANOTHER REGION
		PFTLSQA	X'20'	SQA/LSQA FLAG, WHEN 1, PAGE FRAME CONTAINS AN LSQA PAGE
		PFTLNGFX	X'10'	LONG FIX FLAG, WHEN 1, PAGE FRAME IS IN LONG-FIX STATUS
		PFTPCBSI	X'08'	PCB DEFINED FOR THIS PAGE
		PFTBADPG	X'04'	PAGE FRAME IS NOT ALLOCATABLE

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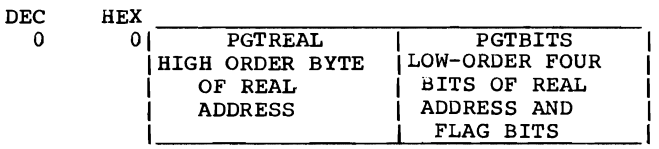
(CONTINUED FROM THE PREVIOUS PAGE)

FLAG	CONTAINS	MASK	VALUE	MEANS
		PFTVRALC	X'02'	V = R ALLOCATED
		PFTHOLDQ	X'01'	PAGE FRAME ON HOLD QUEUE
PFTFLAG2	SECOND FLAG FIELD	PFTDFCLR	X'80'	DEFERRED CLEAR FLAG
		PFTTSO	X'40'	SET IN CONJUNCTION WITH PFTLSQA FOR TSO/LSQA PAGES

PTE(PGTE) (Page Table Entry)

Total size: 2 bytes
Created by: IEAPTCD (Create Page Table Routine)
Purpose: Used to associate a virtual page with a page frame. The page frame number (high-order 12 bits) is concatenated with the 12 low-order bits of the virtual address to form the 24-bit real address corresponding to any virtual address.

STORAGE MAP OF PTE



DISPLACEMENT LIST OF FIELDS IN PTE

DEC	HEX	FIELD	DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	PGTREAL	0001	0001	PGTBITS		0002	0002	PGTEND
0000	0000	PGTRSA	0002	0002	PGTLEN	(EQU)			

ALPHABETICAL LIST OF FIELDS IN PTE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
PGTBITS	0001	0001	PGTLEN	0002	0002	(EQU)	PGTRSA	0000	0000
PGTEND	0002	0002	PGTREAL	0000	0000				

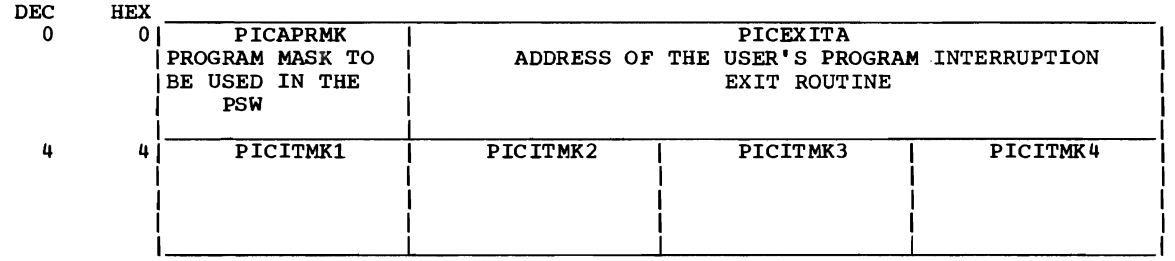
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PGTBITS	LOW ORDER FOUR BITS OF REAL ADDRESS AND FLAG BITS	PGTPVM	X'08'	PAGE VALIDITY FLAG, WHEN 1, PAGE IS INVALID
		PGTPAM	X'01'	PAGE ASSIGNED FLAG, WHEN 1, PAGE ASSIGNED BY GETMAIN

PICA (Program Interruption Control Block)

Total size: 8 bytes
Created by: Expansion of SPIE macro
Purpose: The execution of the instructions of the SPIE macro expansion places in the fields of the PICA a program mask, the address of the user program interruption exit routine, and an interruption mask. If, after the execution of the SPIE routine, a program check occurs in a program being executed for the issuer's task, the information in the PICA determines how the program interruption is to be processed.

STORAGE MAP OF PICA



DISPLACEMENT LIST OF FIELDS IN PICA

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PICAPRMK	0004	0004	PICITMK1	0006	0006	PICITMK3
0000	0000	PICAEXIT	0004	0004	PICAITMK	0007	0007	PICITMK4
0001	0001	PICEXITA	0005	0005	PICITMK2			

ALPHABETICAL LIST OF FIELDS IN PICA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PICAEXIT	0000	0000	PICEXITA	0001	0001	PICITMK3	0006	0006
PICAITMK	0004	0004	PICITMK1	0004	0004	PICITMK4	0007	0007
PICAPRMK	0000	0000	PICITMK2	0005	0005			

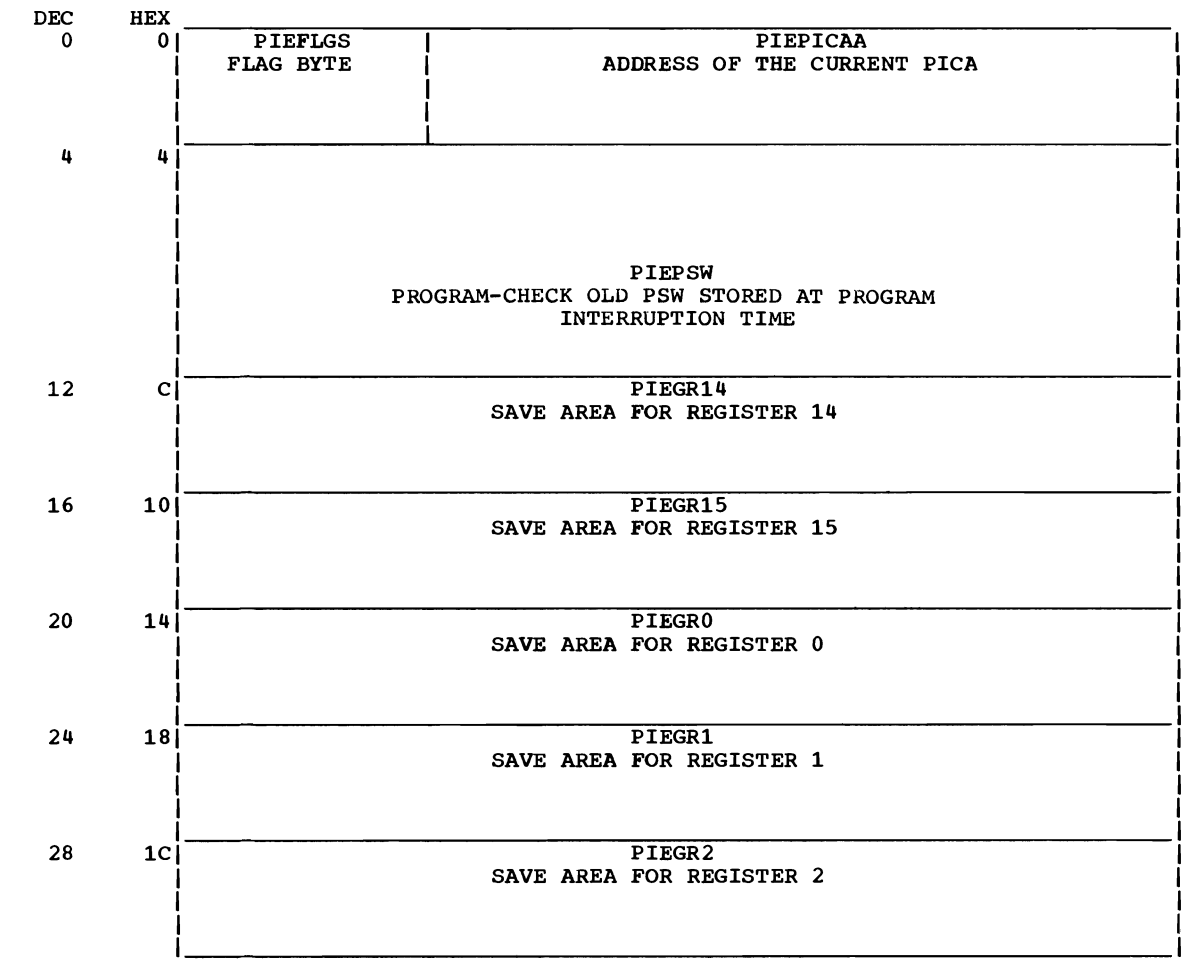
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PICITMK1		PICAEXT	X'80'	AN EXTENDED PICA IS IN EFFECT
		PICACD1	X'40'	OPERATION
		PICACD2	X'20'	PRIVILEGED OPERATION
		PICACD3	X'10'	EXECUTE
		PICACD4	X'08'	PROTECTION
		PICACD5	X'04'	ADDRESSING
		PICACD6	X'02'	SPECIFICATION
		PICACD7	X'01'	DATA INTRPT HANDLED
PICITMK2		PICACD8	X'80'	FIXED-POINT OVERFLOW
		PICACD9	X'40'	FIXED-POINT DIVIDE
		PICACD10	X'20'	DECIMAL OVERFLOW
		PICACD11	X'10'	DECIMAL DIVIDE
		PICACD12	X'08'	EXPONENT OVERFLOW
		PICACD13	X'04'	EXPONENT UNDERFLOW
		PICACD14	X'02'	SIGNIFICANCE
		PICACD15	X'01'	FLOATING-POINT DIVIDE
PICITMK3		PICACD17	X'40'	PAGE TRANSLATION ERROR

PIE (Program Interruption Element)

Total size: 32 bytes
Created by: SPIE routine
Purpose: When a program check occurs, if the interrupted program has specified an exit routine to handle this interruption by issuing a SPIE macro, the supervisor places the information that the exit routine needs to handle the interruption in the PIE. This information consists of the program check old PSW, general registers 14 through 2, and the address of the current PICA (program interruption control area).

STORAGE MAP OF PIE



DISPLACEMENT LIST OF FIELDS IN PIE

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	PIEFLGS		0004	0004	BIT5	(EQU)	0024	0018	PIEGR1	
0000	0000	PIEPICA		0008	0008	BIT4	(EQU)	0028	001C	PIEGR2	
0001	0001	PIEPICAA		0012	000C	PIEGR14		0032	0020	BIT2	(EQU)
0001	0001	BIT7	(EQU)	0016	0010	PIEGR15		0064	0040	BIT1	(EQU)
0002	0002	BIT6	(EQU)	0016	0010	BIT3	(EQU)	0128	0080	BIT0	(EQU)
0004	0004	PIEPSW		0020	0014	PIEGR0					

ALPHABETICAL LIST OF FIELDS IN PIE

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX
BIT0	0128	0080	(EQU)	BIT6	0002	0002	(EQU)	PIEGR15	0016	0010
BIT1	0064	0040	(EQU)	BIT7	0001	0001	(EQU)	PIEGR2	0028	001C
BIT2	0032	0020	(EQU)	PIEFLGS	0000	0000		PIEPICA	0000	0000
BIT3	0016	0010	(EQU)	PIEGR0	0020	0014		PIEPICAA	0001	0001
BIT4	0008	0008	(EQU)	PIEGR1	0024	0018		PIEPSW	0004	0004
BIT5	0004	0004	(EQU)	PIEGR14	0012	000C				

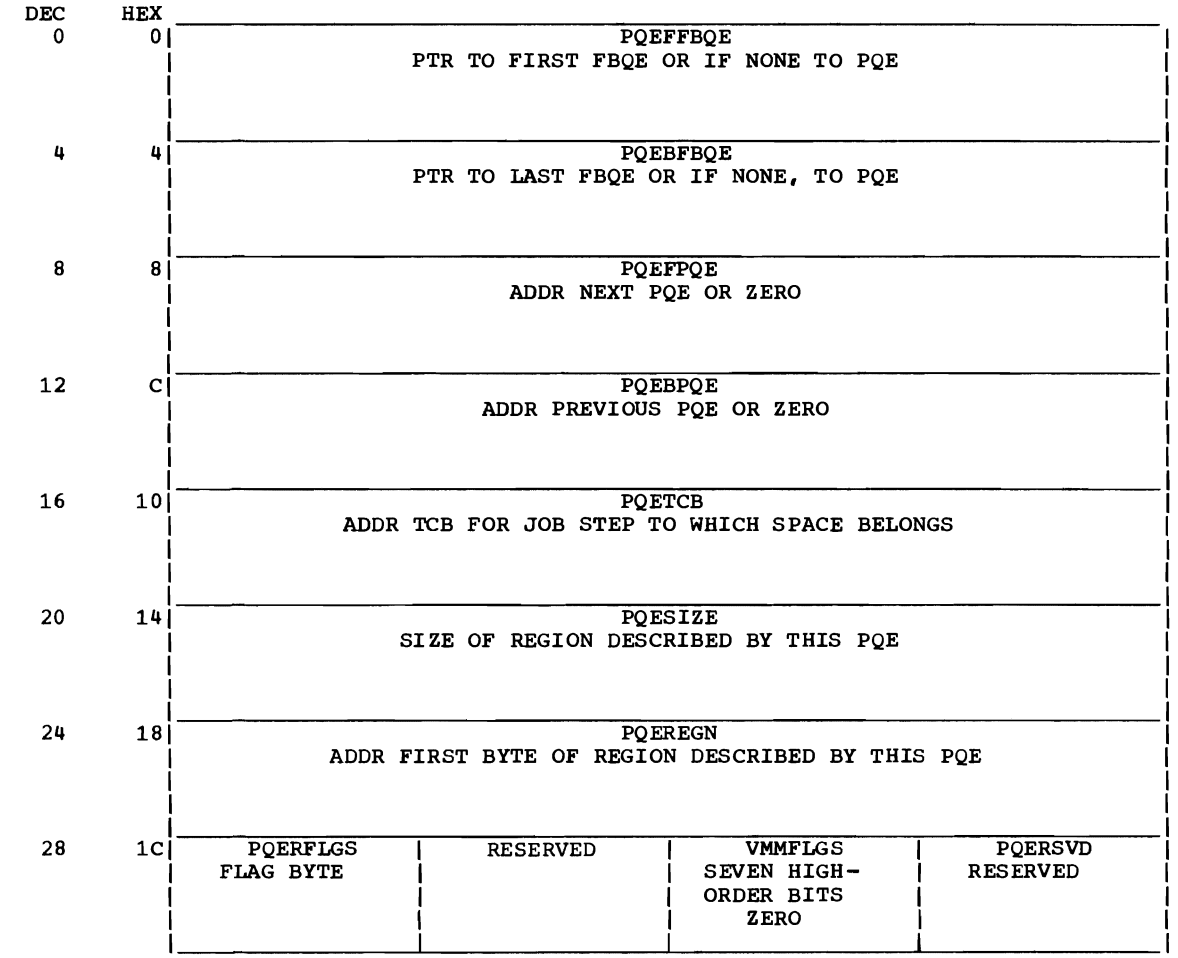
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PIEFLGS	FLAG BYTE	PIENOPI	X'80'	IF ONE, INDICATES THAT THE TASK CANNOT ACCEPT FURTHER PIEs

PQE (Partition Queue Element)

Total size: 32 bytes
Created by: IEAVGM00
Purpose: Heads a chain of control blocks (FBQEs) that describe unallocated virtual storage space within an entire region, the pageable (V=V) dynamic area, the nonpageable (V=R) dynamic area, a local system queue area, or the system queue area.

STORAGE MAP OF PQE



DISPLACEMENT LIST OF FIELDS IN PQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	PQEFFBQE	0016	0010	PQETCB	0029	001D	PQEHRID
0004	0004	PQEBFBQE	0020	0014	PQESIZE	0030	001E	VMMFLGS
0008	0008	PQEFPQE	0024	0018	PQEREGN	0031	001F	PQERSVD
0012	000C	PQEBPQE	0028	001C	PQERFLGS			

ALPHABETICAL LIST OF FIELDS IN PQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
PQEBFBQE	0004	0004	PQEHRID	0029	001D	PQESIZE	0020	0014
PQEBPQE	0012	000C	PQEREGN	0024	0018	PQETCB	0016	0010
PQEFFBQE	0000	0000	PQERFLGS	0028	001C	VMMFLGS	0030	001E
PQEFPQE	0008	0008	PQERSVD	0031	001F			

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
VMMFLGS	SEVEN HIGH ORDER BITS ZERO	VVVRFLG	X'01'	REAL OR VIRTUAL REGION FLAG

PVT (Page Vector Table)

Total size: 544 bytes
Created by: NIP
Purpose: Contains:

- All address constants internal to the paging supervisor.
- Pointers to and header information about various other paging supervisor control blocks.
- Scan table entries (SCNTEs) for all PCB queues. (The description of SCNTE follows the storage map and tables for the main body of PVT, below.)
- Paging supervisor status indicators.
- System-wide statistics for SMF purposes.
- Paging threshold information.

STORAGE MAP OF PVT

DEC	HEX				
0	0	PVTFLAG1 PVT FLAGS (I/O FLIH COMMUNICATION OF WORK)	PVTRPLSW REPLENISH SWITCH - WHEN ON = X'FF' = *(see footnote)	PVTAPC AVAILABLE PAGE COUNT	
4	4	PVTLTH LOW THRESHOLD VALUE FOR REAL STORAGE REPLACEMENT FUNCTION		PVTREPCT NUMBER OF PAGE FRAMES TO BE RELEASED WHEN LOW THRESHOLD IS PASSED	
8	8	PVTFLAG2 FLAG BYTE 2	PVTSQACR NUMBEREOF SQA AND LSQA PAGES NEEDED TO REPLENISH SQA RESERVE QUEUE	PVTPAPC NUMBER OF PRIMARY PAGES ON AUXILLIARY STORAGE	
12	C	PVTLAPC LOW THRESHOLD FOR EXTERNAL STORAGE		PVTFLAG3 CHECKTHRESH FLAGS	PVTBAKUP PERCENT BACKUP FOR TSO REGIONS - FILLED IN BY TSO
16	10	PVTTOTAX TOTAL UNCOMMITTED EXTERNAL PAGES			
20	14	PVTSUCM SYSTEM UNCOMMITTED EXTERNAL PAGE COUNT			
24	18	PVTMAXT MAXIMUM NUMBER OF TSO EXTERNAL PAGES			
28	1C	PVTTSOU NUMBER OF PAGES ACTUALLY BEING USED BY TIME SHARING TASKS			
32	20	PVTTSOCM NUMBER OF TSO COMMITTED PAGES			

*PAGE REPLACEMENT MAY NOT BE CALLED - REPLACEMENT ALREADY SCHEDULED

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DEC	HEX		
36	24	PVTMAXB MAXIMUM NUMBER OF BATCH EXTERNAL PAGES	PVTBATCM NUMBER OF BATCH COMMITTED PAGES
40	28	PVTLOGB LOGON BUFFER	PVTTSBU TSO BUFFER
44	2C	PVTFXC SYSTEM FIXED PAGE FRAME COUNT	PVTLFXC SYSTEM LONG-FIXED PAGE FRAME COUNT
48	30	PVTLFXL LONG FIX LIMIT VALUE	PVTSFXL SVC-FIX LIMIT VALUE
52	34	PVTBFXL BRANCH ENTRY FIX LIMIT	PVTTBASE FIX THRESHOLD BASE
56	38	PVTSQACT COUNT OF PAGE FRAMES REPRESENTING SQA/LSQA PAGES	PVTLFXTF LONG FIX THRESHOLD FACTOR
60	3C	PVTSFXTF SVC FIX THRESHOLD FACTOR	PVTBFXTF BRANCH ENTRY FIX THRESHOLD FACTOR
64	40	PVTINTSK NUMBER OF TASKS CURRENTLY NON-DISPATCHABLE DUE TO HIGH PAGING RATE	PVTDYNA NIP FILLS IN SIZE OF DYNAMIC AREA AVAILABLE TO TSO
68	44	PVTSFXDQ SVC FIX DELAY TABLE	
76	4C	PVTBFXDQ BRANCH ENTRY FIX DELAY QUEUE	
84	54	PVTRSV1 RESERVED	

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DEC	HEX		
88	58	*PVTPFTP (see footnote) VIRTUAL ADDRESS OF APPARENT PFT ORIGIN	
92	5C	PVTFPFN PAGE TABLE ENTRY INDEX OF FIRST PFTE	PVTLPFN PAGE TABLE ENTRY INDEX OF LAST PFTE
96	60	PVTRSV0 RESERVED	PVTVEQR PFTE INDEX OF PFTE REPRESENTING LAST PAGE THAT CAN BE ASSIGNED AS A V=R PAGE
100	64	PVTQ00 QUEUE NUMBER OF UNREFERENCED, UNCHANGED PAGE FRAME QUEUE PVTQ01 QUEUE NUMBER OF UNREFERNCED, CHANGED PAGE FRAME QUEUE	PVTQ10 QUEUE NUMBER OF REFERENCED, UNCHANGED PAGE FRAME QUEUE PVTQ11 QUEUE NUMBER OF REFERENCED, CHANGED PAGE FRAME QUEUE
104	68	**PVTAVFST (see footnote) PFTE INDEX OF FIRST ON AVAILABLE PAGE QUEUE	PVTAVLOW PFTE INDEX OF LAST ON AVAILABLE PAGE QUEUE
108	6C	PVTHQ PFTE INDEX OF FIRST ON HOLD PAGE QUEUE	PVTLHQ PFTE INDEX OF LAST ON HOLD PAGE QUEUE
112	70	PVTFAC1Q FIRST PFTE INDEX ON FIRST ACTIVE PAGE QUEUE	PVTLAC1Q LAST PFTE INDEX ON FIRST ACTIVE PAGE QUEUE
116	74	PVTFAC2Q FIRST PFTE INDEX FOR SECOND ACTIVE PAGE QUEUE	PVTLAC2Q LAST PFTE INDEX FOR SECOND ACTIVE PAGE QUEUE
120	78	PVTFAC3Q FIRST PFTE INDEX FOR THIRD ACTIVE PAGE QUEUE	PVTLAC3Q LAST PFTE INDEX FOR THIRD ACTIVE PAGE QUEUE
124	7C	PVTFAC4Q FIRST PFTE INDEX FOR FOURTH ACTIVE PAGE QUEUE	PVTLAC4Q LAST PFTE INDEX FOR FOURTH ACTIVE PAGE QUEUE
128	80	PVTFRESQ PFTE INDEX OF FIRST PFTE (PFQ=7= PFTRESQN, QUEUE RESERVED FOR FUTURE REQUIREMENT	PVTLRESQ PFTE INDEX OF LAST PFTE (RESERVED FOR FUTURE REQUIREMENTS)
132	84	PVTFSQAQ PFTE INDEX OF FIRST PFTE ON SQA/LSQA PFTE RESERVE QUEUE (PFQ=8=PFTSQAQN)	PVTLSQAQ PFTE INDEX OF LAST PFTE ON SQA/LSQA RESERVE QUEUE
136	88	PVTCHPGQ POINTER TO CHANNEL PROGRAM QUEUE- LIST OF CHANNEL PROGRAMS BUILT AT NIP TIME	

* All Two-byte page frame table indexes are left-adjusted page frame numbers with 4 low-order zero bits appended. A zero pointer denotes the last in chain or an empty queue. Any entry in the PFT can be found by adding the left-adjusted slot number to the apparent PFT origin.

** The following are page frame queues. Each entry in a page queue consists of two half words; the first is a PFTE index for the first PFTE on that queue, the second is a PFTE index for the last PFTE on that queue. Pages are generally added to the end of a queue and taken from the beginning. A zero means there are no PFTEs on the page queue.

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DEC	HEX		
140	8C	PVTVROOT ROOT PCB QUEUE HEADER FOR PCBS WAITING FOR V=R ALLOCATION COMPLETION	
144	90	PVTSRQ SWAP ROOT PCB QUEUE HEADER	
148	94	PVTMIGRB JOB STEP TCB OF REGION IN MIGRATION	
152	98	PVTNPDTE NUMBER OF PAGING DEVICE TABLE ENTRIES	PVTPDT ADDRESS OF FIRST PAGE DEVICE TABLE ENTRY
156	9C	PVTRSV5 RESERVED	
160	A0	*PVTALOCQ (see footnote) ALLOCATE QUEUE HEADER	
172	AC	PVTAUQ AUXILARY ALLOCATION QUEUE HEADER	

*PVTALOCQ begins the scan table. The order of the scan table entries must correspond to their queue numbers in the PCB.

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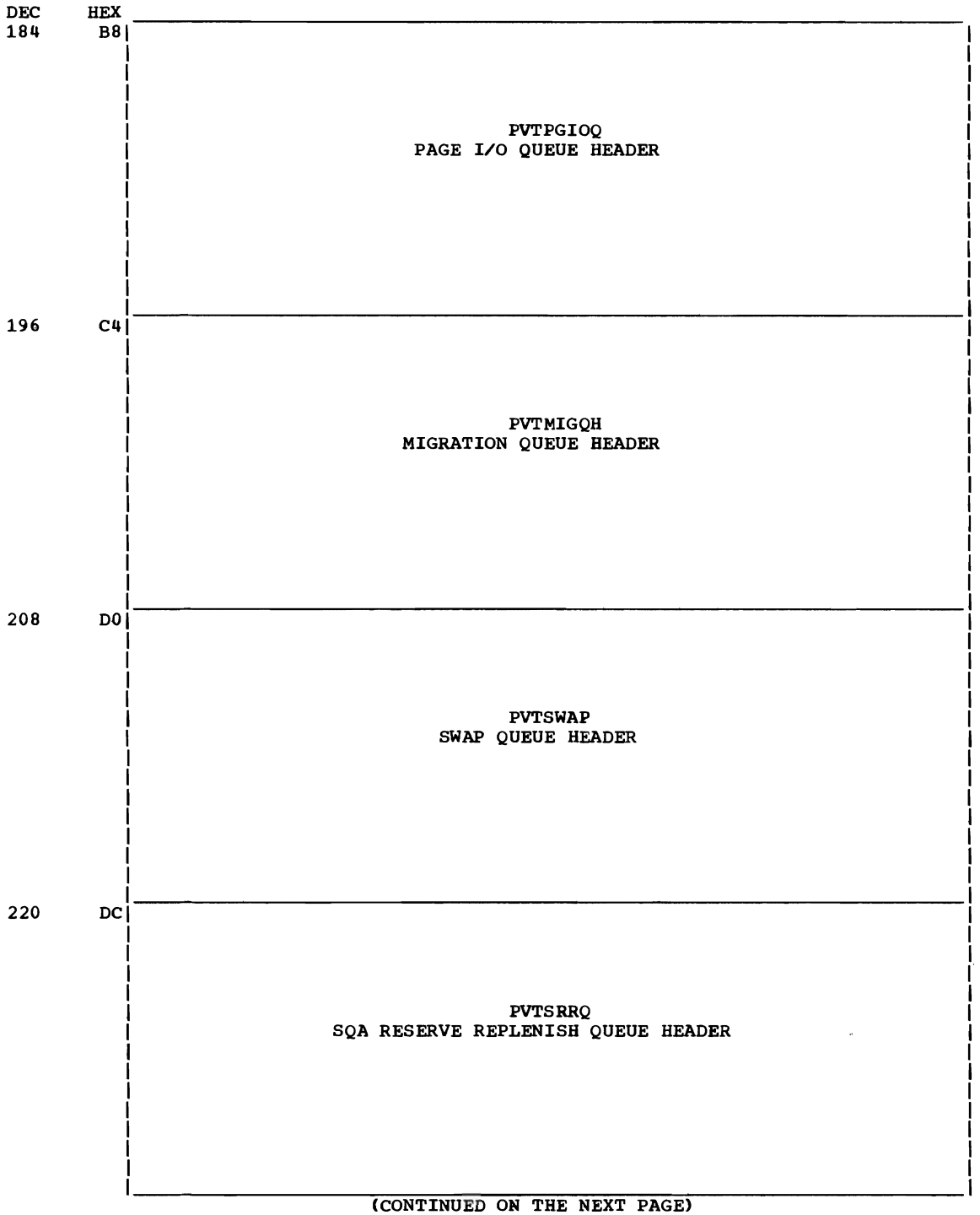

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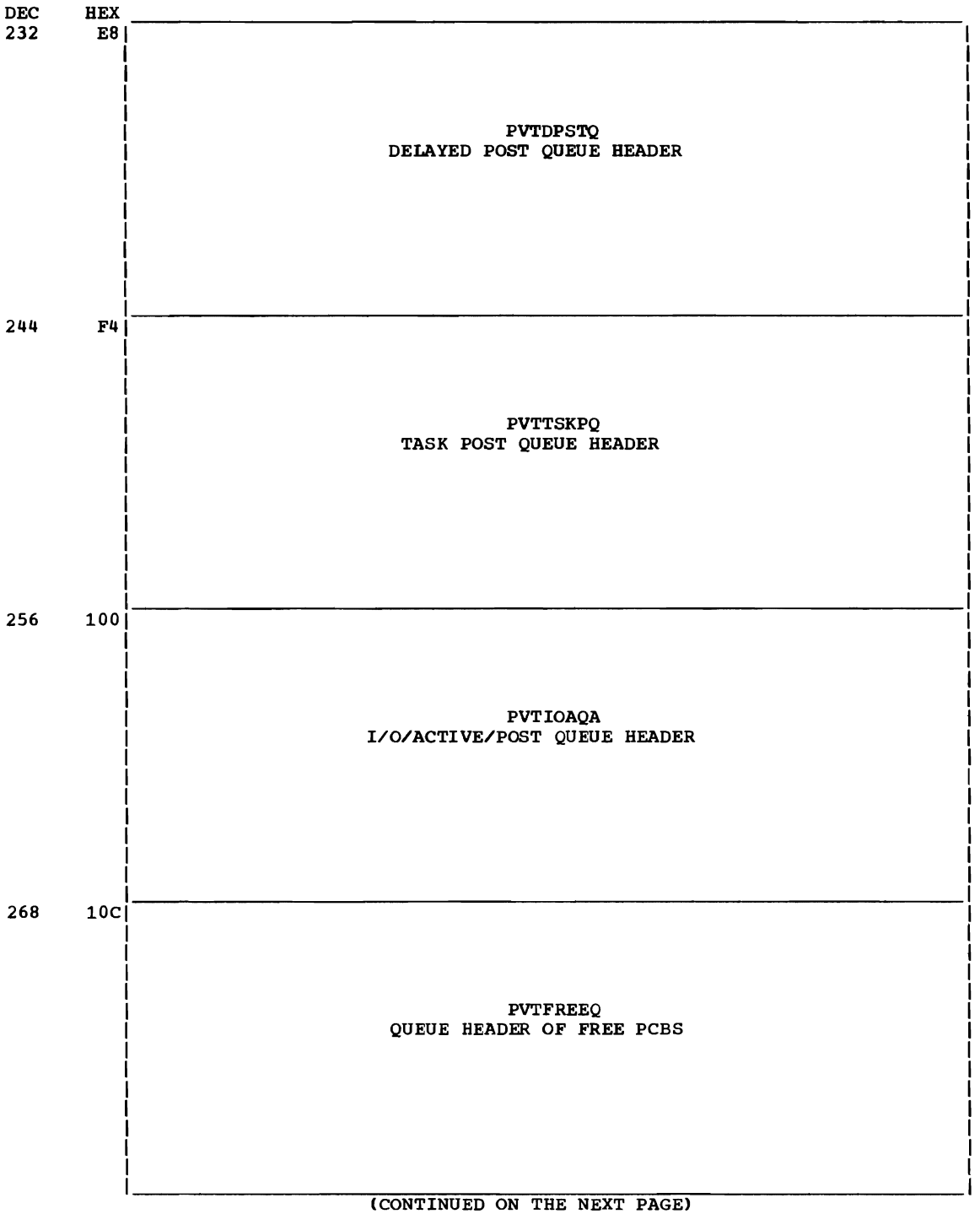

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DEC	HEX	
280	118	PVTRSV6 RESERVED
292	124	PVTNPOUT NUMBER OF PAGES PAGED OUT
296	128	PVTNPIN NUMBER OF PAGES PAGED IN
300	12C	PVTSPOUT NUMBER OF PAGES SWAPPED OUT
304	130	PVTSPIN NUMBER OF PAGES SWAPPED IN
308	134	PVTNSWAP TOTAL NUMBER OF SWAPS
312	138	PVTNPMIG NUMBER OF PAGES MIGRATED
316	13C	PVTNPREC NUMBER OF PAGES RECLAIMED
320	140	PVTNRM NUMBER OF TIMES REGIONS/TSO USERS ARE PUT IN MIGRATION STATUS
324	144	PVTRSV7 RESERVED
328	148	PVTAPVEC POINTER TO PAGING SUPERVISOR APPENDAGE VECTOR TABLE

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DEC	HEX		
332	14C	PVTIOER1 VALUE FOR IEAPSER2	PVTIOER2 ADDRESS OF BUFFER IN POST
336	150	PVTPSIBR V-CON FOR PSI BRANCH ENTRY	
340	154	PVTPSQA V-CON FOR GET SQA PAGE	
344	158	PVTVALOC V-CON FOR ALLOCATE	
348	15C	PVTVAPPI V-CON FOR PAGE I/O INITIATOR APPENDAGE INTERFACE ENTRY POINT	
352	160	PVTVAUXS V-CON FOR AUXILARY ADMINISTRATION	
356	164	PVTVAUX2 V-CON FOR AUXILARY STORAGE ADMINISTRATION - IEAPAUX2 ENTRY POINT	
360	168	PVTVBPCB V-CON FOR BUILDPCB	
364	16C	PVTVCLR2 V-CON FOR RELEASE - IEAPCLR2 ENTRY POINT	
368	170	PVTVCLR3 V-CON FOR RELEASE - IEAPCLR3 ENTRY POINT	
372	174	PVTVFP V-CON FOR FINDPAGE	
376	178	PVTVFP2 V-CON FOR FINDPAGE REGISTER ENTRY	
380	17C	PVTVMPCB V-CON FOR MOVEPCB	

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DEC	HEX	
384	180	PVTVPIOP V-CON FOR PAGE I/O POST
388	184	PVTVRLS2 V-CON FOR PFTE EN-Q ROUTINE
392	188	PVTVRLS3 V-CON FOR PFTE DQ ROUTINE
396	18C	PVTVRPCB V-CON FOR RELATE PCB
400	190	PVTVRPLS V-CON FOR REPLACE
404	194	PVTVRQS V-CON FOR RELEASE Q SUPPRESSION
408	198	PVTVSER V-CON FOR PSER
412	19C	PVTVSER2 V-CON FOR SECONDARY ENTRY POINT TO PAGING SUPERVISOR ERROR RECORDER
416	1A0	PVTVRFL V-CON FOR V=R FLUSH ENTRY POINT
420	1A4	PVTVTERM V-CON FOR PAGING TERMINATION INTERFACE
424	1A8	PVTVVRS V-CON FOR V=R RELEASE
428	1AC	PVTMVPG V-CON FOR MOVE PAGE ENTRY POINT TO IEAPVEQR
432	1B0	PVTTIMEX V-CON FOR PAGING SUPERVISOR TIMER EXIT ROUTINE

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DEC	HEX		
436	1B4	PVTMVPG2 V-CON FOR 'MOVE TO ANY PAGE' ENTRY POINT TO IEAPVEQR	
440	1B8	PVTPSQA1 VCON FOR GETMAIN ENTRY TO SQA ALLOCATION	
444	1BC	PVTRECSV SAVE AREA FOR OLD SYSTEM RECLAIM COUNT	
448	1C0	PVTSINSV SAVE AREA FOR OLD SYSTEM SWAP-IN COUNT	
452	1C4	PVTADRSV SAVE AREA FOR OLD SYSTEM READ COUNT	
456	1C8	PVTHRLIM HIGH INTERVAL RECLAIM THRESHOLD	PVTLRLIM LOW INTERVAL RECLAIM THRESHOLD
460	1CC	PVTHALIM HIGH INTERVAL ADJUSTED SYSTEM READ THRESHOLD	PVTLALIM LOW INTERVAL ADJUSTED SYSTEM READ THRESHOLD
464	1D0	PVTIMEAD TIME INTERVAL FOR TASK DISABLE - ADDED TO BYTES 2 & 3 OF TIMER VALUE	PVTSHUT SHUTDOWN COUNT
468	1D4	PVTRSV11 RESERVED	
480	1E0	PVTSPSTI V-CON FOR DSPSTI - SEGMENT TABLE INDEX OF USER CURRENTLY VALID IN UST	
484	1E4	PVTSPSCT V-CON FOR DSPSCT - NUMBER OF SEGMENTS OF USER CURRENTLY VALID IN UST	

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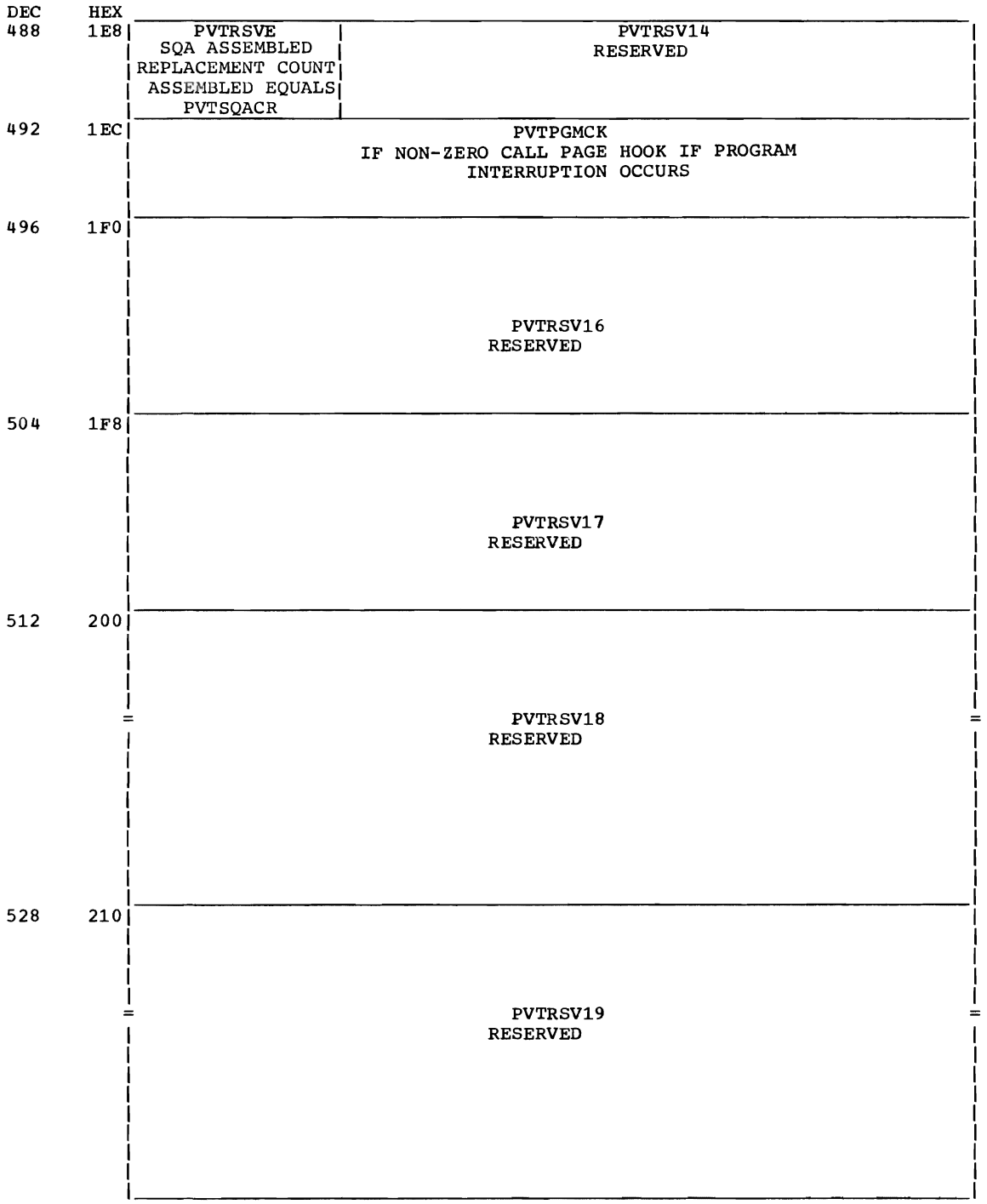

DISPLACEMENT LIST OF FIELDS IN PVT

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	PVTFLAG1		0110	006E	PVTLHQ		0336	0150	PVTPSIBR	
0001	0001	PVTRPLSW		0112	0070	PVTFAC1Q		0340	0154	PVTPSQA	
0002	0002	PVTAPC		0112	0070	PVTACTIV		0344	0158	PVTVALOC	
0004	0004	PVTNACQ	(EQU)	0114	0072	PVTLAC1Q		0348	015C	PVTVAPPI	
0004	0004	PVTLTH		0116	0074	PVTFAC2Q		0352	0160	PVTVAUXS	
0006	0006	PVTREPCT		0118	0076	PVTLAC2Q		0356	0164	PVTVAUX2	
0008	0008	PVTFLAG2		0120	0078	PVTFAC3Q		0360	0168	PVTVBPCB	
0009	0009	PVTSQACR		0122	007A	PVTLAC3Q		0364	016C	PVTVCLR2	
0010	000A	PVTPAPC		0124	007C	PVTFAC4Q		0368	0170	PVTVCLR3	
0012	000C	PVTLAPC		0126	007E	PVTLAC4Q		0372	0174	PVTVFP	
0014	000E	PVTFLAG3		0128	0080	PVTFRESQ		0376	0178	PVTVFP2	
0015	000F	PVTBAKUP		0128	0080	PVTLACTV	(EQU)	0380	017C	PVTVMPCB	
0016	0010	PVTTOTAX		0130	0082	PVTLRESQ		0384	0180	PVTVPIOP	
0020	0014	PVTSUCM		0132	0084	PVTFSQAQ		0388	0184	PVTVRLS2	
0024	0018	PVTMAXT		0134	0086	PVTLSQAQ		0392	0188	PVTVRLS3	
0028	001C	PVTTSOU		0136	0088	PVTCHPGQ		0396	018C	PVTVRPCB	
0032	0020	PVTTSOCM		0140	008C	PVTVROOT		0400	0190	PVTVRPLS	
0036	0024	PVTMAXB		0144	0090	PVTSRQ		0404	0194	PVTVRQS	
0038	0026	PVTBATCM		0148	0094	PVTMIGRB		0408	0198	PVTVSER	
0040	0028	PVTLOGB		0152	0098	PVTNPDTE		0412	019C	PVTVSER2	
0042	002A	PVTTSBU		0153	0099	PVTPDT		0416	01A0	PVTVRFL	
0044	002C	PVTFXC		0156	009C	PVTRSV5		0420	01A4	PVTVTERM	
0046	002E	PVTLFXC		0160	00A0	PVTSCAN	(EQU)	0424	01A8	PVTVVRS	
0048	0030	PVTLFXL		0160	00A0	PVTALOCQ		0428	01AC	PVTMVPG	
0050	0032	PVTSFXL		0172	00AC	PVTAUQ		0432	01B0	PVTTIMEX	
0052	0034	PVTBFXL		0184	00B8	PVTPGIOQ		0436	01B4	PVTMVPG2	
0054	0036	PVTTBASE		0196	00C4	PVTMIGQH		0440	01B8	PVTPSQA1	
0056	0038	PVTSQACT		0208	00D0	PVTSWAP		0444	01BC	PVTRECSV	
0058	003A	PVTLFXTF		0220	00DC	PVTSRRQ		0448	01C0	PVTSINSV	
0060	003C	PVTSFXTF		0232	00E8	PVTDPSTQ		0452	01C4	PVTADRSV	
0062	003E	PVTBFXTF		0244	00F4	PVTTSKPQ		0456	01C8	PVTHRLIM	
0064	0040	PVTINTSK		0256	0100	PVTIOAQA		0458	01CA	PVTLRLIM	
0066	0042	PVTDYNA		0256	0100	PVTSCND	(EQU)	0460	01CC	PVTHALIM	
0068	0044	PVTSFXDQ		0268	010C	PVTFREEQ		0462	01CE	PVTLALIM	
0076	004C	PVTBFXDQ		0280	0118	PVTRSV6		0464	01D0	PVTIMEAD	
0084	0054	PVTRSV1		0280	0118	PVTTSCND	(EQU)	0466	01D2	PVTSHUT	
0088	0058	PVTPFTP		0292	0124	PVTNPOUT		0468	01D4	PVTRSV11	
0092	005C	PVTFPFN		0296	0128	PVTNPIN		0480	01E0	PVTSPSTI	
0094	005E	PVTLPFN		0300	012C	PVTSPOUT		0484	01E4	PVTSPSCT	
0096	0060	PVTRSV0		0304	0130	PVTSPIN		0488	01E8	PVTRSVE	
0098	0062	PVTVEQR		0308	0134	PVTNSWAP		0489	01E9	PVTRSV14	
0100	0064	PVTPFTQS	(EQU)	0312	0138	PVTNPMIG		0492	01EC	PVTPGMCK	
0100	0064	PVTQ00		0316	013C	PVTNPREC		0496	01F0	PVTRSV16	
0101	0065	PVTQ01		0320	0140	PVTNRM		0504	01F8	PVTRSV17	
0102	0066	PVTQ10		0324	0144	PVTRSV7		0512	0200	PVTRSV18	
0103	0067	PVTQ11		0328	0148	PVTAPVEC		0528	0210	PVTRSV19	
0104	0068	PVTAVFST		0332	014C	PVTIOER1		0544	0220	PVTLEN	(EQU)
0106	006A	PVTAVLOW		0332	014C	PVTIOERR		0544	0220	PVTEND	
0108	006C	PVTHQ		0333	014D	PVTIOER2					

ALPHABETICAL LIST OF FIELDS IN PVT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
PVTACTIV	0112	0070	PVTDPSTQ	0232	00E8	PVTFXC	0044	002C	
PVTADRSV	0452	01C4	PVTDYNA	0066	0042	PVTHALIM	0460	01CC	
PVTALOCQ	0160	00A0	PVTEND	0544	0220	PVTHQ	0108	006C	
PVTAPC	0002	0002	PVTFAC1Q	0112	0070	PVTHRLIM	0456	01C8	
PVTAPVEC	0328	0148	PVTFAC2Q	0116	0074	PVTIMEAD	0464	01D0	
PVTAUQ	0172	00AC	PVTFAC3Q	0120	0078	PVTINTSK	0064	0040	
PVTAVFST	0104	0068	PVTFAC4Q	0124	007C	PVTIOAQA	0256	0100	
PVTAVLOW	0106	006A	PVTFLAG1	0000	0000	PVTIOERR	0332	014C	
PVTBAKUP	0015	000F	PVTFLAG2	0008	0008	PVTIOER1	0332	014C	
PVTBATCM	0038	0026	PVTFLAG3	0014	000E	PVTIOER2	0333	014D	
PVTBFXDQ	0076	004C	PVTFPFN	0092	005C	PVTLACTV	0128	0080	(EQU)
PVTBFXL	0052	0034	PVTFREEQ	0268	010C	PVTLAC1Q	0114	0072	
PVTBFXTF	0062	003E	PVTFRESQ	0128	0080	PVTLAC2Q	0118	0076	
PVTCHPGQ	0136	0088	PVTFSQAQ	0132	0084	PVTLAC3Q	0122	007A	

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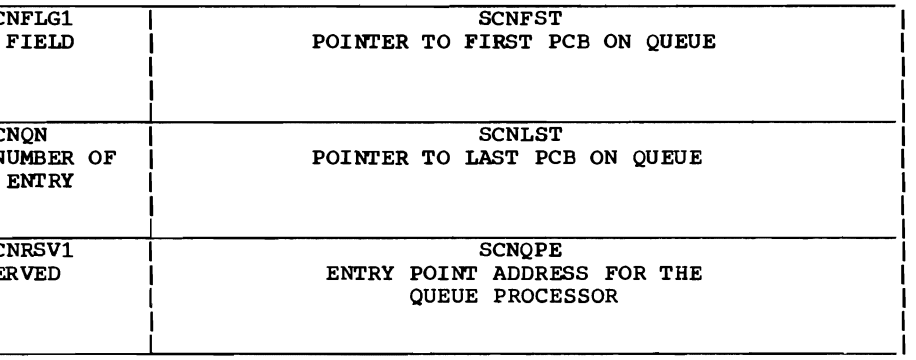
FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
PVTLAC4Q	0126	007E		PVTPSQA	0340	0154		PVTSRRQ	0220	00DC	
PVTLALIM	0462	01CE		PVTPSQA1	0440	01B8		PVTSUCM	0020	0014	
PVTLAPC	0012	000C		PVTQ00	0100	0064		PVTSWAP	0208	00D0	
PVTLEN	0544	0220	(EQU)	PVTQ01	0101	0650		PVTTBASE	0054	0036	
PVTLFXC	0046	002E		PVTQ10	0102	0066		PVTTIMEX	0432	01B0	
PVTLFXL	0048	0030		PVTQ11	0103	0067		PVTTOTAX	0016	0010	
PVTLFXTF	0058	003A		PVTRECSV	0444	01BC		PVTTSBU	0042	002A	
PVTLHQ	0110	006E		PVTREPCT	0006	0006		PVTTSCND	0280	0118	(EQU)
PVTLOGB	0040	0028		PVTRPLSW	0001	0001		PVTTSKPQ	0244	00F4	
PVTLPFN	0094	005E		PVTRSVE	0488	01E8		PVTTSOCM	0032	0020	
PVTLRESQ	0130	0082		PVTRSV0	0096	0060		PVTTSOU	0028	001C	
PVTLRLIM	0458	01CA		PVTRSV1	0084	0054		PVTVALOC	0344	0158	
PVTLSQAQ	0134	0086		PVTRSV11	0468	01D4		PVTVAPPI	0348	015C	
PVTLTH	0004	0004		PVTRSV14	0489	01E9		PVTVAUXS	0352	0160	
PVTMAXB	0036	0024		PVTRSV16	0496	01F0		PVTVAUX2	0356	0164	
PVTMAXT	0024	0018		PVTRSV17	0504	01F8		PVTVBPCB	0360	0168	
PVTMIGQH	0196	00C4		PVTRSV18	0512	0200		PVTVCLR2	0364	016C	
PVTMIGRB	0148	0094		PVTRSV19	0528	0210		PVTVCLR3	0368	0170	
PVTMVPG	0428	01AC		PVTRSV5	0156	009C		PVTVEQR	0098	0062	
PVTMVPG2	0436	01B4		PVTRSV6	0280	0118		PVTVFP	0372	0174	
PVTNACQ	0004	0004	(EQU)	PVTRSV7	0324	0144		PVTVFP2	0376	0178	
PVTNPDTE	0152	0098		PVTSCAN	0160	00A0	(EQU)	PVTVMPCB	0380	017C	
PVTNPIN	0296	0128		PVTSCND	0256	0100	(EQU)	PVTVPIOP	0384	0180	
PVTNPMIG	0312	0138		PVTSFXDQ	0068	0044		PVTVRFL	0416	01A0	
PVTNPOUT	0292	0124		PVTSFXL	0050	0032		PVTVRLS2	0388	0184	
PVTNPREC	0316	013C		PVTSFXTF	0060	003C		PVTVRLS3	0392	0188	
PVTNRM	0320	0140		PVTSHUT	0466	01D2		PVTVROOT	0140	008C	
PVTNSWAP	0308	0134		PVTSINSV	0448	01C0		PVTVRPCB	0396	018C	
PVTPAPC	0010	000A		PVTSPIN	0304	0130		PVTVRPLS	0400	0190	
PVTPDT	0153	0099		PVTSPOUT	0300	012C		PVTVRQS	0404	0194	
PVTPFTP	0088	0058		PVTSPSCT	0484	01E4		PVTVSER	0408	0198	
PVTPFTQS	0100	0064	(EQU)	PVTSPSTI	0480	01E0		PVTVSER2	0412	019C	
PVTPGIOQ	0184	00B8		PVTSQACR	0009	0009		PVTVTERM	0420	01A4	
PVTPGMCK	0492	01EC		PVTSQACT	0056	0038		PVTVVRS	0424	01A8	
PVTPSIBR	0336	0150		PVTSRQ	0144	0090					

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PVTFLAG1	PVT FLAGS (I/O FLIH	PVTPWB	X'80'	POST WORK BIT - WHEN 1, THERE IS WORK FOR POST ROUTINE
		PVTBIGM	X'40'	WHEN 1, BUILDPCB CANNOT BE ENTERED FROM ALLOCATE SQA (DON'T CALL PAGE REPLACEMENT SWITCH - TO AVOID RECURSION TO IEAPSQA)
		PVTBGMS	X'20'	WHEN 1, GETMAIN SQA ENTRY INHIBITED TO BUILD PCB (DON'T CALL GETMAIN SWITCH - SET BY GETMAIN)
		PVTMGFLG	X'10'	WHEN 1, MIGRATION IN PROCESS
		PVTMIGAB	X'08'	ABEND MIGRATION FLAG
		PVTSTUFM	X'04'	WHEN 1 SELECT TSO USER FOR MIGRATION
		PVTFRCF	X'02'	WHEN 1, SET FIX COUNTS TO 0 IN FREE INTERFACE, MULT FREE IN SINGLE CALL
		PVTFXMCM	X'01'	WHEN 1, ALLOW DSS LONG-FIX ENTRY TO EXCEED ALL FIX THRESHOLD
PVTFLAG2	FLAG BYTE 2	PVTANYFR	X'80'	WHEN 1, 'ANY FREEPAGE' NEEDED BY V=R FLUSH
		PVTRRTP	X'40'	A VALUE OF 1 INDICATES THAT THE TASK POST PROCESSOR SHOULD RELEASE THE RESERVED/REPLENISH QUEUE
PVTFLAG3	CHECKTHRESH FLAGS	PVTTHRC4	X'80'	WHEN 1, THE PAGEING SUPERVISOR THRESHOLD CHECKING ROUTINE WAS ENTERED WHEN AT LEAST ONE THRESHOLD FLAG WAS SET. (A RETURN CODE 4 WAS GIVEN TO CHECKTRESH ROUTINE)
		PVTTHRTD	X'40'	WHEN 1, TASK DISABLE SHUTDOWN COUNT NOT 0
PVTPGMCK		PVTPCPSI	X'80'	IEAPSI IN CONTROL
		PVTPCPIX	X'40'	IEAPIX IN CONTROL
		PVTPCSQA	X'20'	IEAPSA IN CONTROL
		PVTPCVRA	X'10'	IEAVRAL IN CONTROL
		PVTPCVXF	X'08'	IEAVRFL IN CONTROL
		PVTPCIOP	X'04'	IEAPIOP IN CONTROL
		PVTPCCLA	X'02'	IEAPCLR2 IN CONTROL

STORAGE MAP OF SCNTE



DISPLACEMENT LIST OF FIELDS IN SCNTE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	SCNFLG1	0004	0004	SCNLSTF	0009	0009	SCNQPE	
0000	0000	SCNFSTF	0005	0005	SCNLST	0012	000C	SCNLEN	(EQU)
0001	0001	SCNFST	0008	0008	SCNRSV1	0012	000C	SCNEND	
0004	0004	SCNQN	0008	0008	SCNQPEF				

ALPHABETICAL LIST OF FIELDS IN SCNTE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
SCNEND	0012	000C	SCNLEN	0012	000C	(EQU)	SCNQPE	0009	0009
SCNFLG1	0000	0000	SCNLST	0005	0005		SCNQPEF	0008	0008
SCNFST	0001	0001	SCNLSTF	0004	0004		SCNRSV1	0008	0008
SCNFSTF	0000	0000	SCNQN	0004	0004				

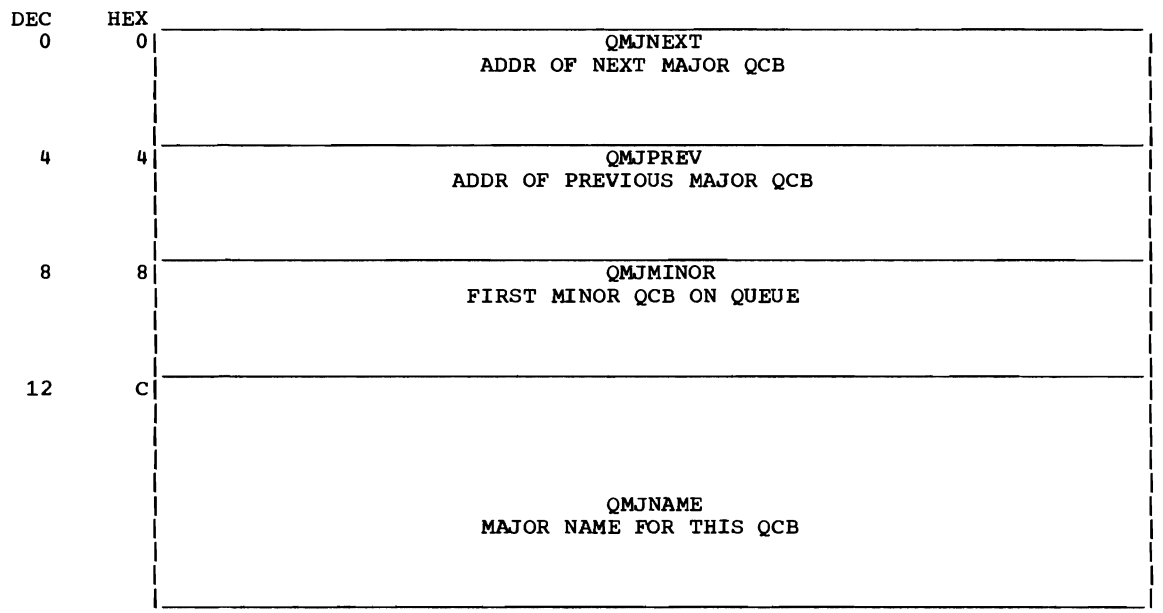
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SCNFLG1	FLAG FIELD	SCNQF	X'80'	QUEUE FLAG - PCB'S ARE ATTACHED
		SCNSF	X'40'	SUPPRESS FLAG - QUEUE PROCESSOR CANNOT PROCESS THE QUEUE
		SCNQIPF	X'20'	Q PROCESSOR IS PROCESSING FLAG

QCB (Queue Control Block)

Total size: 16 bytes
Created by: ENQ routine
Purpose: Used to serialize the use of a resource. The major queue control block represents a set of resources. The minor queue control block represents a single resource. (The storage map and tables for QCBMIN - the minor queue control block - follow these for QCBMAJ, below.)

STORAGE MAP OF QCBMAJ



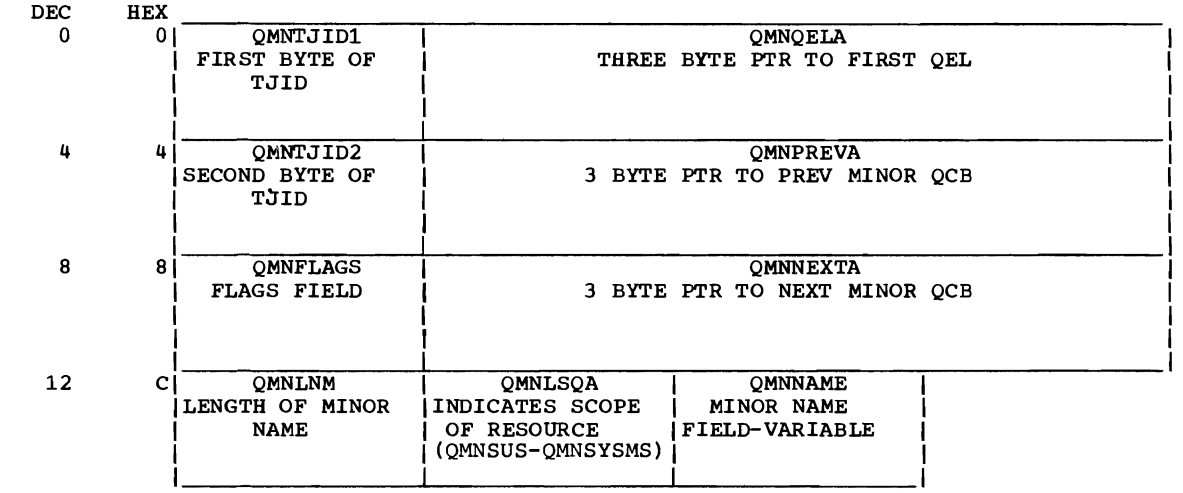
DISPLACEMENT LIST OF FIELDS IN QCBMAJ

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	QMJNEXT	0004	0004	QMJPREV	0008	0008	QMJMINOR
						0012	000C	QMJNAME

ALPHABETICAL LIST OF FIELDS IN QCBMAJ

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
QMJMINOR	0008	0008	QMJNAME	0012	000C	QMJNEXT	0000	0000
						QMJPREV	0004	0004

STORAGE MAP OF QCBMIN



DISPLACEMENT LIST OF FIELDS IN QCBMIN

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	QMNTJID1	0005	0005	QMNPREVA	0013	000D	QMNLSQA	
0000	0000	QMNQEL	0008	0008	QMNFLAGS	0014	000E	QMNNAME	
0001	0001	QMNQELA	0008	0008	QMNNEXT	0254	00FE	QMNSYSMS	(EQU)
0004	0004	QMNTJID2	0009	0009	QMNNEXTA	0255	00FF	QMNSYS	(EQU)
0004	0004	QMNPREV	0012	000C	QMNLNM				

ALPHABETICAL LIST OF FIELDS IN QCBMIN

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
QMNFLAGS	0008	0008	QMNNEXTA	0009	0009	QMNSYS	0255	00FF	(EQU)
QMNLNM	0012	000C	QMNPREV	0004	0004	QMNSYSMS	0254	00FE	(EQU)
QMNLSQA	0013	000D	QMNPREVA	0005	0005	QMNTJID1	0000	0000	
QMNNAME	0014	000E	QMNQEL	0000	0000	QMNTJID2	0004	0004	
QMNNEXT	0008	0008	QMNQELA	0001	0001				

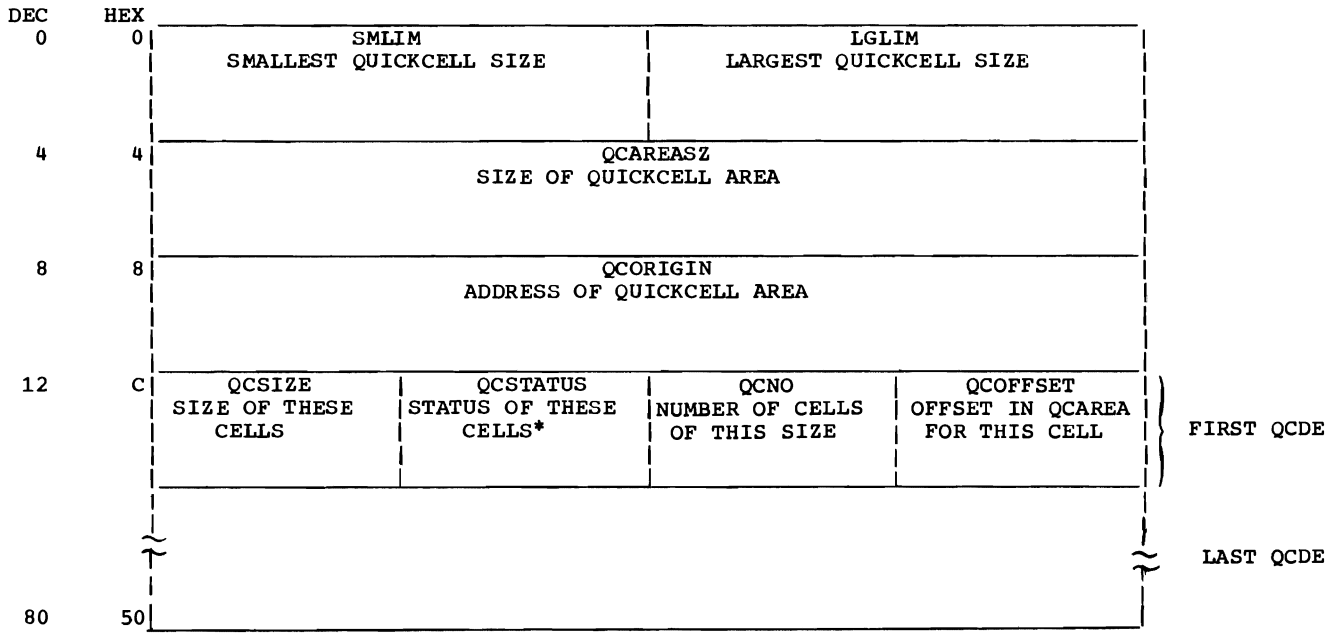
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
QMNFLAGS	FLAGS FIELD	QMNUNAVL	X'80'	RESOURCE PERMANENTLY UNAVAILABLE

QCDBLK (Quickcell Descriptor Block)

Total size: 84 bytes
Created by: IEAPLSQA or IEAVNIPX
Purpose: Describes the quickcell area in either the system queue area or a local system queue area.

STORAGE MAP OF QCDBLK



DISPLACEMENT LIST OF FIELDS IN QCDBLK

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SMLIM	0008	0008	QCORIGIN	0014	000E	QCOFF
0000	0000	QCLIMITS	0012	000C	QCSIZE	0014	000E	QCOFFSET
0002	0002	LGLIM	0012	000C	QCDE	0014	000E	QCNO
0004	0004	QCAREASZ	0013	000D	QCSTATUS			

ALPHABETICAL LIST OF FIELDS IN QCDBLK

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
LGLIM	0002	0002	QCNO	0014	000E	QCSIZE	0012	000C
QCAREASZ	0004	0004	QCOFF	0014	000E	QCSTATUS	0013	000D
QCDE	0012	000C	QCOFFSET	0014	000E	SMLIM	0000	0000
QCLIMITS	0000	0000	QCORIGIN	0008	0008			

*BIT SETTINGS FOR BITS 4-11 DEFINE THE ALLOCATION STATUS OF CELLS 1-8 OF THIS SIZE RESPECTIVELY. A VALUE OF 0 INDICATES THAT THE CELL IS FREE. A VALUE OF 1 INDICATES THE CELL IS ALLOCATED.

QEL (Queue Element)

Total size: 16 bytes
Created by: ENQ routine
Purpose: Used to serialize the use of a resource. Each QEL represents a request for a single resource.

STORAGE MAP OF QEL

DEC	HEX		
0	0	QELSMC STATUS BYTE	QELNQELA ADDRESS OF NEXT QEL
4	4	QELCODE FLAG BYTE	QELLQELA ADDRESS OF PRECEEDING QEL OR MINOR QCB IF THIS QEL IS FIRST
8	8	QELTJID1 FIRST HALF TS JOB'S ID	QELTCBA ADDRESS OF TCB UNDER WHICH QEL WAS ISSUED
12	C	QELTJID2 SECOND HALF TS JOB'S ID	QELSVRBA ADDRESS OF SVRB FOR ENQ ROUTINE

DISPLACEMENT LIST OF FIELDS IN QEL

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	QELSMC	0004	0004	QELLQEL	0009	0009	QELTCBA
0000	0000	QELNQEL	0005	0005	QELLQELA	0012	000C	QELTJID2
0001	0001	QELNQELA	0008	0008	QELTJID1	0012	000C	QELSVRB
0004	0004	QELCODE	0008	0008	QELTCB	0013	000D	QELSVRBA

ALPHABETICAL LIST OF FIELDS IN QEL

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
QELCODE	0004	0004	QELNQELA	0001	0001	QELTCB	0008	0008
QELLQEL	0004	0004	QELSMC	0000	0000	QELTCBA	0009	0009
QELLQELA	0005	0005	QELSVRB	0012	000C	QELTJID1	0008	0008
QELNQEL	0000	0000	QELSVRBA	0013	000D	QELTJID2	0012	000C

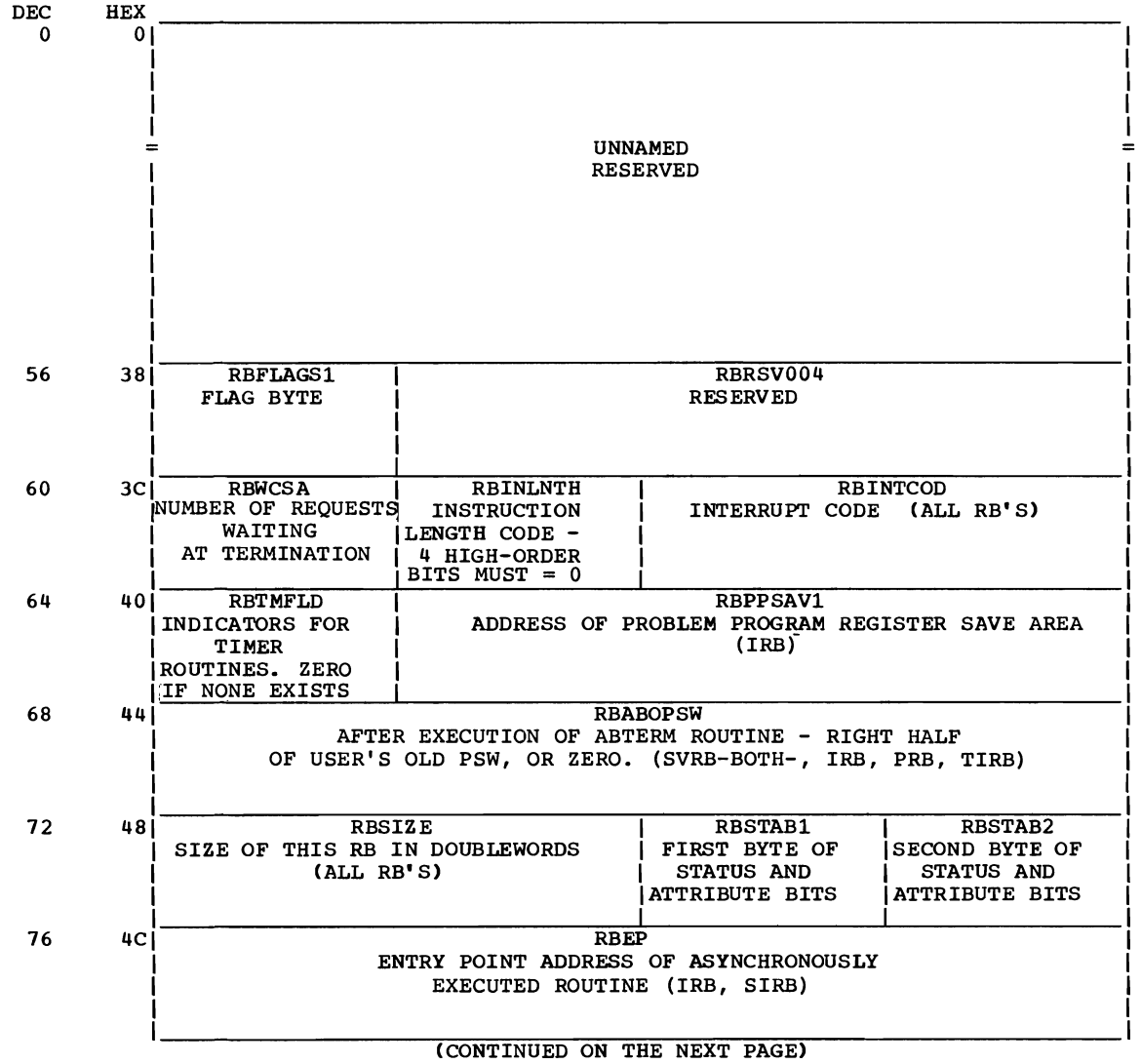
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
QELCODE	FLAG BYTE	QELSHAR	X'80'	SHARED QEL
		QELRESV	X'40'	RESERVE REQUEST
		QELRBWT	X'20'	DEFER SVRB PROCESSNG TILL SWAP
		QELNQECB	X'10'	ENQUEUED WITH ECB
		QELRLSE	X'08'	DELAYED RELEASE
		QELEXCP	X'04'	EXCP HAS BEEN INITD TO RELEASE
		QELSTAT	X'02'	STATUS SET PENDING
		QELABEND	X'01'	QEL FOR TASK IN ABEND
QELSMC	STATUS BYTE	QELSYSMC	X'20'	SET SYSTEM MUST COMPLETE
		QELSTPMC	X'10'	SET STEP MUST COMPLETE

RB (Request Block)

Total size: 164-plus bytes
Created by: SIRB (Stage 3 Exit Effector), SVRB (SVC Interruption Handlers), PRB (LINK routine), TIRB and IRB (Stage 1 Exit Effector)
Purpose: The SIRB (system interruption request block) is used by the supervisor for maintaining information concerning input/output error-handling routines. SVRBs (supervisor request blocks) maintain information concerning Type 2, 3, or 4 SVC routines. PRBs (program request blocks) maintain information concerning nonsupervisory routines that must be executed in the performance of a task. TIRBs (task interruption request blocks) allow control program services to be performed asynchronously in cases where synchronous execution is impossible. IRBs (interruption request blocks) maintain information concerning an asynchronously executed routine. RBs are normally referenced at displacement X'40', so that all preceding RB fields are viewed as having negative displacements.

STORAGE MAP OF RB



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DEC	HEX		
80	50	RBOPSW USER'S OLD PSW (ALL RB'S)	
88	58	UNNAMED ZERO	RBPGMQ1 ADDRESS OF RB INDICATING A REQUEST TO USE SAME SERIALLY REUSEABLE PROGRAM (SVRB - RES, PRB)
92	5C	RBWCF NUMBER OF REQUESTS WAITING (WAIT COUNT) (ALL RBs)	RBLINKB ADDRESS OF PREVIOUS RB, OR ADDRESS OF TCB WHEN THIS IS A FIRST RB ON THE QUEUE (ALL RBs)
96	60	RBGRS0 SAVE AREA FOR GENERAL REGISTER 0	
100	64	RBGRS1 SAVE AREA FOR GENERAL REGISTER 1	
104	68	RBGRS2 SAVE AREA FOR GENERAL REGISTER 2	
108	6C	RBGRS3 SAVE AREA FOR GENERAL REGISTER 3	
112	70	RBGRS4 SAVE AREA FOR GENERAL REGISTER 4	
116	74	RBGRS5 SAVE AREA FOR GENERAL REGISTER 5	
120	78	RBGRS6 SAVE AREA FOR GENERAL REGISTER 6	
124	7C	RBGRS7 SAVE AREA FOR GENERAL REGISTER 7	
128	80	RBGRS8 SAVE AREA FOR GENERAL REGISTER 8	

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DEC	HEX	
132	84	RBGRS9 SAVE AREA FOR GENERAL REGISTER 9
136	88	RBGRS10 SAVE AREA FOR GENERAL REGISTER 10
140	8C	RBGRS11 SAVE AREA FOR GENERAL REGISTER 11
144	90	RBGRS12 SAVE AREA FOR GENERAL REGISTER 12
148	94	RBGRS13 SAVE AREA FOR GENERAL REGISTER 13
152	98	RBGRS14 SAVE AREA FOR GENERAL REGISTER 14
156	9C	RBGRS15 SAVE AREA FOR GENERAL REGISTER 15
160	A0	RBEXSAVE EXTENDED SAVE AREA FOR SVC ROUTINES (SVRB-BOTH)

ORG RBPPSAV - FOR SIRB

64	40	RBEXRTNM EIGHT-CHARACTER NAME OF ERROR EXIT ROUTINE (SIRB)

ORG RBEP - FOR SVRB-BOTH AND PRB

76	4C	RBCDFLGS CONTROL FLAGS	RBCDE1 ADDRESS OF CDE FOR MODULE THAT THIS RB IS ASSOCIATED WITH (SVRB-RES, PRB) ADDRESS OF LPDE (SVRB-TRANS)

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ORG RBPGMQ - FOR TIRB

DEC	HEX		
88	58	UNNAMED RBUSE - CONTAINS ZEROS	RBSQEA CHAIN OF SUPERVISOR QUEUE ELEMENTS (SQE) REPRESENTING ASYNCHROUNOUS SUPERVISOR SERVICE REQUESTS RELATED TO TCB FOR CURRENT TIRB

ORG RBPGMQ - FOR IRB (3-BYTE LINK FIELD SEGMENT)

DEC	HEX		
88	58	RBUSE USE COUNT USED BY ATTACH (IRB)	RBIQE1 LIST ORIGIN FOR IQE (IRB)

ORG RBPGMQ - FOR IRB (2-BYTE LINK FIELD SEGMENT), SIR

DEC	HEX		
88	58	RBRSV011 RESERVED	RBIQEA LIST ORIGIN FOR RQE (IRB WITH 2-BYTE LINK FIELD SEGMENT, SIRB)

ORG RBEXSAVE - FOR IRB--FIELDS PRESENT ONLY IF REQUESTED

DEC	HEX	
160	A0	RBNEXAV ADDRESS OF NEXT AVAILABLE IQE (IRB)
164	A4	RBIQEWRK IQE WORK SPACE, VARIABLE LENGTH, MAXIMUM SIZE IS 1984 BYTES (IRB)

DISPLACEMENT LIST OF FIELDS IN RB

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0008	0008	RBPRFLNA	(EQU)	0076	004C	RBCDE		0104	0068	TIRBLEN	(EQU)
0040	0028	SIRBLEN	(EQU)	0076	004C	RBEP		0104	0068	RBGRS2	
0040	0028	PRBLEN	(EQU)	0077	004D	RBCDE1		0108	006C	RBGRS3	
0056	0038	RBFLAGS1		0080	0050	RBOPSW		0112	0070	RBGRS4	
0056	0038	RBPRFXST		0088	0058	RBRSV011		0116	0074	RBGRS5	
0057	0039	RBRSV004		0088	0058	RBIQE2		0120	0078	RBGRS6	
0060	003C	RBWCSA		0088	0058	RBUSE		0124	007C	RBGRS7	
0061	003D	RBINLNTH		0088	0058	RBIQE		0128	0080	RBGRS8	
0061	003D	RBINTCDA		0088	0058	RBSQE		0132	0084	RBGRS9	
0062	003E	RBINTCOD		0088	0058	RBPGMQ		0136	0088	RBGRS10	
0064	0040	RBEXRTNM		0089	0059	RBIQE1		0140	008C	RBGRS11	
0064	0040	RBPRFXLN	(EQU)	0089	0059	RBSQEA		0144	0090	RBGRS12	
0064	0040	RBTMFLD		0089	0059	RBPGMQ1		0148	0094	RBGRS13	
0064	0040	RBPPSAV		0090	005A	RBIQEA		0152	0098	SVRBLEN	(EQU)
0064	0040	RBSECT	(EQU)	0092	005C	RBWCF		0152	0098	RBGRS14	
0064	0040	RBPRFXND		0092	005C	RBLINK		0156	009C	RBGRS15	
0065	0041	RBPPSAV1		0093	005D	RBLINKB		0160	00A0	RBNEXAV	
0068	0044	RBABOPSW		0096	0060	RBGRS0		0160	00A0	RBEXSAVE	
0072	0048	RBSIZE		0096	0060	RBGRSAVE		0160	00A0	IRBEND	
0074	004A	RBSTAB1		0096	0060	SIRBEND		0160	00A0	TIRBEND	
0074	004A	RBSTAB		0096	0060	PRBEND		0164	00A4	RBIQEWRK	
0075	004B	RBSTAB2		0100	0064	RBGRS1		0208	00D0	SVRBEND	
0076	004C	RBCDFLGS		0104	0068	IRBLEN	(EQU)				

ALPHABETICAL LIST OF FIELDS IN RB

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
IRBEND	0160	00A0		RBGRS4	0112	0070		RBPRFXLN	0064	0040	(EQU)
IRBLEN	0104	0068	(EQU)	RBGRS5	0116	0074		RBPRFXND	0064	0040	
PRBEND	0096	0060		RBGRS6	0120	0078		RBPRFXST	0056	0038	
PRBLEN	0040	0028	(EQU)	RBGRS7	0124	007C		RBRSV004	0057	0039	
RBABOPSW	0068	0044		RBGRS8	0128	0080		RBRSV011	0088	0058	
RBCDE	0076	004C		RBGRS9	0132	0084		RBSECT	0064	0040	(EQU)
RBCDE1	0077	004D		RBINLNTH	0061	003D		RBSIZE	0072	0048	
RBCDFLGS	0076	004C		RBINTCDA	0061	003D		RBSQE	0088	0058	
RBEP	0076	004C		RBINTCOD	0062	003E		RBSQEA	0089	0059	
RBEXRTNM	0064	0040		RBIQE	0088	0058		RBSTAB	0074	004A	
RBEXSAVE	0160	00A0		RBIQEA	0090	005A		RBSTAB1	0074	004A	
RBFLAGS1	0056	0038		RBIQEWRK	0164	00A4		RBSTAB2	0075	004B	
RBGRSAVE	0096	0060		RBIQE1	0089	0059		RBTMFLD	0064	0040	
RBGRS0	0096	0060		RBIQE2	0088	0058		RBUSE	0088	0058	
RBGRS1	0100	0064		RBLINK	0092	005C		RBWCF	0092	005C	
RBGRS10	0136	0088		RBLINKB	0093	005D		RBWCSA	0060	003C	
RBGRS11	0140	008C		RBNEXAV	0160	00A0		SIRBEND	0096	0060	
RBGRS12	0144	0090		RBOPSW	0080	0050		SIRBLEN	0040	0028	(EQU)
RBGRS13	0148	0094		RBPGMQ	0088	0058		SVRBEND	0208	00D0	
RBGRS14	0152	0098		RBPGMQ1	0089	0059		SVRBLEN	0152	0098	(EQU)
RBGRS15	0156	009C		RBPPSAV	0064	0040		TIRBEND	0160	00A0	
RBGRS2	0104	0068		RBPPSAV1	0065	0041		TIRBLEN	0104	0068	(EQU)
RBGRS3	0108	006C		RBPRFLNA	0008	0008	(EQU)				

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
RBCDFLGS	CONTROL FLAGS	RBRSV008	X'80'	RESERVED
		RBRSV009	X'40'	RESERVED
		RBCDATCH	X'20'	CONTENTS SUPERVISION HAS BEEN ENTERED
		RBRSV010	X'10'	RESERVED
		RBCDNODE	X'08'	NO DE SAVE AREA REQUIRED
		RBCDSYNC	X'04'	SYNCH MACRO INSTRUCTION REQUESTED
		RBCDXCTL	X'02'	XCTL MACRO INSTRUCTION REQUESTED
		RBCDLOAD	X'01'	LOAD MACRO INSTRUCTION REQUESTED
RBFLAGS1	FLAG BYTE	RBSLOCK	X'80'	INDICATES THAT THIS RB IS NON-DISPATCHABLE UNTIL CVTSYLK IS RESET
		RBXWAIT	X'40'	INDICATES THAT THE PROGRAM OPERATING UNDER THIS RB ISSUED AN EXPLICIT WAIT
		RBABEND	X'20'	ABEND SVRB (SVRB-BOTH)
		RBUPR	X'10'	INDICATES THAT ADDRESS OF A PIE HAS BEEN PLACED IN FIRST WORD OF RBEXSAVE AND A SUPERVISOR SPIE CAN BE SCHEDULED FOR UPRs
		RBASIR	X'08'	ASIR IS RUNNING UNDER THIS RB
		RBRSV001	X'04'	RESERVED
		RBRSV002	X'02'	RESERVED
		RBRSV003	X'01'	RESERVED
RBSTAB1	FIRST BYTE OF STATUS AND ATTRIBUTE BITS	RBFTP	X'E0'	TYPE OF RB
		RBFTPRB	X'00'	PRB
		RBFTTIRB	X'60'	TIRB
		RBFTIRB	X'40'	IRB
		RBFTSIRB	X'80'	SIRB
		RBFTSVRB	X'C0'	SVRB
		RBTRSVRB	X'10'	SVRB FOR TRANSIENT SVC ROUTINES
		RBFNSVRB	X'10'	ALIAS FOR RBTRSVRB
		RBWAITP	X'08'	INDICATES THAT AN ECB IS POINTING AT THE RB
		RBFTCKPT	X'04'	A CHECKPOINT MAY BE

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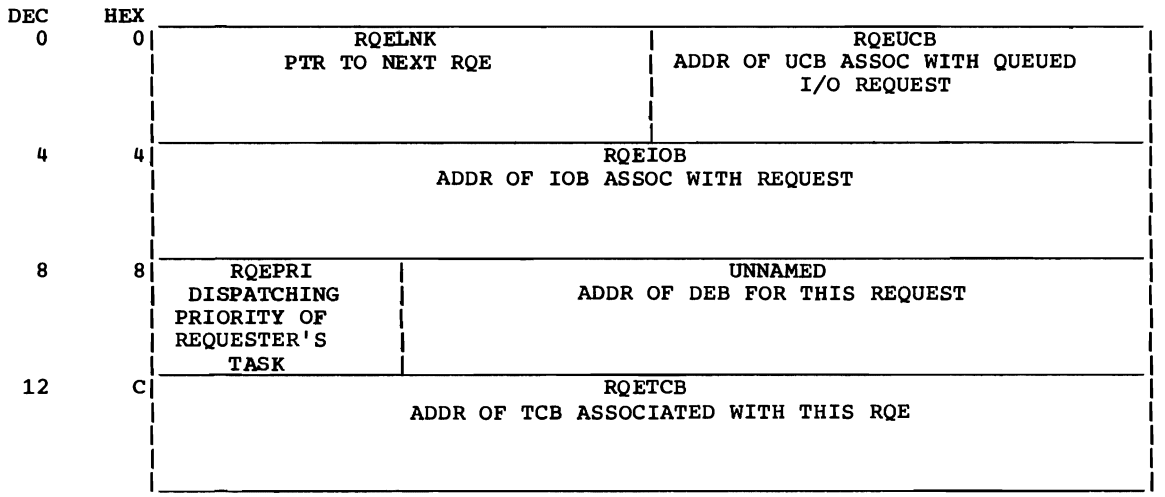
FLAG	CONTAINS	MASK	VALUE	MEANS
				TAKEN IN A USER EXIT FROM THIS SVC ROUTINE
		RBATNXIT	X'02'	THIS IRB IS AN ATTENTION IRB
		RBRSV007	X'01'	RESERVED
RBSTAB2	SECOND BYTE OF STATUS AND ATTRIBUTE BITS	RBTCBNXT	X'80'	RBLINK FIELD POINTS TO TCB (ALL RB'S)
		RBFACTV	X'40'	IRB OR SIRB IS QUEUED TO TCB - PROGRAM IS ACTIVE
		RBATTN	X'20'	EXITING PROGRAM IS AN ATTENTION EXIT (IRB)
		RBETXR	X'10'	IRB IS FOR AN ETXR EXIT ROUTINE
		RBUSIQE	X'10'	SAME AS RBETXR
		RBIQETP	X'0C'	
		RBEQENR	X'00'	REQUEST QUEUE ELEMENT IS NOT TO BE RETURNED
		RBIRBAER	X'04'	IRB HAS QUEUE ELEMENTS FOR ASYNCHRONOUSLY EXECUTED IQE ROUTINES THAT ARE RQES
		RBIQENR	X'08'	IQE IS NOT TO BE RETURNED AT EXIT
		RBIRBAIQ	X'0C'	IRB HAS QUEUE ELEMENTS FOR ASYNCHRONOUSLY EXECUTED IQE ROUTINES
		RBFDYN	X'02'	RB STORAGE CAN BE FREED AT EXIT
		RBECBWT	X'01'	IF ZERO, WAIT FOR A SINGLE EVENT OR ALL EVENTS - IF 1, WAIT FOR LESS THAN ALL WAITING EVENTS
RBTMFLD	INDICATORS FOR TIMER ROUTINES. WHEN THERE ARE NO TIMER ROUTINES - ZERO (IRB).	RBTMQUE	X'80'	TIMER ELEMENT NOT ON QUEUE
		RBTMTOD	X'40'	LOCAL TIME-OF-DAY OPTION IS USED
		RBRSV005	X'20'	RESERVED
		RBRSV006	X'10'	RESERVED
		RBTMCMP	X'08'	INTERVAL HAS EXPIRED
		RBTMIND2	X'04'	EXIT SPECIFIED WITH TASK OR REAL REQUEST
		RBTMIND3	X'03'	TYPE OF REQUEST
		RBTREQ	X'00'	TASK REQUEST
		RBWREQ	X'01'	WAIT REQUEST
		RBRREQ	X'03'	REAL REQUEST

RQE (Request Queue Element)

Total size: 16 bytes
Created by: Data management routines
Purpose: Used to schedule asynchronous exit routines for data management.

STORAGE MAP OF RQE



DISPLACEMENT LIST OF FIELDS IN RQE

DEC	HEX	FIELD	DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	RQELNK	0004	0004	RQEIDT		0008	0008	RQETJID1
0002	0002	RQEUCB	0008	0008	RQEDEB	(EQU)	0012	000C	RQETCB
0004	0004	RQEIOB	0008	0008	RQEPRI		0012	000C	RQETJID2

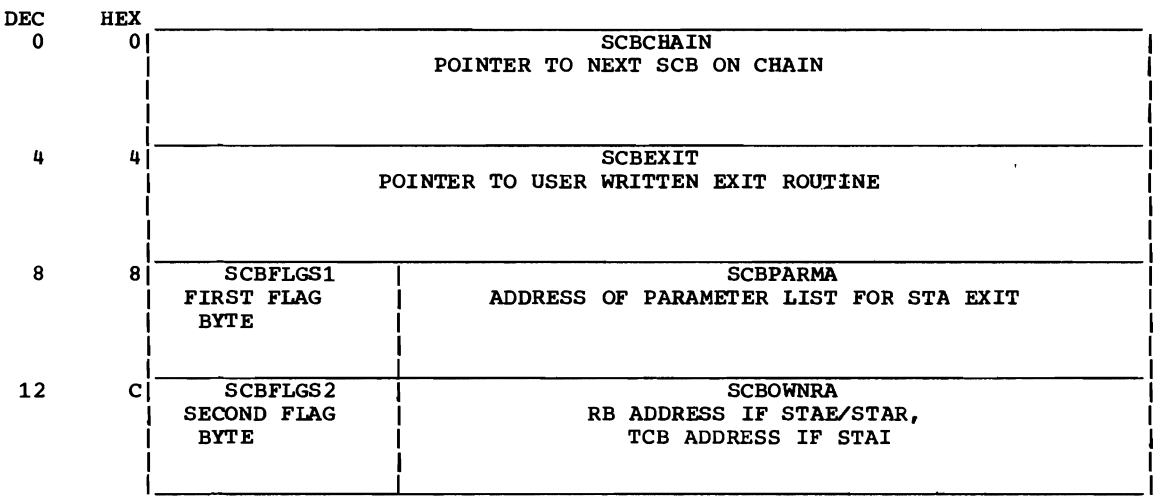
ALPHABETICAL LIST OF FIELDS IN RQE

FIELD	DEC	HEX		FIELD	DEC	HEX	FIELD	DEC	HEX
RQEDEB	0008	0008	(EQU)	RQELNK	0000	0000	RQETJID1	0008	0008
RQEIDT	0004	0004		RQEPRI	0008	0008	RQETJID2	0012	000C
RQEIOB	0004	0004		RQETCB	0012	000C	RQEUCB	0002	0002

SCB (STA Control Block)

Total size: 16 bytes
Created by: STA Services routine
Purpose: Contains information to be used by ASIR for scheduling a user's STA exit routine upon abnormal termination of its associated task.

STORAGE MAP OF SCB



DISPLACEMENT LIST OF FIELDS IN SCB

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SCBCHAIN	0008	0008	SCBPARM	0012	000C	SCBOWNR
0004	0004	SCBEXIT	0009	0009	SCBPARMA	0013	000D	SCBOWNRA
0008	0008	SCBFLGS1	0012	000C	SCBFLGS2	0016	0010	SCBEND

ALPHABETICAL LIST OF FIELDS IN SCB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SCBCHAIN	0000	0000	SCBFLGS1	0008	0008	SCBOWNRA	0013	000D
SCBEND	0016	0010	SCBFLGS2	0012	000C	SCBPARM	0008	0008
SCBEXIT	0004	0004	SCBOWNR	0012	000C	SCBPARMA	0009	0009

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SCBFLGS1	FIRST FLAG BYTE	SCBSTAI	X'80'	STAI SCB
		SCBSTAR	X'40'	STAR SCB, OR STAE IF NEITHER SCBSTAJ OR SCBSTAR IS SET
		SCBDUMMY	X'20'	DUMMY SCB - (WILL NOT BE SCHEDULED)
		SCBASYNC	X'04'	ALLOW ASYNCHRONOUS INTERRUPTS
		SCBIOPRC	X'03'	I/O PROCESSING OPTION, BITS 6 AND 7--QUIESCE I/O=00; HALT I/O=01; BYPASS I/O=10.
		SCBNOIOP	X'02'	BYPASS I/O INTERVENTION
		SCBHALT	X'01'	HALT I/O
SCBFLGS2	SECOND FLAG BYTE	SCBXCTL1	X'80'	XCTL ISSUED FROM RB FOR THIS SCB
		SCBXCTL2	X'40'	RETAIN THIS SCB ACROSS XCTL
		SCBINUSE	X'10'	THIS SCB IN USE
		SCBKEY0	X'02'	USER IN KEY 0
		SCBSUPER	X'01'	USER IN SUPERVISOR MODE

SDWA (STA Diagnostic Work Area)

Total size: 104 bytes
Created by: ASIR (ABEND/STA Interface routine)
Purpose: Contains information about an abnormally terminating task. ASIR uses SDWA to schedule user-written diagnostic and retry routines.

STORAGE MAP OF SDWA

DEC	HEX				
0	0	SDWAPARM PARAMETER LIST ADDRESS, OR ZERO			
4	4	SDWACMPF FLAG BITS IN COMPLETION CODE	SDWACMPC SYSTEM COMPLETION CODE (FIRST 12 BITS) AND USER COMPLETION CODE (SECOND 12 BITS) OR AT RETRY, POINTER TO FIRST IOB ON RESTORE CHAIN (OR0)		
8	8	SDWACMKA CHANNEL INTERRUPT MASKS	SDWAMWPA PSW KEY AND 'M-W-P'	SDWAINTA INTERRUPT CODE (LAST 2 BYTES OF INTERRUPT CODE IF I/O INTERRUPTION	BC MODE PSW AT ABEND
12	C	SDWAPMKA INSTRUCTION LENGTH CODE, CONDITION CODE, PROG MASKS	SDWANXTA ADDRESS OF NEXT INSTRUCTION TO BE EXECUTED		
16	10	SDWACMKP CHANNEL INTERRUPT MASKS	SDWAMWPP PSW KEY AND 'M-W-P'	SDWAINTP INTERRUPT CODE (LAST 2 BYTES OF INTERRUPT CODE IF I/O INTERRUPTION	BC MODE PSW AT LAST PRB
20	14	SDWAPMKP INSTRUCTION LENGTH CODE, CONDITION CODE, PROG MASKS	SDWANXTP ADDRESS OF NEXT INSTRUCTION TO BE EXECUTED		
24	18	SDWAGR00 GPR 0			
28	1C	SDWAGR01 GPR 1			
32	20	SDWAGR02 GPR 2			
36	24	SDWAGR03 GPR 3			
40	28	SDWAGR04 GPR 4			

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DEC	HEX	
44	2C	SDWAGR05 GPR 5
48	30	SDWAGR06 GPR 6
52	34	SDWAGR07 GPR 7
56	38	SDWAGR08 GPR 8
60	3C	SDWAGR09 GPR 9
64	40	SDWAGR10 GPR 10
68	44	SDWAGR11 GPR 11
72	48	SDWAGR12 GPR 12
76	4C	SDWAGR13 GPR 13
80	50	SDWAGR14 GPR 14
84	54	SDWAGR15 GPR 15
88	58	SDWARBAD RB ADDRESS OF ABENDING PROGRAM IF SUPERVISOR MODE; CONTAINS PROGRAM NAME OR ZEROS IF PROBLEM PROGRAM MODE
92	5C	UNNAMED CONTAINS ZEROS IF SUPERVISOR MODE; CONTAINS PROGRAM NAME OR ZEROS IF PROBLEM PROGRAM MODE

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DEC	HEX	
96	60	SDWAEPA ENTRY POINT ADDRESS OF ABENDING PROGRAM
100	64	SDWAIOBR POINTER TO ADDRESS OF IOB RESTORE CHAIN ON RETRY (0 IF CONTROL GOES TO EXIT ROUTINE OR, FOR RETRY, IF NO IOB FOUND ON RESTORE CHAIN)

DISPLACEMENT LIST OF FIELDS IN SDWA

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SDWAPARM	0017	0011	SDWAMWPP	0056	0038	SDWAGR08
0004	0004	SDWACMPF	0018	0012	SDWAINTP	0060	003C	SDWAGR09
0004	0004	SDWAABCC	0020	0014	SDWAPMKP	0064	0040	SDWAGR10
0004	0004	SDWAFIOB	0021	0015	SDWANXTP	0068	0044	SDWAGR11
0005	0005	SDWACMPC	0024	0018	SDWAGR00	0072	0048	SDWAGR12
0008	0008	SDWACMKA	0024	0018	SDWAGRSV	0076	004C	SDWAGR13
0008	0008	SDWACTL1	0028	001C	SDWAGR01	0080	0050	SDWAGR14
0009	0009	SDWAMWPA	0032	0020	SDWAGR02	0084	0054	SDWAGR15
0010	000A	SDWAINTA	0036	0024	SDWAGR03	0088	0058	SDWARBAD
0012	000C	SDWAPMKA	0040	0028	SDWAGR04	0088	0058	SDWANAME
0013	000D	SDWANXTA	0044	002C	SDWAGR05	0096	0060	SDWAEPA
0016	0010	SDWACMKP	0048	0030	SDWAGR06	0100	0064	SDWAIOBR
0016	0010	SDWACTL2	0052	0034	SDWAGR07			

ALPHABETICAL LIST OF FIELDS IN SDWA

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SDWAABCC	0004	0004	SDWAGR03	0036	0024	SDWAINTA	0010	000A
SDWACMKA	0008	0008	SDWAGR04	0040	0028	SDWAINTP	0018	0012
SDWACMKP	0016	0010	SDWAGR05	0044	002C	SDWAIOBR	0100	0064
SDWACMPC	0005	0005	SDWAGR06	0048	0030	SDWAMWPA	0009	0009
SDWACMPF	0004	0004	SDWAGR07	0052	0034	SDWAMWPP	0017	0011
SDWACTL1	0008	0008	SDWAGR08	0056	0038	SDWANAME	0088	0058
SDWACTL2	0016	0010	SDWAGR09	0060	003C	SDWANXTA	0013	000D
SDWAEPA	0096	0060	SDWAGR10	0064	0040	SDWANXTP	0021	0015
SDWAFIOB	0004	0004	SDWAGR11	0068	0044	SDWAPARM	0000	0000
SDWAGRSV	0024	0018	SDWAGR12	0072	0048	SDWAPMKA	0012	000C
SDWAGR00	0024	0018	SDWAGR13	0076	004C	SDWAPMKP	0020	0014
SDWAGR01	0028	001C	SDWAGR14	0080	0050	SDWARBAD	0088	0058
SDWAGR02	0032	0020	SDWAGR15	0084	0054			

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SDWACMKA	CHANNEL INTERRUPT MASKS	SDWAIOA	X'FE'	I/O INTERRUPTS (ALL ZEROS OR ALL ONES)
		SDWAEXTA	X'01'	EXTERNAL INTERRUPT
SDWACMKP	CHANNEL INTERRUPT MASKS	SDWAIOP	X'FE'	I/O INTERRUPTS (ALL ZEROS OR ALL ONES)
		SDWAEXTP	X'01'	EXTERNAL INTERRUPT
SDWACMPF	FLAG BITS IN COMPLETION CODE	SDWAREQ	X'80'	ON, DUMP TO BE GIVEN
		SDWASTEP	X'40'	ON, JOBSTEP TO BE TERMINATED
		SDWASTCC	X'10'	COMPLETION CODE HAS BEEN STORED
SDWAMWPA	PSW KEY AND 'M-W-P'	SDWAKEYA	X'F0'	PSW KEY IN 1st FOUR BITS
		SDWAMCKA	X'04'	MACHINE CHECK INTERRUPT
		SDWAWATA	X'02'	WAIT STATE
		SDWASPVA	X'01'	SUPERVISOR/PROBLEM-PROGRAM MODE
SDWAMWPP	PSW KEY AND 'M-W-P'	SDWAKEYP	X'F0'	PSW KEY
		SDWAMCKP	X'04'	MACHINE CHECK INTERRUPT
		SDWAWATP	X'02'	WAIT STATE

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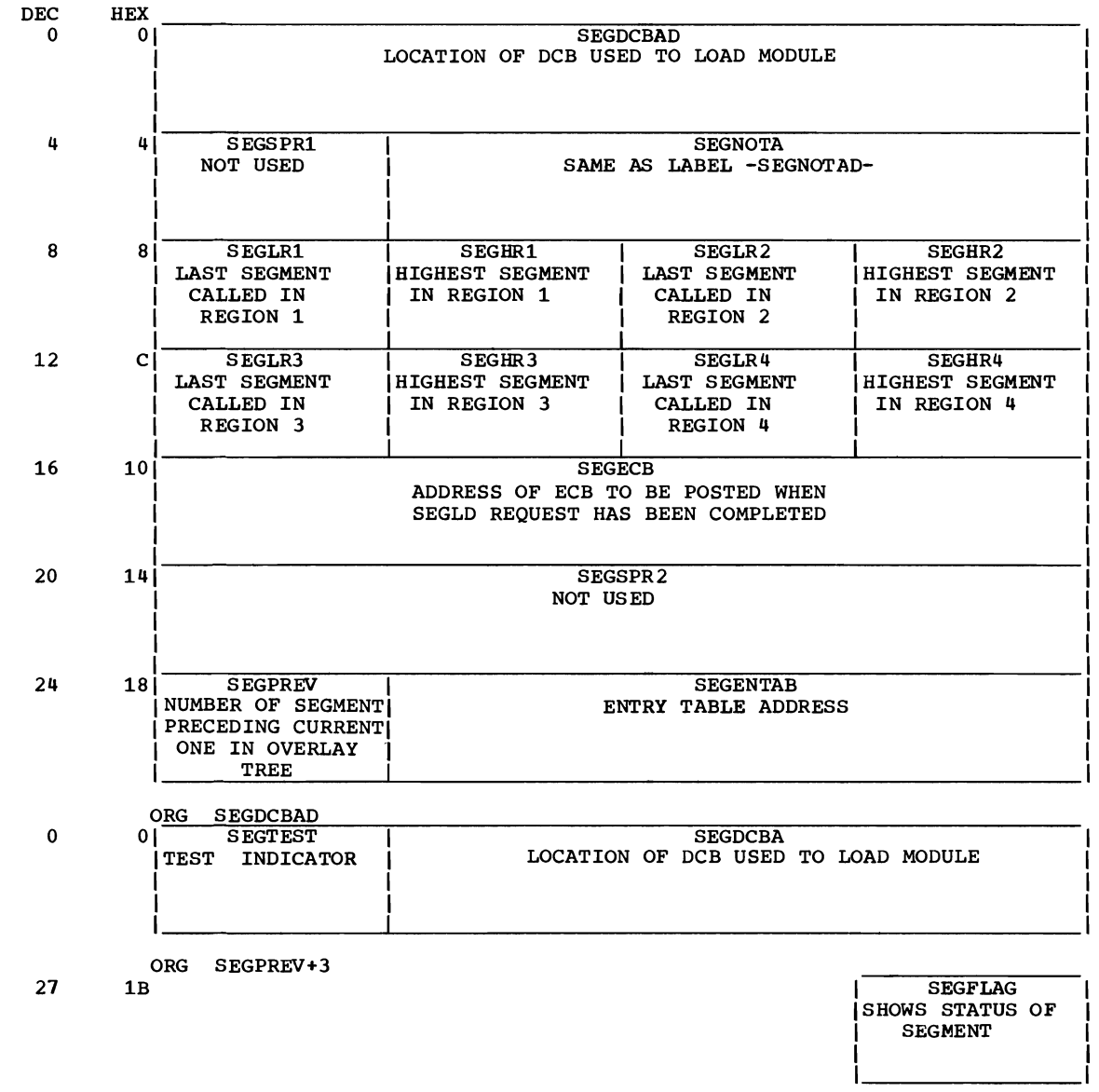
FLAG	CONTAINS	MASK	VALUE	MEANS
		SDWASPVP	X'01'	SUPERVISOR/PROBLEM-PROGRAM MODE
SDWAPMKA	INSTRUCTION LENGTH CODE, CONDITION CODE, PROGRAM MASKS	SDWAILA	X'C0'	INSTRUCTION LENGTH CODE
		SDWACCA	X'30'	LAST CONDITION CODE
		SDWAFPA	X'08'	FIXED-POINT OVERFLOW
		SDWADOA	X'04'	DECIMAL OVERFLOW
		SDWAEUA	X'02'	EXPONENT UNDERFLOW
		SDWASGA	X'01'	SIGNIFICANCE
SDWAPMKP	INSTRUCTION LENGTH CODE, CONDITION CODE, PROGRAM MASKS	SDWAILP	X'C0'	INSTRUCTION LENGTH CODE
		SDWACCP	X'30'	LAST CONDITION CODE
		SDWAFPP	X'08'	FIXED-POINT OVERFLOW
		SDWADOP	X'04'	DECIMAL OVERFLOW
		SDWAEUP	X'02'	EXPONENT UNDERFLOW
		SDWASGP	X'01'	SIGNIFICANCE

SEGTAB (Overlay Segment Table)

Total size: 28 bytes
Created by: Linkage editor
Purpose: The SEGTAB is used to keep track of the relationship of segments in an overlay module, and to determine which segments are in storage or being loaded.

STORAGE MAP OF SEGTAB



DISPLACEMENT LIST OF FIELDS IN SEGTAB

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SEGTEST	0009	0009	SEGHR1	0016	0010	SEGECB
0000	0000	SEGDCBAD	0010	000A	SEGLR2	0020	0014	SEGSPR2
0001	0001	SEGDCBA	0011	000B	SEGHR2	0024	0018	SEGPREV
0004	0004	SEGSPR1	0012	000C	SEGLR3	0025	0019	SEGENTAB
0004	0004	SEGNOTAD	0013	000D	SEGHR3	0027	001B	SEGFLAG
0005	0005	SEGNOTA	0014	000E	SEGLR4			
0008	0008	SEGLR1	0015	000F	SEGHR4			

ALPHABETICAL LIST OF FIELDS IN SEGTAB

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SEGDCBA	0001	0001	SEGHR3	0013	000D	SEGNOTAD	0004	0004
SEGDCBAD	0000	0000	SEGHR4	0015	000F	SEGPREV	0024	0018
SEGECB	0016	0010	SEGLR1	0008	0008	SEGSPR1	0004	0004
SEGENTAB	0025	0019	SEGLR2	0010	000A	SEGSPR2	0020	0014
SEGFLAG	0027	001B	SEGLR3	0012	000C	SEGTEST	0000	0000
SEGHR1	0009	0009	SEGLR4	0014	000E			
SEGHR2	0011	000B	SEGNOTA	0005	0005			

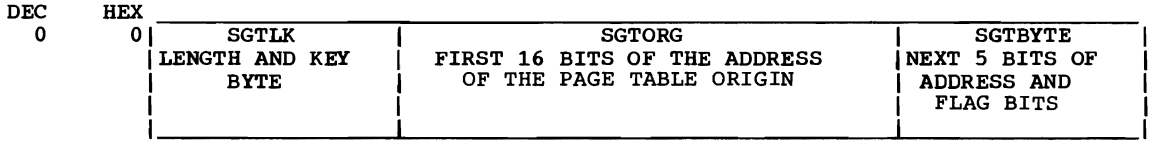
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SEGFLAG	SHOWS STATUS OF SEGMENT	SEGIN	X'00'	SEGMENT IS IN MAIN STORAGE
		SEGSCHED	X'01'	SEG IS SCHEDULED TO BE LOADED
		SEGNOENT	X'02'	SEGMENT IS IN STORAGE BUT
		SEGNOTIN	X'03'	SEGMENT IS NOT IN MAIN STORAGE
SEGTEST	TEST- INDICATOR	SEGTYES	X'40'	OVERLAY PGM IS IN -TEST- MODE
		SEGTNO	X'00'	OVLY PGM IS NOT IN -TEST- MODE

STE(SGTE) (Segment Table Entry)

Total size: 4 bytes
Created by: NIP
Purpose: Maintains the length, origin, and availability indicators for a Page Table (PGT) and used to guarantee segment protection. There are two STEs: one for Supervisor, V=R, and key-0 tasks; the other for any other tasks in the system.

STORAGE MAP OF STE



DISPLACEMENT LIST OF FIELDS IN STE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	SGTLK	0001	0001	SGTPTO	0004	0004	SGTLEN	(EQU)
0001	0001	SGTORG	0003	0003	SGTBYTE	0004	0004	SGTEND	

ALPHABETICAL LIST OF FIELDS IN STE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
SGTBYTE	0003	0003	SGTLEN	0004	0004	(EQU)	SGTORG	0001	0001
SGTEND	0004	0004	SGTLK	0000	0000		SGTPTO	0001	0001

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SGTBYTE	NEXT 5 BITS OF ADDRESS AND FLAG BITS	SGTEAC	X'06'	EXTERNAL ACCESS CODE
		SGTPAM	X'01'	SEGMENT IS INVALID
SGTLK	LENGTH AND KEY BYTE	SGTPTL	X'F0'	PAGE TABLE LENGTH
		SGTKEY	X'0F'	SEGMENT PROTECTION KEY

SQ (Slot Queue)

Total size: 16 bytes
Created by: NIP at system initialization
Purpose: A slot queue is built for each device; the number of slot queues depends on the device type. The slot queue contains a list of external storage pages available for paging.

STORAGE MAP OF SQ

DEC	HEX		
0	0	SQCHPGNO COUNT OF CHANNEL PROGRAMS ON THIS QUEUE	SQSEQSQA ADDRESS OF NEXT SEQUENTIAL SLOT QUEUE, WHEN THIS IS THE LAST SLOT IN THE GROUP
4	4	SQSECNO FOR A SET SECTOR DEVICE, SECTOR	SQSECSQA ADDRESS OF NEXT SECONDARY SLOT QUEUE
8	8	SQRECNO HH DELTA IN 4 HIGH-ORDER BITS	SQ1CHPGA ADDRESS OF FIRST CHANNEL PROGRAM ON SLOT QUEUE
12	C	SQINDX INDEX USED TO ARRIVE AT THE ADDRESS OF THIS SLOT QUEUE	SQLCHPGA ADDRESS OF LAST CHANNEL PROGRAM ON SLOT QUEUE

DISPLACEMENT LIST OF FIELDS IN SQ

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	SQCHPGNO		0005	0005	SQSECSQA		0012	000C	SQINDX	
0000	0000	SQSEQSQ		0008	0008	SQHHDEL	(EQU)	0012	000C	SQLCHPG	
0001	0001	SQSEQSQA		0008	0008	SQRECNO		0013	000D	SQLCHPGA	
0004	0004	SQSECNO		0008	0008	SQ1CHPG		0016	0010	SQLEN	(EQU)
0004	0004	SQSECSQ		0009	0009	SQ1CHPGA		0016	0010	SQEND	

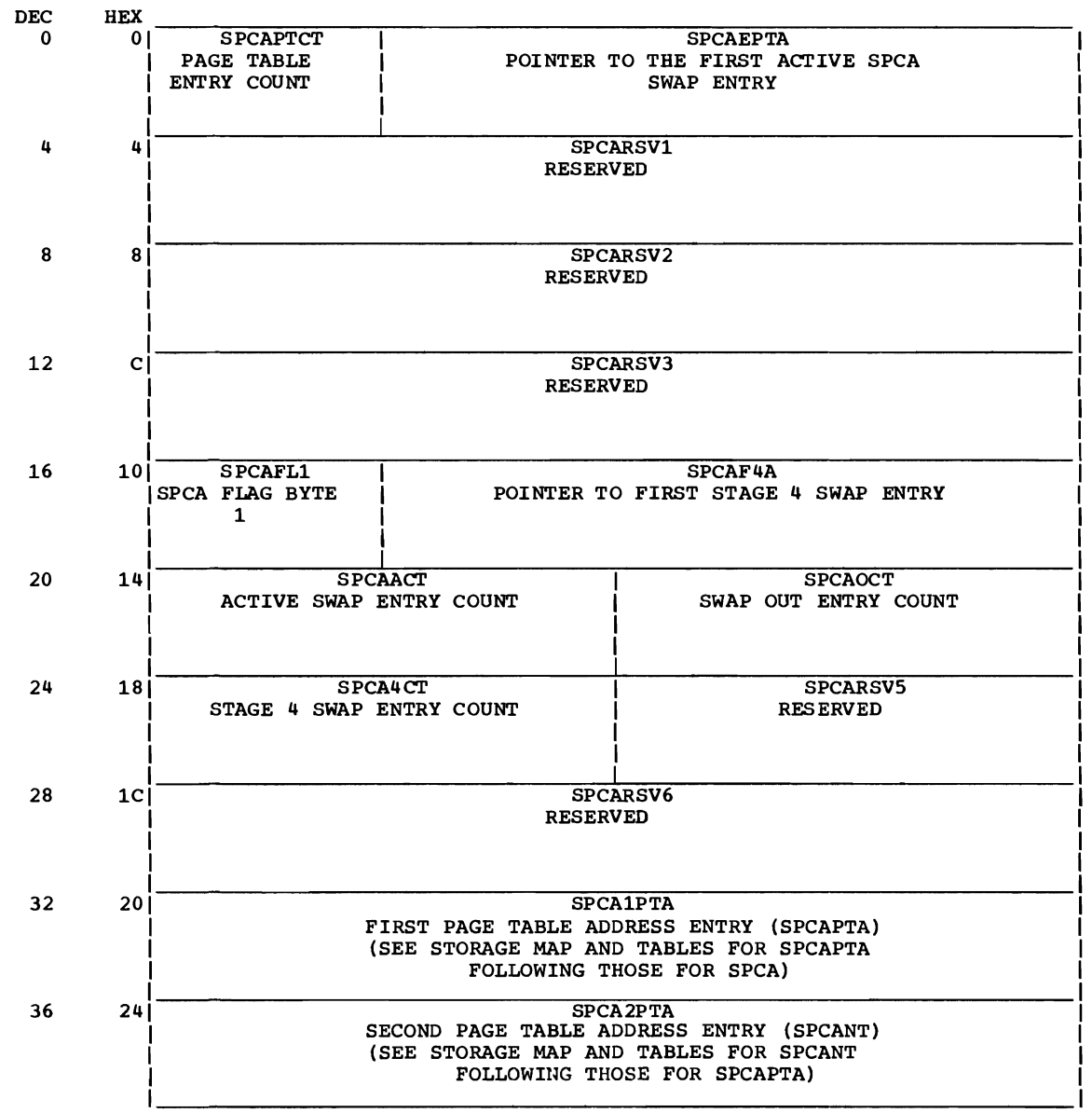
ALPHABETICAL LIST OF FIELDS IN SQ

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX
SQCHPGNO	0000	0000		SQLCHPGA	0013	000D		SQSECSQA	0005	0005
SQEND	0016	0010		SQLEN	0016	0010	(EQU)	SQSEQSQ	0000	0000
SQHHDEL	0008	0008	(EQU)	SQRECNO	0008	0008		SQSEQSQA	0001	0001
SQINDX	0012	000C		SQSECNO	0004	0004		SQ1CHPG	0008	0008
SQLCHPG	0012	000C		SQSECSQ	0004	0004		SQ1CHPGA	0009	0009

SPCA (Swap Communications Area)

Total size: Variable = 32 + (number of segments in region including LSQA) x 68 bytes
Created by: Swap-Out Logon Image Processor
Purpose: The SPCA contains information necessary to effect a swap-out and complete a swap-in. It also contains a work area large enough for the Swap-Out routine to build a sorted list of pages to be swapped-in at a later time. The SPCA resides in each user's LSQA. It is pointed to by each SPCT.

STORAGE MAP OF SPCA



DISPLACEMENT LIST OF FIELDS IN SPCA

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SPCAPTCT	0016	0010	SPCAFL1	0026	001A	SPCARSV5
0000	0000	SPCAEPT	0016	0010	SPCAF4	0028	001C	SPCARSV6
0001	0001	SPCAEPTA	0017	0011	SPCAF4A	0032	0020	SPCA1PTA
0004	0004	SPCARSV1	0020	0014	SPCAACT	0032	0020	SPCACLEN (EQU)
0008	0008	SPCARSV2	0022	0016	SPCAOCT	0036	0024	SPCA2PTA
0012	000C	SPCARSV3	0024	0018	SPCA4CT			

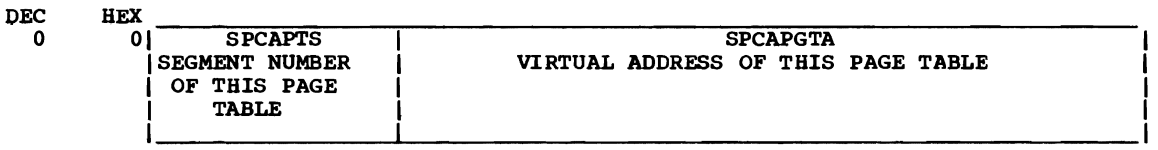
ALPHABETICAL LIST OF FIELDS IN SPCA

FIELD	DEC	HEX		FIELD	DEC	HEX	FIELD	DEC	HEX
SPCAACT	0020	0014		SPCAF4A	0017	0011	SPCARSV5	0026	001A
SPCACLEN	0032	0020	(EQU)	SPCAOCT	0022	0016	SPCARSV6	0028	001C
SPCAEPT	0000	0000		SPCAPTCT	0000	0000	SPCA1PTA	0032	0020
SPCAEPTA	0001	0001		SPCARSV1	0004	0004	SPCA2PTA	0036	0024
SPCAFL1	0016	0010		SPCARSV2	0008	0008	SPCA4CT	0024	0018
SPCAF4	0016	0010		SPCARSV3	0012	000C			

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SPCAFL1	SPCA FLAG BYTE 1	SPCASWA	X'80'	WHEN 1, SWA SEGMENT EXISTS FOR THIS REGION

STORAGE MAP OF SPCAPTA



DISPLACEMENT LIST OF FIELDS IN SPCAPTA

DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SPCAPTS	0001	0001	SPCAPGTA

ALPHABETICAL LIST OF FIELDS IN SPCAPTA

FIELD	DEC	HEX	FIELD	DEC	HEX
SPCAPGTA	0001	0001	SPCAPTS	0000	0000

STORAGE MAP OF SPCANT

DEC	HEX				
0	0	SPCANTV1 BYTE 0	SPCANTFL BYTE 1 - LAST 4 BITS OF VBN AND FLAGS FOR THIS SWAP ENTRY	SPCANTPT NUMBER OF THE SPCA PAGE TABLE ADDRESS ENTRY CONTAINING PAGE TABLE RELATING TO THIS SWAP ENTRY	SPCANTXP ADDITIVE OFFSET WHICH WHEN ADDED TO PGTE ADDRESS WILL FORM XPTE ADDRESS

DISPLACEMENT LIST OF FIELDS IN SPCANT

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SPCANTV1	0001	0001	SPCANTFL	0004	0004	SPCANTND
0000	0000	SPCANTVM	0002	0002	SPCANTPT			
0000	0000	SPCANTBL	0003	0003	SPCANTXP			

ALPHABETICAL LIST OF FIELDS IN SPCANT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SPCANTBL	0000	0000	SPCANTPT	0002	0002	SPCANTXP	0003	0003
SPCANTFL	0001	0001	SPCANTVM	0000	0000			
SPCANTND	0004	0004	SPCANTV1	0000	0000			

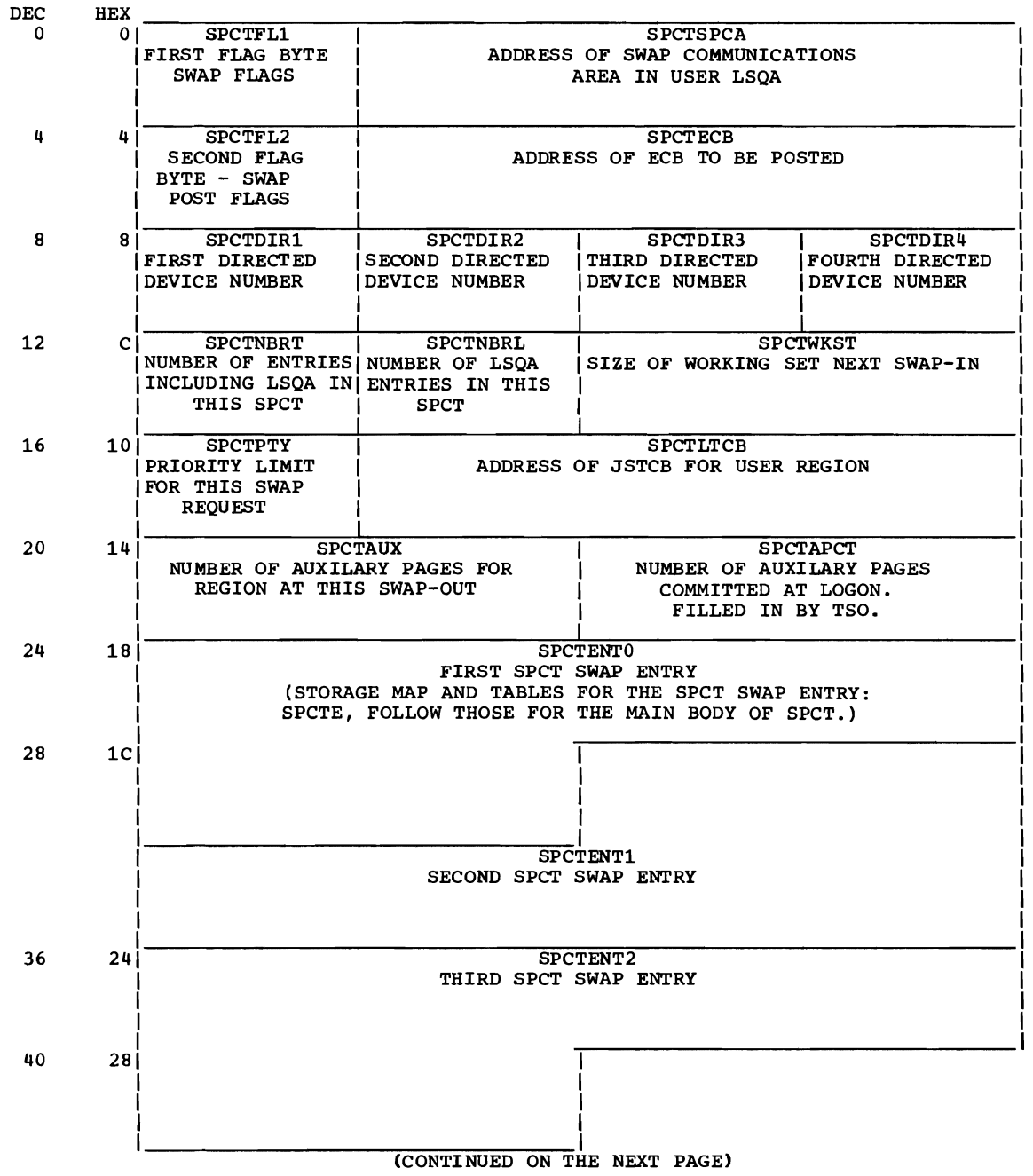
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SPCANTFL	BYTE 1 - LAST 4 BITS OF VBN AND FLAGS FOR THIS SWAP ENTRY	SPCANTV2	X'F0'	LAST 4 BITS OF VBN
		SPCANTNG	X'08'	WHEN 1 = IN-ONLY ENTRY
		SPCANTSP	X'04'	WHEN 1 = ENTRY REPRESENTED IN SPCT

SPCT (Swap Control Table)

Total size: 126 bytes
Created by: Swap-Out Logon Image Processor, Swap-Out Processor, Swap-In Processor
Purpose: Used by the issuer of a Block Page SVC instruction to initiate a region swap. It is used by the Swap-Out Logon Image Processor, the Swap-Out Processor and the Swap-In Processor for holding user-related information. The SPCT also indicates the status of the completion of a swap.

STORAGE MAP OF SPCT



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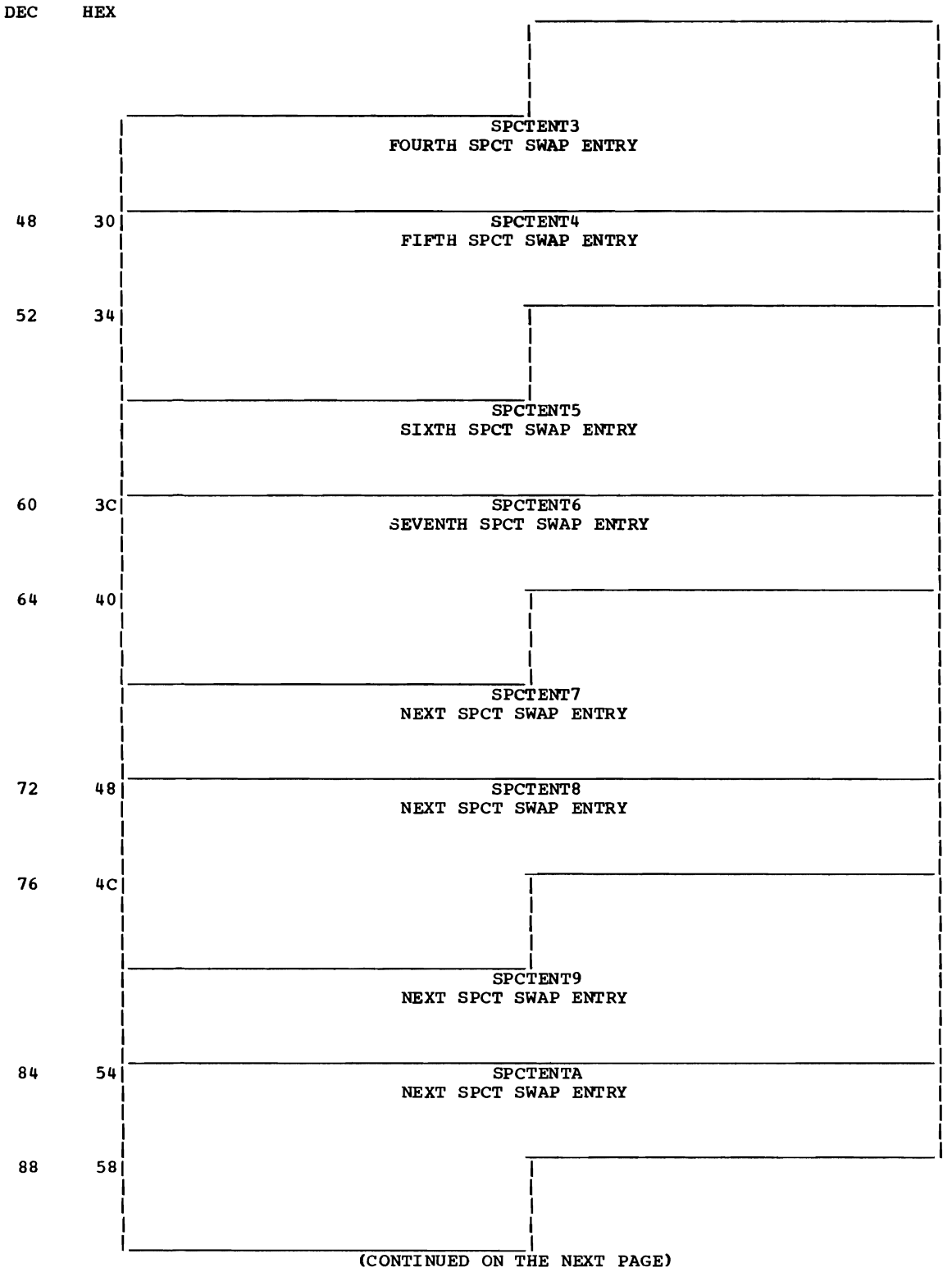

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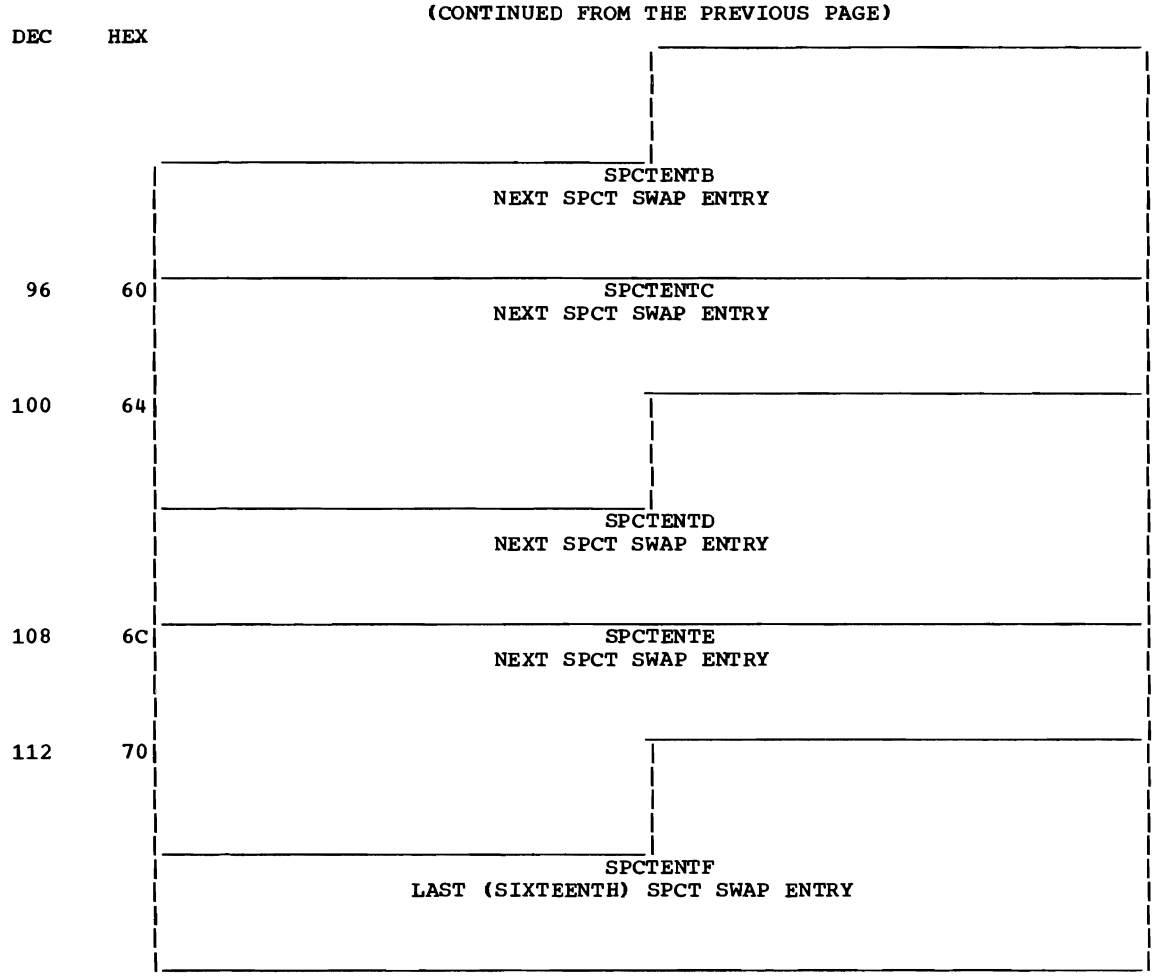


DISPLACEMENT LIST OF FIELDS IN SPCT

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	SPCTFL1	0014	000E	SPCTWKST	0066	0042	SPCTENT7	
0000	0000	SPCTSPCF	0016	0010	SPCTPTY	0072	0048	SPCTENT8	
0001	0001	SPCTSPCA	0016	0010	SPCTLTCF	0078	004E	SPCTENT9	
0004	0004	SPCTFL2	0017	0011	SPCTLTCB	0084	0054	SPCTENTA	
0004	0004	SPCTECBF	0020	0014	SPCTAUX	0090	005A	SPCTENTB	
0005	0005	SPCTECB	0022	0016	SPCTAPCT	0096	0060	SPCTENTC	
0008	0008	SPCTDIR1	0024	0018	SPCTENT0	0102	0066	SPCTENTD	
0008	0008	SPCTDIRS	0030	001E	SPCTENT1	0108	006C	SPCTENTE	
0009	0009	SPCTDIR2	0036	0024	SPCTENT2	0114	0072	SPCTENTF	
0010	000A	SPCTDIR3	0042	002A	SPCTENT3	0120	0078	SPCTLEN	(EQU)
0011	000B	SPCTDIR4	0048	0030	SPCTENT4	0120	0078	SPCTEND	
0012	000C	SPCTNBRT	0054	0036	SPCTENT5				
0013	000D	SPCTNBRL	0060	003C	SPCTENT6				

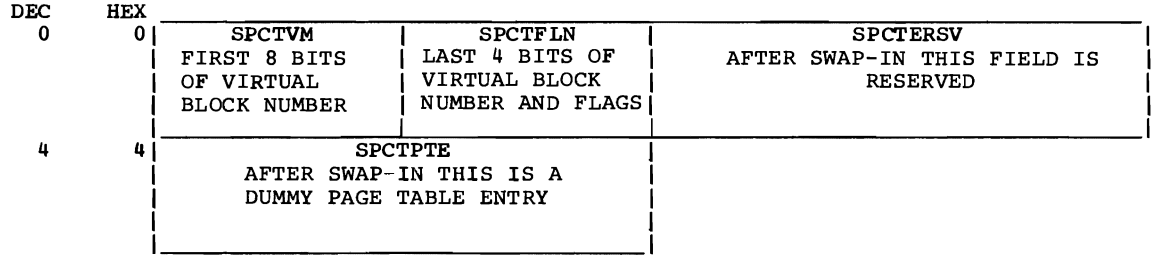
ALPHABETICAL LIST OF FIELDS IN SPCT

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
SPCTAPCT	0022	0016	SPCTENTD	0102	0066	SPCTFL1	0000	0000	
SPCTAUX	0020	0014	SPCTENTE	0108	006C	SPCTFL2	0004	0004	
SPCTDIRS	0008	0008	SPCTENTF	0114	0072	SPCTLEN	0120	0078	(EQU)
SPCTDIR1	0008	0008	SPCTENT0	0024	0018	SPCTLTCB	0017	0011	
SPCTDIR2	0009	0009	SPCTENT1	0030	001E	SPCTLTCF	0016	0010	
SPCTDIR3	0010	000A	SPCTENT2	0036	0024	SPCTNBRL	0013	000D	
SPCTDIR4	0011	000B	SPCTENT3	0042	002A	SPCTNBRT	0012	000C	
SPCTECB	0005	0005	SPCTENT4	0048	0030	SPCTPTY	0016	0010	
SPCTECBF	0004	0004	SPCTENT5	0054	0036	SPCTSPCA	0001	0001	
SPCTEND	0120	0078	SPCTENT6	0060	003C	SPCTSPCF	0000	0000	
SPCTENTA	0084	0054	SPCTENT7	0066	0042	SPCTWKST	0014	000E	
SPCTENTB	0090	005A	SPCTENT8	0072	0048				
SPCTENTC	0096	0060	SPCTENT9	0078	004E				

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SPCTFL1	FIRST FLAG BYTE	SPCTSISO	X'80'	WHEN 0 = SWAP IN REQUEST,
		SPCT1ST	X'40'	WHEN 1 = LSQA-IN ONLY
		SPCTLI	X'20'	WHEN 1 = LOGON IMAGE FUNCTION REQUESTED
		SPCTLERR	X'10'	WHEN 1 = ERROR HAS OCCURRED ON LSQA PAGE OF SWAP-IN
		SPCTERR	X'08'	WHEN 1 = ERROR HAS OCCURRED ON NON-LSQA PAGE OF SWAP-IN
		SPCTFXH	X'04'	WHEN 1 = FIX THRESHOLD HAS BEEN EXCEEDED
		SPCTOERR	X'02'	WHEN 1 = ERROR HAS OCCURRED DURING SWAP-OUT
		SPCTTHER	X'01'	WHEN 1 = AUXILIARY THRESHOLD HAS BEEN EXCEEDED DURING SWAP-OUT
SPCTFL2	SECOND FLAG BYTE - SWAP POST FLAGS	SPCT1CMP	X'80'	WHEN 1 = STAGE 1 SWAP-IN COMPLETE
		SPCT3CMP	X'40'	WHEN 1 = STAGE 3 SWAP-IN COMPLETE
		SPCT4CMP	X'20'	WHEN 1 = STAGE 4 SWAP-IN COMPLETE
		SPCTSC3	X'10'	WHEN 1 = REGION READY FOR RESTORE
		SPCTSC4	X'08'	WHEN 1 = SWAP-IN COMPLETE, REGION MAY BE SWAPPED OUT
		SPCTOUT	X'04'	WHEN 1 = SWAP-OUT COMPLETE, REGION MAY BE SWAPPED OUT
		SPCTACT	X'02'	WHEN 1 = TSO ACTION REQUIRED (SET WHEN SPCTSC3, SPCTSC4 OR SPCTOUT IS SET)

STORAGE MAP OF SPCTE



DISPLACEMENT LIST OF FIELDS IN SPCTE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SPCTVM	0002	0002	SPCTERSV	0006	0006	SPCTELEN (EQU)
0000	0000	SPCT2B	0002	0002	SPCTXPT	0006	0006	SPCTEEND
0001	0001	SPCTFLN	0004	0004	SPCTPTE			

ALPHABETICAL LIST OF FIELDS IN SPCTE

FIELD	DEC	HEX		FIELD	DEC	HEX	FIELD	DEC	HEX
SPCTEEND	0006	0006		SPCTFLN	0001	0001	SPCTXPT	0002	0002
SPCTELEN	0006	0006	(EQU)	SPCTPTE	0004	0004	SPCT2B	0000	0000
SPCTERSV	0002	0002		SPCTVM	0000	0000			

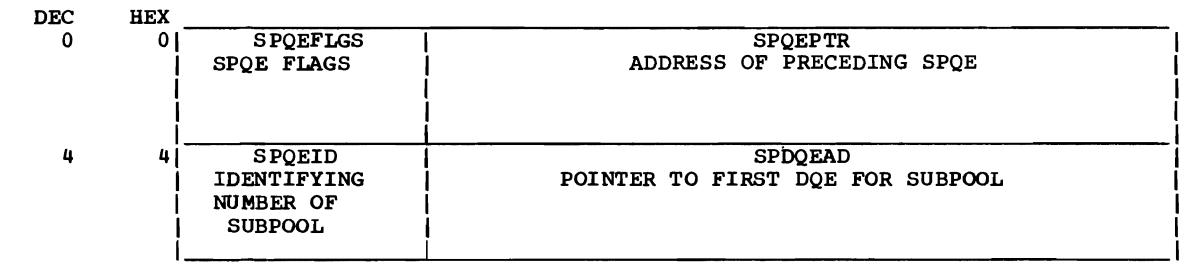
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SPCTFLN	LAST 4 BITS OF VIRTUAL BLOCK NUMBER AND FLAG BITS	SPCTVMB	X'F0'	REMAINDER OF VIRTUAL BLOCK NUMBER
		SPCTFLS	X'08'	WHEN 1 = LSQA PAGE ENTRY
		SPCTFWST	X'04'	WHEN 1 = WARM START PAGE

SPQE (Subpool Queue Element)

Total size: 8 bytes
Created by: IEAVGM00
Purpose: Describes areas of virtual storage assigned to a particular subpool. Used by GETMAIN and FREEMAIN routines to allocate and release space in a subpool.

STORAGE MAP OF SPQE



DISPLACEMENT LIST OF FIELDS IN SPQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	SPQEFLGS	0001	0001	SPQEPTR	0004	0004	SPDQEPTR
0000	0000	SPQEAD	0004	0004	SPQEID	0005	0005	SPDQEAD

ALPHABETICAL LIST OF FIELDS IN SPQE

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
SPDQEAD	0005	0005	SPQEAD	0000	0000	SPQEID	0004	0004
SPDQEPTR	0004	0004	SPQEFLGS	0000	0000	SPQEPTR	0001	0001

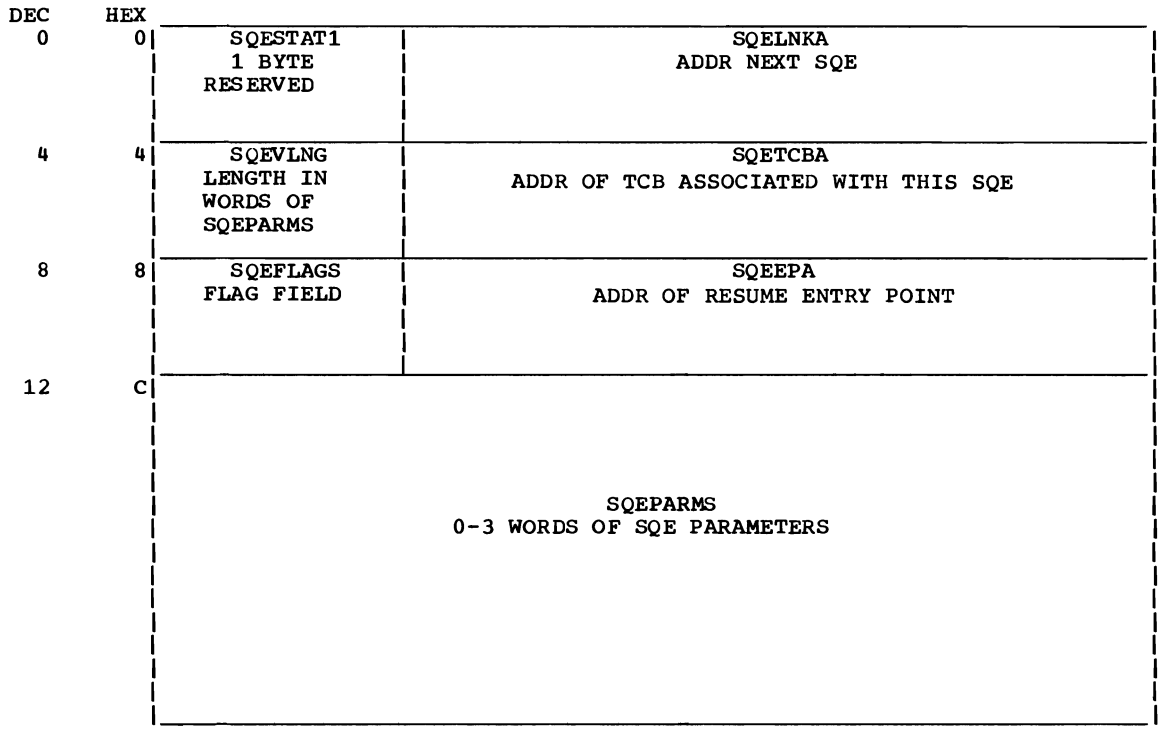
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SPQEFLGS	SPQE FLAGS	SPSHARE	X'80'	SUBPOOL IS SHARED
		LASTSPQE	X'40'	LAST SPQE ON CHAIN
		SPQEOWN	X'20'	SUBPOOL IS OWNED

SQE (Supervisor Queue Element)

Total size: 8 bytes
Created by: Supervisor routine
Purpose: Used to schedule an asynchronous supervisor service.

STORAGE MAP OF SQE



DISPLACEMENT LIST OF FIELDS IN SQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	SQESTAT1	0004	0004	SQETCB	0009	0009	SQEEPA	
0000	0000	SQELNK	0005	0005	SQETCBA	0012	000C	SQEPARMS	
0001	0001	SQELNKA	0008	0008	SQEFLAGS	0024	0018	SQELEN	(EQU)
0004	0004	SQEVLNG	0008	0008	SQEEP	0024	0018	SQEEND	

ALPHABETICAL LIST OF FIELDS IN SQE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
SQEEND	0024	0018	SQELEN	0024	0018	(EQU)	SQESTAT1	0000	0000
SQEEP	0008	0008	SQELNK	0000	0000		SQETCB	0004	0004
SQEEPA	0009	0009	SQELNKA	0001	0001		SQETCBA	0005	0005
SQEFLAGS	0008	0008	SQEPARMS	0012	000C		SQEVLNG	0004	0004

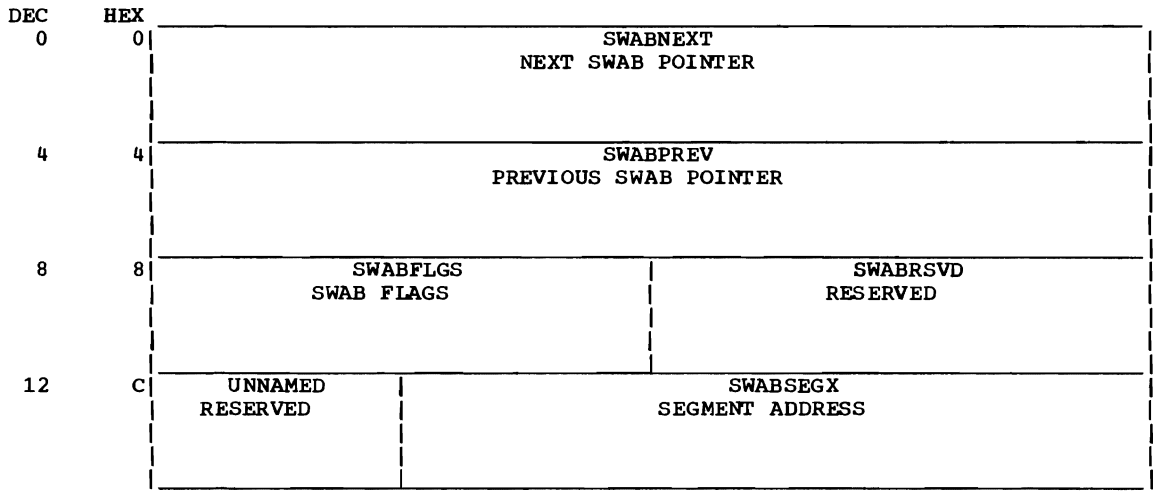
FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
SQEFLAGS	FLAG FIELD	SQEPURGE	X'80'	THIS SQE MUST NOT BE SCHEDULED
		SQEGTF	X'40'	GTF SCHEDULED THIS SQE
		SQEABTRM	X'20'	ABTERM SCHEDULED THIS SQE
SQEVLNG	LENGTH IN WORDS OF	SQEPALEN	X'03'	TEST LENGTH OF SQEPARMS

SWAB (System Work Area Block)

Total size: 16 bytes
Created by: IEAVGM00
Purpose: Describes one segment of pageable virtual storage that has been allocated to the system, for a work area. Used by the virtual storage supervisor to allocate and release space in the segment.

STORAGE MAP OF SWAB



DISPLACEMENT LIST OF FIELDS IN SWAB

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	SWABNEXT	0010	000A	SWABRSVD	0016	0010	SWABLEN	(EQU)
0004	0004	SWABPREV	0012	000C	SWABSEGT	0016	0010	SWABEND	
0008	0008	SWABFLGS	0013	000D	SWABSEGX				

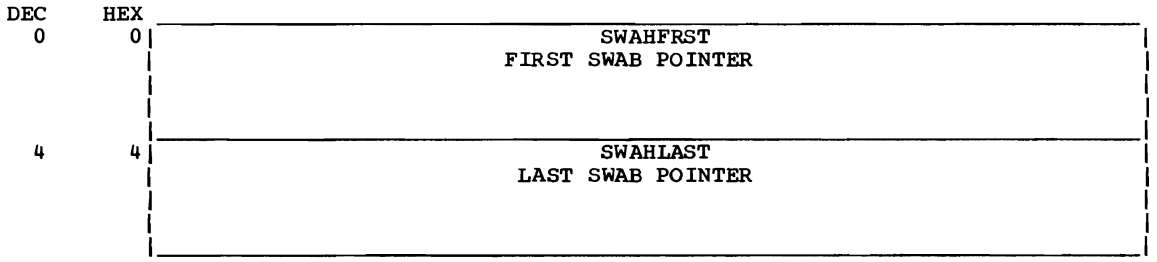
ALPHABETICAL LIST OF FIELDS IN SWAB

FIELD	DEC	HEX		FIELD	DEC	HEX	FIELD	DEC	HEX
SWABEND	0016	0010		SWABNEXT	0000	0000	SWABSEGT	0012	000C
SWABFLGS	0008	0008		SWABPREV	0004	0004	SWABSEGX	0013	000D
SWABLEN	0016	0010	(EQU)	SWABRSVD	0010	000A			

SWAH (System Work Area Header)

Total size: 8 bytes
Created by: IEAVGM00
Purpose: Heads a chain of SWABs (system work area blocks) that describe space within system work area segments.

STORAGE MAP OF SWAH



DISPLACEMENT LIST OF FIELDS IN SWAH

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	SWAHFRST	0004	0004	SWAHLAST	0008	0008	SWAHLEN	(EQU)
						0008	0008	SWAHEND	

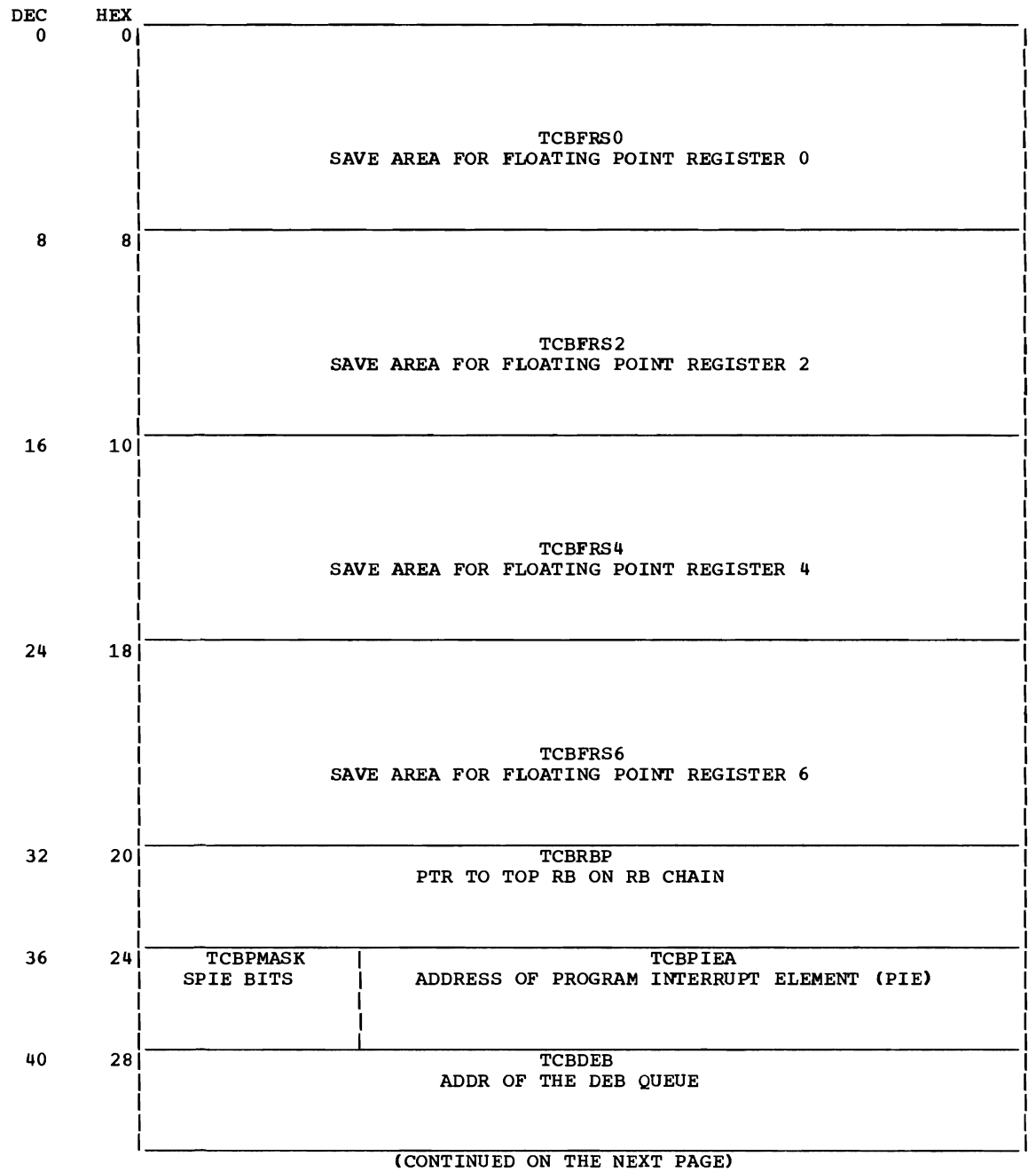
ALPHABETICAL LIST OF FIELDS IN SWAH

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
SWAHEND	0008	0008	SWAHFRST	0000	0000	SWAHLAST	0004	0004	
						SWAHLEN	0008	0008	(EQU)

TCB (Task Control Block)

Total size: 304 bytes
Created by: ATTACH routine
Purpose: Represents each task to be executed by the system. The TCB contains control and status information related to the task, and pointers to system resources assigned to execute the task. The TCB is normally referenced by assuming its origin as displacement X'20', so that all preceding TCB fields are viewed as having negative displacements.

STORAGE MAP OF TCB



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DEC	HEX				
44	2C	TCBTIO ADDR OF THE TASK I/O TABLE (TIOT)			
48	30	TCBCMPF COMPLETION FLAGS	TCBCMPC SYSTEM (FIRST 12 BITS) AND USER (SECOND 12) COMPLETION CODES		
52	34	TCBABF FLAG BYTE	TCBTRNB ADDR OF CONTROL CORE TABLE		
56	38	TCBRSV03 TCBNROC FIELD UNUSED	TCBMSSB ADDR OF THE BOUNDARY BOX VS1		
60	3C	TCBPKF STORAGE PROTECTION KEY	TCBFLGS1 FIRST TCB FLAG BYTE	TCBFLGS2 SECOND FLAG BYTE	TCBFLGS3 THIRD FLAG BYTE
64	40	TCBFLGS4 NONDISPATCH- ABILITY FLAGS	TCBFLGS5 NONDISPATCH- ABILITY FLAGS	TCBLMP TASK LIMIT PRIORITY	TCBDSP DISPATCHING PRIORITY
68	44	TCBLLS ADDR OF LAST LLE IN LOAD LIST			
72	48	TCBJLB ADDR OF JOBLIB DCB			
76	4C	TCBPURGE PURGE FLAGS	TCBJPQB ADDR OF LAST CDE FOR JPA CONTROL QUEUE		
80	50	TCBGRS0 SAVE AREA FOR GENERAL REGISTER 0			
84	54	TCBGRS1 SAVE AREA FOR GENERAL REGISTER 1			
88	58	TCBGRS2 SAVE AREA FOR GENERAL REGISTER 2			
92	5C	TCBGRS3 SAVE AREA FOR GENERAL REGISTER 3			

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DEC	HEX	
96	60	TCBGRS4 SAVE AREA FOR GENERAL REGISTER 4
100	64	TCBGRS5 SAVE AREA FOR GENERAL REGISTER 5
104	68	TCBGRS6 SAVE AREA FOR GENERAL REGISTER 6
108	6C	TCBGRS7 SAVE AREA FOR GENERAL REGISTER 7
112	70	TCBGRS8 SAVE AREA FOR GENERAL REGISTER 8
116	74	TCBGRS9 SAVE AREA FOR GENERAL REGISTER 9
120	78	TCBGRS10 SAVE AREA FOR GENERAL REGISTER 10
124	7C	TCBGRS11 SAVE AREA FOR GENERAL REGISTER 11
128	80	TCBGRS12 SAVE AREA FOR GENERAL REGISTER 12
132	84	TCBGRS13 SAVE AREA FOR GENERAL REGISTER 13
136	88	TCBGRS14 SAVE AREA FOR GENERAL REGISTER 14
140	8C	TCBGRS15 SAVE AREA FOR GENERAL REGISTER 15
144	90	TCBQEL ENQUEUE COUNT | TCBFSAB ADDR OF FIRST PROBLEM PROGRAM SAVE AREA

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DEC	HEX				
148	94	TCBTCB ADDR OF NEXT LOWER PRIRTITY TCB ON READY QUEUE			
152	98	TCBTME ADDRESS OF TIMER QUEUE ELEMENT			
156	9C	TCBRSV16 RESERVED	TCBJSTCA ADDRESS OF FIRST JOBSTEP TCB OR THIS TCB IF KEY 0		
160	A0	TCBNTC ADDR OF NEXT SAME LEVEL TCB (ZERO IF THIS IS LAST SUBTASK)			
164	A4	TCBOTC ADDR OF TCB ATTACHING TASK'S TCB			
168	A8	TCBLTC ADDR OF LAST SUBTASK TCB (ZERO IF THIS IS IT)			
172	AC	TCBIQE ADDR OF IQE FOR EXTR SCHEDULING			
176	B0	TCBECB ADDR OF ECB TO BE POSTED UPON TERMINATION			
180	B4	TCBTSFLG TIME SHARING FLAGS	TCBSTPCT NUMBER OF SETTASK STARTS WHICH MUST BE ISSUED BEFORE TASK IS MADE DISP	TCBTSLP LIMIT PRIORITY OF TS TASK	TCBTSDP DISPATCHING PRIORITY OF TS TASK
184	B8	TCBPQE POINTER TO DPQE MINUS 8 FOR THE JOB STEP			
188	BC	TCBAQE LIST ORIGIN OF AQE(S) FOR THIS TASK			
192	C0	TCBNSTAE STAE FLAGS	TCBSTABB ADDR OF STAE CONTROL BLOCK		
196	C4	TCBTCTGF FLAG BYTE FOR TIMING CONTROL TABEL	TCBTCTB ADDR OF TCT		

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DEC	HEX				
200	C8	TCBUSER FIELD AVAILABLE TO THE USER			
204	CC	TCBNDSP0 BYTE 0	TCBNDSP1 BYTE 1	TCBNDSP2 BYTE 2	TCBNDSP3 BYTE 3
208	D0	TCBMDIDS RESERVED FOR MODEL-DEPENDENT SUPPORT AND FOR IBM PROPRIETARY PROGRAMMING SUPPORT			
212	D4	TCBRECDE ABEND RECURSION BYTE	TCBJSCBB ADDR OF JOB STEP TASK CONTROL BLOCK		
216	D8	TCBDDEXC COUNT OF THE NUMBER OF TIMES A DYNAMIC DISPATCHING TASK'S TIME SLICE EXPIRES		TCBDDWTC COUNT OF THE NUMBER OF TIMES A DYNAMIC DISPATCHING TASK IS NOT INTERRUPTED BY TIME SLICE BETWEEN WAITS	
220	DC	TCBRSV29 RESERVED			
224	E0	TCBRSV30 RESERVED			
228	E4	TCBRSV32 RESERVED	TCBEXT1A ADDRESS OF COMMON TCB EXTENSION ICB311		
232	E8	TCBNDSP4 SECONDARY NONDISPATCH-ABILITY FLAGS	TCBNDSP5 SECONDARY NONDISPATCH-ABILITY FLAGS	TCBFLGS6 TASK-RELATED FLAGS	TCBFLGS7 TASK-RELATED FLAGS
236	EC	TCBDAR DAMAGE ASSESSMENT ROUTINE FLAGS	TCBRSV37 RESERVED	TCBRSV38 RESERVED	
240	F0	TCBRSV39 RESERVED	TCBEXT2A ADDRESS OF COMMON TCB EXTENSION ICB311		
244	F4	TCBRSV40 RESERVED	TCBSTI SEGMENT INDEX TO FIRST SEGMENT IN REGION.	TCBSCT COUNT FIELD INDICATING THE NO. OF SEGMENTS FOR THE TASK'S REGION	TCBLSQA SEGMENT INDEX TO FIRST LSQA SEGMENT FOR THE TASK'S REGION
248	F8	TCBTIRB ADDRESS OF TIRB FOR TASK			

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DEC	HEX				
252	FC	TCBBACK ADDRESS OF PREVIOUS TCB ON READY QUEUE. ZERO IN TOP TCB			
256	100	TCBLSQAP ADDRESS OF SPQE FOR LSQA			
260	104	TCBIOTIM TIME IN 16-MICROSECOND UNITS BETWEEN TIME THAT ORIGINAL TIME SLICE INTERVAL WAS ASSIGNED AND TIME THAT APG TASK WENT INTO A VOLUNTARY WAIT			
264	108	TCBTMSAV TIME IN 16-MICROSECOND UNITS REMAINING FROM ORIGINAL TIME SLICE INTERVAL WHEN APG TASK WAS LAST DISPATCHED			
268	10C	TCBABCUR ABEND RECURSION BYTE	TCBSYSCT COUNT FOR THE OUTSTANDING NO. OF "SYSTEM MUST COMPLETE" REQS.	TCBTID TASK ID NUMBER ICB374	TCBRSV41 RESERVED
272	110	TCBNQCT CNT OF RESOURCES UNAVAIL DUE TO ENQ OR RESERVE REQUESTED W/ ECB	TCBQECBA ADDR OF ECB TO BE POSTED WHEN TCBNQCT=0 ICB339		
276	114	TCBRSV42 RESERVED	TCBFOEA ADDRESS OF FIRST FIX OWNERSHIP ELEMENT (FOE) IN LIST FOR THIS TASK		
280	118	TCBSWA ADDRESS OF FIRST SYSTEM WORK AREA (SWA) CHAIN OF SWAs FOR THIS TASK			
284	11C	TCBRSV96 RESERVED			
288	120	TCBTFLG GTF FLAG BYTE ICB312	TCBGTFA ADDRESS OF TEMPORARY TRACE BUFFER ICB312		
292	124	TCBSTMCT CNT FOR OUTSTANDING NO. OF 'STEP MUST COMPLETE' REQS	TCBRCMP COMMON INTERFACE BETWEEN VS1 AND VS2 TO KEEP ABTERM COMPLETION CODE		
296	128	TCBRSV48 RESERVED			
300	12C	TCBRSV49 RESERVED			

DISPLACEMENT LIST OF FIELDS IN TCB

DEC	HEX	FIELD		DEC	HEX	FIELD		DEC	HEX	FIELD	
0000	0000	TCBFRS0		0128	0080	TNONDISP	(EQU)	0232	00E8	TCBBITS	
0000	0000	TCBFRS		0128	0080	TCBGRS12		0233	00E9	TCBNDSP5	
0008	0008	TCBFRS2		0132	0084	TCBGRS13		0234	00EA	TCBFLGS6	
0016	0010	TCBFRS4		0136	0088	TCBGRS14		0235	00EB	TCBFLGS7	
0024	0018	TCBFRS6		0140	008C	TCBGRS15		0236	00EC	TCBDAR	
0032	0020	TCBRBP		0144	0090	TCBQEL		0237	00ED	TCBRSV37	
0032	0020	TCB	(EQU)	0144	0090	TCBFSA		0238	00EE	TCBRSV38	
0036	0024	TCBPMASK		0145	0091	TCBFSAB		0240	00F0	TCBRSV39	
0036	0024	TCBPIE		0148	0094	TCBTCB		0240	00F0	TCBEXT2	
0037	0025	TCBPIEA		0152	0098	TCBTME		0241	00F1	TCBEXT2A	
0040	0028	TCBDEB		0156	009C	TCBRSV16		0244	00F4	TCBRSV40	
0044	002C	TCBTIO		0156	009C	TCBJSTCB		0244	00F4	TCBXTENT	
0048	0030	TCBCMPF		0157	009D	TCBJSTCA		0245	00F5	TCBSTI	
0048	0030	TCBCMP		0160	00A0	TCBNTC		0246	00F6	TCBSCT	
0049	0031	TCBCMPC		0164	00A4	TCBOTC		0247	00F7	TCBLSQA	
0052	0034	TCBABF		0168	00A8	TCBLTC		0248	00F8	TCBTIRB	
0052	0034	TCBTRN		0172	00AC	TCBIQE		0249	00F9	TCBDSSID	(EQU)
0053	0035	TCBTRNB		0176	00B0	TCBECB		0250	00FA	TCBJES	(EQU)
0056	0038	TCBRSV03		0180	00B4	TCBTSFLG		0251	00FB	TCBMASTR	(EQU)
0056	0038	TCBMSS		0181	00B5	TCBSTPCT		0252	00FC	TCBIORMS	(EQU)
0057	0039	TCBMSSB		0182	00B6	TCBTSLP		0252	00FC	TCBBACK	
0060	003C	TCBPKF		0183	00B7	TCBTSDP		0253	00FD	TCBCOMM	(EQU)
0061	003D	TCBFLGS1		0184	00B8	TCBPQE		0254	00FE	TCBSYERR	(EQU)
0061	003D	TCBFLGS		0188	00BC	TCBAQE		0255	00FF	TCBPAGID	(EQU)
0062	003E	TCBFLGS2		0192	00C0	TCBNSTAE		0256	0100	TCBLSQAP	
0063	003F	TCBFLGS3		0192	00C0	TCBSTAB		0260	0104	TCBIOTIM	
0064	0040	PNONDISP	(EQU)	0193	00C1	TCBSTABB		0264	0108	TCBTMSAV	
0064	0040	TCBFLGS4		0196	00C4	TCBTCTGF		0268	010C	TCBABCUR	
0065	0041	TCBFLGS5		0196	00C4	TCBTCT		0269	010D	TCBSYSCT	
0066	0042	TCBLMP		0197	00C5	TCBTCTB		0270	010E	TCBTID	
0067	0043	TCBDSP		0200	00C8	TCBUSER		0271	010F	TCBRSV41	
0068	0044	TCBLLS		0204	00CC	TCBNDSP0		0272	0110	TCBNQCT	
0072	0048	TCBJLB		0204	00CC	TCBNDSP		0272	0110	TCBQECB	
0076	004C	TCBPURGE		0204	00CC	TCBSCNDY		0273	0111	TCBQECBA	
0076	004C	TCBJPQ		0205	00CD	TCBNDSP1		0276	0114	TCBRSV42	
0077	004D	TCBJPQB		0206	00CE	TCBNDSP2		0276	0114	TCBFOE	
0080	0050	TCBGRS0		0207	00CF	TCBNDSP3		0277	0115	TCBFOEA	
0080	0050	TCBGRS		0208	00D0	TCBMDIDS		0280	0118	TCBSWA	
0084	0054	TCBGRS1		0212	00D4	TCBRECDE		0284	011C	TCBRSV96	
0088	0058	TCBGRS2		0212	00D4	TCBJSCB		0288	0120	TCBTFLG	
0092	005C	TCBGRS3		0213	00D5	TCBJSCBB		0288	0120	TCBGTF	
0096	0060	TCBGRS4		0216	00D8	TCBDDEXC		0288	0120	TCBXTNT2	(EQU)
0100	0064	TCBGRS5		0218	00DA	TCBDDWTC		0289	0121	TCBGTFA	
0104	0068	TCBGRS6		0220	00DC	TCBRSV29		0292	0124	TCBSTMCT	
0108	006C	TCBGRS7		0224	00E0	TCBRSV30		0293	0125	TCBRCMP	
0112	0070	TCBGRS8		0228	00E4	TCBRSV32		0296	0128	TCBRSV48	
0116	0074	TCBGRS9		0228	00E4	TCBEXT1		0300	012C	TCBRSV49	
0120	0078	TCBGRS10		0229	00E5	TCBEXT1A		0304	0130	TCBLEN	(EQU)
0124	007C	TCBGRS11		0232	00E8	TCBNDSP4					

ALPHABETICAL LIST OF FIELDS IN TCB

FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
PNONDISP	0064	0040	(EQU)	TCBDEB	0040	0028		TCBFLGS6	0234	00EA	
TCB	0032	0020	(EQU)	TCBDSP	0067	0043		TCBFLGS7	0235	00EB	
TCBABCUR	0268	010C		TCBDSSID	0249	00F9	(EQU)	TCBFOE	0276	0114	
TCBABF	0052	0034		TCBECB	0176	00B0		TCBFOEA	0277	0115	
TCBAQE	0188	00BC		TCBEXT1	0228	00E4		TCBFRS	0000	0000	
TCBBACK	0252	00FC		TCBEXT1A	0229	00E5		TCBFRS0	0000	0000	
TCBBITS	0232	00E8		TCBEXT2	0240	00F0		TCBFRS2	0008	0008	
TCBCMP	0048	0030		TCBEXT2A	0241	00F1		TCBFRS4	0016	0010	
TCBCMPC	0049	0031		TCBFLGS	0061	003D		TCBFRS6	0024	0018	
TCBCMPF	0048	0030		TCBFLGS1	0061	003D		TCBFSA	0144	0090	
TCBCOMM	0253	00FD	(EQU)	TCBFLGS2	0062	003E		TCBFSAB	0145	0091	
TCBDAR	0236	00EC		TCBFLGS3	0063	003F		TCBGRS	0080	0050	
TCBDDEXC	0216	00D8		TCBFLGS4	0064	0040		TCBGRS0	0080	0050	
TCBDDWTC	0218	00DA		TCBFLGS5	0065	0041		TCBGRS1	0084	0054	

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FIELD	DEC	HEX		FIELD	DEC	HEX		FIELD	DEC	HEX	
TCBGRS10	0120	0078		TCBMSS	0056	0038		TCBRSV41	0271	010F	
TCBGRS11	0124	007C		TCBMSSB	0057	0039		TCBRSV42	0276	0114	
TCBGRS12	0128	0080		TCBNDSP	0204	00CC		TCBRSV48	0296	0128	
TCBGRS13	0132	0084		TCBNDSP0	0204	00CC		TCBRSV49	0300	012C	
TCBGRS14	0136	0088		TCBNDSP1	0205	00CD		TCBRSV96	0284	011C	
TCBGRS15	0140	008C		TCBNDSP2	0206	00CE		TCBSCNDY	0204	00CC	
TCBGRS2	0088	0058		TCBNDSP3	0207	00CF		TCBSCT	0246	00F6	
TCBGRS3	0092	005C		TCBNDSP4	0232	00E8		TCBSTAB	0192	00C0	
TCBGRS4	0096	0060		TCBNDSP5	0233	00E9		TCBSTABB	0193	00C1	
TCBGRS5	0100	0064		TCBNQCT	0272	0110		TCBSTI	0245	00F5	
TCBGRS6	0104	0068		TCBNSTAE	0192	00C0		TCBSTMCT	0292	0124	
TCBGRS7	0108	006C		TCBNTC	0160	00A0		TCBSTPCT	0181	00B5	
TCBGRS8	0112	0070		TCBOTC	0164	00A4		TCBSWA	0280	0118	
TCBGRS9	0116	0074		TCBPAGID	0255	00FF	(EQU)	TCBSYERR	0254	00FE	(EQU)
TCBGTF	0288	0120		TCBPIE	0036	0024		TCBSYSCT	0269	010D	
TCBGTFA	0289	0121		TCBPIEA	0037	0025		TCBTCB	0148	0094	
TCBIORMS	0252	00FC	(EQU)	TCBPKF	0060	003C		TCBTCT	0196	00C4	
TCBIOTIM	0260	0104		TCBPMASK	0036	0024		TCBTCTB	0197	00C5	
TCBIQE	0172	00AC		TCBPQE	0184	00B8		TCBTCTGF	0196	00C4	
TCBJES	0250	00FA	(EQU)	TCBPURGE	0076	004C		TCBTFLG	0288	0120	
TCBJLB	0072	0048		TCBQECB	0272	0110		TCBTID	0270	010E	
TCBJPQ	0076	004C		TCBQECBA	0273	0111		TCBTIO	0044	002C	
TCBJPQB	0077	004D		TCBQEL	0144	0090		TCBTIRB	0248	00F8	
TCBJSCB	0212	00D4		TCBRBP	0032	0020		TCBTME	0152	0098	
TCBJSCBB	0213	00D5		TCBRCMP	0293	0125		TCBTMSAV	0264	0108	
TCBJSTCA	0157	009D		TCBRECDE	0212	00D4		TCBTRN	0052	0034	
TCBJSTCB	0156	009C		TCBRSV03	0056	0038		TCBTRNB	0053	0035	
TCBLEN	0304	0130	(EQU)	TCBRSV16	0156	009C		TCBTSDP	0183	00B7	
TCBLLS	0068	0044		TCBRSV29	0220	00DC		TCBTSFLG	0180	00B4	
TCBLMP	0066	0042		TCBRSV30	0224	00E0		TCBTSLP	0182	00B6	
TCBLSQA	0247	00F7		TCBRSV32	0228	00E4		TCBUSER	0200	00C8	
TCBLSQAP	0256	0100		TCBRSV37	0237	00ED		TCBXTENT	0244	00F4	
TCBLTC	0168	00A8		TCBRSV38	0238	00EE		TCBXTNT2	0288	0120	(EQU)
TCBMASTR	0251	00FB	(EQU)	TCBRSV39	0240	00F0		TNONDISP	0128	0080	(EQU)
TCBMDIDS	0208	00D0		TCBRSV40	0244	00F4					

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
PNONDISP	ALIAS	TCBRSTND	X'20'	TASK TEMPORARILY NONDISPATCHABLE -
		TCBRSPND	X'10'	TASK PERMANENTLY NONDISPATCHABLE -
		TCBDDRND	X'08'	TASK IS IN DEVICE ALLOCATION AND DYNAMIC DEVICE
		TCBTPSP	X'04'	DISPATCHING OF TCAM TASK MUST BE DELAYED
		TCBRSV21	X'02'	RESERVED
		TCBRSV22	X'01'	RESERVED
TCBABF	FLAG BYTE	TCBMOD91	X'80'	BOTH TESTRAN AND DECIMAL SIMULATOR ON A MOD 91
		TCBNOCHK	X'40'	SUPPRESS TAKING CHECKPOINTS FOR THIS STEP (JOB STEP TCB)
		TCBGRPH	X'20'	GRAPHICS FOREGROUND JOB OR GRAPHIC JOB PROCESSOR
		TCBRSV01	X'10'	RESERVED
		TCBTCPP	X'08'	TCAM POST-PENDING (RORI)
		TCBTCP	X'04'	TEST TASK - USED BY TEST SVC
		TCBOLTEP	X'02'	OLTEP FUNCTIONS REQUIRE CLEAN-UP BEFORE ABNORMAL TERMINATION CAN BE INVOKED
		TCBRSV02	X'01'	RESERVED
TCBCMPF	COMPLETION FLAGS	TCBCREQ	X'80'	A DUMP HAS BEEN REQUESTED

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(CONTINUED FROM THE PREVIOUS PAGE)

FLAG	CONTAINS	MASK	VALUE	MEANS
		TCBCSTEP	X'40'	A STEP ABEND HAS BEEN REQUESTED
		TCBCPP	X'20'	SECOND ABEND LOAD OVERLAID PP STORAGE
		TCBSTCC	X'10'	COMPLETION CODE IS NOT TO BE STORED IN TCBCMPC IF ABEND IS ENCOUNTERED
		TCBCDBL	X'08'	A DOUBLE ABEND HAS OCCURRED
		TCBCWTO	X'04'	DUMP MSG TO BE ISSUED TO OPR
		TCBCIND	X'02'	SCHEDULER TO PRINT INDICATIVE DUMP
		TCBCMSG	X'01'	ABEND MSG PROVIDED TO BE PRINTED BY ABDUMP
TCBDAR	DAMAGE ASSESSMENT ROUTINE FLAGS	TCBDARP	X'80'	PRIMARY DAR RECURSION - FAILURE IN WRITING A CORE IMAGE
		TCBDARS	X'40'	SECONDARY DAR RECURSION FAILED IN REINSTATING REGION OR PARTITION
		TCBDARD	X'20'	A DUMP HAS BEEN REQUESTED FOR A WRITER OR SCHEDULER ABEND-NO SYSABEND DO CARD
		TCBDARC	X'10'	RECURSION PERMITTED IN CLOSE-AFTER DAR COMPLETE (PCP)
		TCBDARMC	X'10'	DAR HAS BEEN ENTERED TO HANDLE A VALID RECURSION IN MUST-COMPLETE STATUS THRU ABEND
		TCBDARO	X'08'	SYSTEM ERROR TASK IS FAILING. DAR DUMP SHOULD NOT REQUEST ERP
		TCBDARWT	X'04'	WTO IN PROCESS FOR DAR
		TCBRSV36	X'02'	RESERVED
		TCBEXSVC	X'01'	SVC DUMP IS EXECUTING FOR THIS TASK
TCBFLGS1	FIRST TCB FLAG BYTE	TCBFA	X'80'	ABNORMAL TERMINATION IN PROGRESS
		TCBFE	X'40'	NORMAL TERMINATION IN PROGRESS
		TCBFERA	X'20'	ENTER ABEND ERASE ROUTINE WHEN IN CONTROL AGAIN
		TCBRSV04	X'10'	RESERVED
		TCBPDUMP	X'08'	PREVENT DUMP INDICATOR
		TCBFT	X'04'	TOP TASK IN TREE BEING ABTERMED
		TCBFS	X'02'	ABTERM DUMP COMPLETED
		TCBFX	X'01'	PROHIBIT ASYNCHRONOUS EXIT QUEUEING
TCBFLGS2	SECOND FLAG BYTE	TCBFOINP	X'80'	A VALUE OF 1 INDICATES THAT THE TASK IS ABENDING AND OPENING/CLOSING DATA SETS, OR PURGING ENQUEUED RESOURCES
		TCBFSTI	X'40'	SECOND JOB STEP INTERVAL HAS EXPIRED
		TCBRSV05	X'20'	RESERVED
		TCBFSMC	X'10'	TASK HAS ISSUED SYSTEM MUST=COMPLETE AND SET TASKS NONDISPATCHABLE
		TCBFJMC	X'08'	TASK HAS ISSUED STEP MUST=COMPLETE AND TURNED OFF ALL TASKS
		TCBFDSOP	X'04'	SYSABEND OPEN FOR JOBSTEP
		TCBFETXR	X'02'	ETXR TO BE SCHEDULED
		TCBFTS	X'01'	MEMBER OF TIME-SLICING GROUP
TCBFLGS3	THIRD FLAG BYTE	TCBFSM	X'80'	ALL PSW'S IN SUPERVISOR

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FLAG	CONTAINS	MASK	VALUE	MEANS
				STATE
		TCBADINP	X'40'	USED IN CONJUNCTION WITH TCBONDSP. FLAG INDICATING ABDUMP IN PROGRESS
		TCBABTRM	X'20'	ABTERM BIT TO PREVENT MULTIPLE ABENDS
		TCBABGM	X'10'	GETMAIN IS TO DEFAULT LSQA REQUESTS TO SOA
		TCBRSV06	X'08'	RESERVED
		TCBRSV07	X'04'	RESERVED
		TCBRSV08	X'02'	RESERVED
		TCBDWSTA	X'01'	THIS TASK WAS DETACHED WITH STAE=YES OPTION
TCBFLGS4	NONDISPATCHABILITY FLAGS	TCBNDUMP	X'80'	ABDUMP NONDISPATCHABILITY INDICATOR
		TCBSER	X'40'	SER1 NONDISPATCHABILITY INDICATOR
		TCBRQENA	X'20'	I/O RQE'S EXAUSTED
		TCBHNDSP	X'10'	TASK OF JOB STEP IS MOMENTARILY 'FROZEN' UNTIL RESOURCES ARE AVAILABLE
		TCBUXNDV	X'08'	TASK IS TEMPORARILY NONDISPATCHABLE BECAUSE
		TCBMPCVQ	X'04'	VARY OR QUIESCE IN MULTI-PROCESSING SYSTEM
		TCBMPCND	X'02'	M65 MULTIPROCESSING NONDISPATCHABILITY INDICATOR FOR ALL CPUs
		TCBONDSP	X'01'	TASK TERMINATING AND NONDISPATCHABLE BECAUSE AN OPEN FOR A DUMP DS OR AN ABEND CLOSE IS IN PROGRESS
TCBFLGS5	MORE NONDISPATCHABILITY FLAGS	TCBFC	X'80'	TASK TERMINATED
		TCBABWF	X'40'	ABNORMAL WAIT
		TCBUXNDF	X'40'	TASK IS TEMPORARILY NONDISPATCHABLE BECAUSE OPEN/CLOSE IN PROGRESS
		TCBPAGE	X'20'	TASK NONDISPATCHABLE DUE TO EXECESSIVE PAGING
		TCBANDSP	X'10'	TASK NONDISPATCHABLE TEMPORARILY BECAUSE ATTACHED WITH DISP=NO
		TCBSYS	X'08'	ANOTHER TASK IS IN SYSTEM MUST-COMPLETE STATUS
		TCBSTP	X'04'	ANOTHER TASK IN JS IS IN STEP MUST-COMPLETE STATUS
		TCBFCD1	X'02'	INITIATOR WAITING FOR REGION
		TCBPNDSP	X'01'	PRIMARY NONDISPATCHABILITY FLAG (TCBNDSP2 SET)
TCBFLGS6	TASK-RELATED FLAGS	TCBRV	X'80'	PARTITION IS FIXED. VIRTUAL ADDRESSES IN PARTITION=REAL
		TCBPIE17	X'40'	PAGE FAULT INTERRUPT IS TO BE PASSED TO THE TASK'S INTERRUPT EXIT-PICA IN EFFECT
		TCBCPU	X'20'	TASK IS CPU-BOUND MEMBER OF APG
		TCBSPVLK	X'10'	TASK SCHEDULED FOR ABTERM WHILE OWNING SUPERVISOR LOCK
		TCBOLSQA	X'08'	TASK OWNS SPQE FOR LSQA
		TCBMIGR	X'04'	REGION SELECTED FOR MIGRATION FROM PRIMARY PAGING DEVICE
		TCBAPG	X'02'	TASK IS IN APG
		TCBNTJS	X'01'	JOB STEP TASK BUT NOT HIGHEST IN FAILING TREE
TCBFLGS7	TASK-RELATED FLAGS	TCBGPECB	X'80'	TASK IS IN AN ECB WAIT FOR A GETPART
		TCBRSV33	X'40'	RESERVED
		TCBRSV34	X'20'	RESERVED
		TCBSTACK	X'10'	SET IN JOB STEP TCB TO INDICATE THAT A TASK IN JOB STEP IN

(CONTINUED ON THE NEXT PAGE)

(CONTINUED FROM THE PREVIOUS PAGE)

FLAG	CONTAINS	MASK	VALUE	MEANS
				SERIAL ABEND PROCESSING
		TCBRSV35	X'08'	RESERVED
		TCBRSTSK	X'04'	RESIDENT SYSTEM TASK
		TCBADMP	X'02'	ALL OTHER TASKS IN JOB STEP HAVE BEEN SET NONDISPATCHABLE BY ABDUMP
		TCBGTOFM	X'01'	GTF TRACING TEMPORARILY DISABLED
TCBNDSP1	BYTE 1	TCBDARTN	X'80'	TASK TEMPORARILY NONDISPATCHABLE -
		TNONDISP	X'80'	ALIAS
		TCBDARPN	X'40'	TASK PERMANENTLY NONDISPATCHABLE (DAR)
		PNONDISP	X'40'	ALIAS
		TCBRSTND	X'20'	TASK TEMPORARILY NONDISPATCHABLE (RMS/SER)
		TCBRSPND	X'10'	TASK PERMANENTLY NONDISPATCHABLE (RMS/SER)
		TCBDDRND	X'08'	TASK IN DEVICE ALLOCATION AND DDR HAS MADE IT NONDISPATCHABLE
		TCBTPSP	X'04'	DISPATCHING OF TCAM TASK MUST BE DELAYED
TCBNDSP2	BYTE 2	TCBABD	X'80'	SET BY ABDUMP -
		TCBSTPP	X'40'	TASK NDSP BECAUSE STOPPED BY SETTASK
		TCBNDSVC	X'20'	TASK NDSP BECAUSE SVC DUMP IS EXECUTING FOR OTHER TASK
		TCBNDTS	X'10'	TASK NDPS BECAUSE BEING SWAPPED OUT
		TCBIWAIT	X'08'	TASK NDSP DUE TO INPUT WAIT
		TCBOWAIT	X'04'	TASK NDSP DUE TO OUTPUT WAIT
		TCBDSS	X'02'	DSS HAS SET THE TASK NON-DISPATCHABLE
		TCBABE	X'01'	ABEND ENTERED FOR THIS TASK - SYSABEND DCB OPEN FOR OTHER TASK
TCBNDSP3	BYTE 3	TCBLJSND	X'80'	TASK IS ABENDING AND NONDISPATCHABLE BECAUSE IT HAS A JOB STEP SUBTASK
		TCBSTAND	X'40'	TASK HAS BEEN SET NONDISPATCHABLE WHILE ASIR SCHEDULES EXIT ROUTINE FOR OTHER TASK
		TCBRSV23	X'20'	RESERVED
		TCBRSV24	X'10'	RESERVED
		TCBRSV25	X'08'	RESERVED
		TCBRSV26	X'04'	RESERVED
		TCBRSV27	X'02'	RESERVED
		TCBRSV28	X'01'	RESERVED
TCBNDSP4	SECONDARY NONDISPATCHABILITY FLAGS COMMON TO	TCBRSV86	X'80'	RESERVED
		TCBRSV87	X'40'	RESERVED
		TCBRSV88	X'20'	RESERVED
		TCBRSV89	X'10'	RESERVED
		TCBRSV90	X'08'	RESERVED
		TCBRSV91	X'04'	RESERVED
		TCBRSV92	X'02'	RESERVED
		TCBRSV93	X'01'	RESERVED
TCBNDSP5	SECONDARY NONDISPATCHABILITY FLAGS UNIQUE TO	TCBRSV94	X'80'	RESERVED
		TCBRSV95	X'40'	RESERVED
		TCBRSV74	X'20'	RESERVED
		TCBRSV75	X'10'	RESERVED
		TCBRSV76	X'08'	RESERVED
		TCBRSV77	X'04'	RESERVED
		TCBRSV78	X'02'	RESERVED
		TCBRSV79	X'01'	RESERVED
TCBNSTAE	STAE FLAGS	TCBSTABE	X'80'	ABEND ENTERED BECAUSE OF ERROR IN STAE PROC
		TCBQUIES	X'40'	STAE INVOKED PURGE I/O ROUTINE WITH QUIESCE I/O
		TCB33E	X'20'	A 33E ABEND HAS OCCURRED FOR TASK
		TCBRSV19	X'10'	RESERVED
		TCBHALT	X'08'	PURGE I/O ROUTINE DID NOT SUCCESSFULLY QUIESCE I/O BUT I/O WAS HALTED
		TCBSYNCH	X'04'	SYNCH ISSUED BY ASIR TO

(CONTINUED ON THE NEXT PAGE)

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FLAG	CONTAINS	MASK	VALUE	MEANS
				SCHEDULE EXIT ROUTINE
		TCBNPURG	X'02'	VALID RETRY WITHOUT AN RB PURGE
		TCBSTCUR	X'01'	STAE RECURSION VALID
TCBPKF	STORAGE PROTECTION KEY	TCBFLAG	X'F0'	PROTECTION KEY
		TCBZERO	X'0F'	ZERO
TCBPMASK	SPIE BITS	TCBPM	X'0F'	PROGRAM MASK AT TIME OF SPIE INITIATION. MASK RESTORED AT SPIE NULLIFICATION
TCBPURGE	PURGE FLAGS	TCBJPQF	X'80'	JPQ PURGE FLAG
		TCBRSV09	X'40'	RESERVED
		TCBRSV10	X'20'	RESERVED
		TCBRSV11	X'10'	RESERVED
		TCBRSV12	X'08'	RESERVED
		TCBRSV13	X'04'	RESERVED
		TCBRSV14	X'02'	RESERVED
		TCBRSV15	X'01'	RESERVED
TCBRECDE	ABEND RECURSION BYTE	TCBREC	X'80'	VALID REENTRY TO ABEND INDICATED IF NONZERO
		TCBOPEN	X'01'	OPEN DUMP DATA SET
		TCBCLOSD	X'02'	CLOSE DIRECT SYSOUT ON TAPE ICB456
		TCBCLOSE	X'03'	CLOSE OPEN DATA SETS
		TCBCLOSF	X'04'	RESERVED
		TCBGREC	X'05'	GRAPHICS
		TCBADUMP	X'07'	ABDUMP
		TCBPTAXE	X'08'	PURGE TAXE
		TCBMESG	X'09'	MESSAGE RECURSION
		TCBDYNAM	X'0A'	DD-DYNAM TIOT CLEANUP
		TCBQTIP	X'0C'	PURGE TSO INTERPARTITION POSTS
		TCBTCAMP	X'0D'	PURGE TCAM INTERPARTITION POSTS
		TCBSAVCD	X'0F'	ASIR RECURSION. SAVE OLD COMP CODE
		TCBTYP1W	X'10'	TYPE 1 MESSAGE WRITE TO PROGRAMMER
		TCBNOSTA	X'30'	STAE/STAI NOT TO BE HONORED ICB456
		TCBSTRET	X'31'	RETURN FROM STEAL CORE
		TCBCONVR	X'32'	CONVERT TO STEP ABEND
		TCBDARET	X'33'	RETURN FROM DAR
		TCBTYP1R	X'34'	RETURN FROM TYPE 1 MESSAGE MODULE
		TCBNEWRB	X'35'	ABEND ISSUED SVC 13 TO XCTL TO A NON-ABEND
TCBTCTGF	FLAG BYTE FOR TIMING	TCBSMFGF	X'80'	IF ZERO, THE TCT CORE

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FLAG	CONTAINS	MASK	VALUE	MEANS
	CONTROL TABEL			TABLE IS NOT TO BE
		TCBRSV20	X'40'	RESERVED
		TCBRSV97	X'20'	RESERVED
		TCBRSV98	X'10'	RESERVED
		TCBRSV99	X'08'	RESERVED
		TCBRSV9A	X'04'	RESERVED
		TCBRSV9B	X'02'	RESERVED
		TCBRSV9C	X'01'	RESERVED
TCBTFLG	GTF FLAG BYTE	TCBASYNC	X'80'	GTF ASYNCHRONOUS GATHER RTNE IN CONTROL
		TCBERRTN	X'40'	GTF ASYNCHRONOUS GATHER ERROR ROUTINE IN CONTROL
		TCBDSPIT	X'20'	MCIH SHOULD UNCONDITIONALLY BRANCH TO THE DISPATCHER
		TCBRSV43	X'10'	RESERVED
		TCBRSV44	X'08'	RESERVED
		TCBRSV45	X'04'	RESERVED
		TCBRSV46	X'02'	RESERVED
		TCBRSV47	X'01'	RESERVED
TCBTSFLG	TIME SHARING FLAGS	TCBSTPPR	X'40'	TASK SHOULD BE MADE NDSP VIA TCBSTPP WHEN NO LONGER RUNNING A PRIVILEGED PROGRAM
		TCBATT	X'20'	TASK SHOULD NOT HAVE ATTENTION EXITS SCHEDULED
		TCBTIOTG	X'10'	PURGE TGET/TPUT AFTER ATTENTION
		TCBRSV17	X'08'	RESERVED
		TCBRSV18	X'04'	RESERVED
		TCBDYDSP	X'02'	M195 TASK IS MEMBER OF DYNAMIC DISPATCHING
		TCBCPUBN	X'01'	FOR M195, ZERO MEANS I/O BOUND AND ONE MEANS
TNONDISP	ALIAS	TCBDARPN	X'40'	TASK PERMANENTLY NONDISPATCHABLE -
TCBTID	TASK ID NUMBER	TCBPAGID	X'FF'	ID FOR PAGING SUPERVISOR TASK
		TCBSYERR	X'FE'	ID FOR SYSTEM ERROR TASK
		TCBCOMM	X'FD'	ID FOR COMMUNICATIONS TASK
		TCBIORMS	X'FC'	ID FOR I/O RMS TASK
		TCBMASTR	X'FB'	ID FOR MASTER SCHEDULER TASK
		TCBJES	X'FA'	ID FOR JES MONITOR TASK
		TCBDSSID	X'F9'	ID FOR DSS TASK

TPC (Timer Data Area)

Total size: 176 bytes
Created by: System Generation
Purpose: Stores constants and predefined timer queue elements used by timer supervision.

STORAGE MAP OF TPC

DEC	HEX	
0	0	IEACLOCK AREA USED TO STORE CLOCK
8	8	TTIMERQ HEAD OF CPU TIMER QUEUE
12	C	CTIMERQ HEAD OF CLOCK COMPARATOR QUEUE
16	10	UNNAMED FLAG BYTE,TCB ADDR FIELDS OF DUMMY TQE
20	14	UNNAMED DUMMY TQE AND END OF QUEUE INDICATOR
24	18	UNNAMED ADDRESS OF FIELD TO SIMULATE ADDRESS OF PREVIOUS TQE
28	1C	UNNAMED RESERVED
32	20	UNNAMED VALUE > 24 HOURS IN 1.048576 SECOND UNITS
36	24	SAVER10 SAVE AREA FOR REG 10
40	28	UNNAMED FLAG BYTE,TCB ADDR FIELDS OF MIDNIGHT TQE

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DEC	HEX	
44	2C	UNNAMED FORWARD CHAIN FIELD
48	30	UNNAMED BACKWARD CHAIN FIELD
52	34	UNNAMED RESERVED
56	38	MNIGHT TQEVAL FIELD
64	40	UNNAMED FLAG BYTE,TCB ADDR FIELDS OF THE SMF 10
68	44	UNNAMED FORWARD CHAIN FIELD
72	48	UNNAMED BACKWARD CHAIN FIELD
76	4C	UNNAMED RESERVED
80	50	UNNAMED 10 MINUTES IN MICROSECONDS
88	58	UNNAMED FLAG BYTE,TCB ADDR FIELDS OF TSO DRVR TQE
92	5C	UNNAMED FORWARD CHAIN FIELD

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DEC	HEX	
96	60	UNNAMED BACKWARD CHAIN FIELD
100	64	UNNAMED RESERVED
104	68	UNNAMED TQEVAL FIELD
112	70	TTOPQ TO SEE IF TQE AT HEAD OF CPU TIMER QUEUE
116	74	CTOPQ TO SEE IF TQE AT HEAD OF CLOCK COMP QUEUE
120	78	TSDBLDAT WORK AREA
128	80	CDUMMY BACKWARD CHAIN POINTER
132	84	UNNAMED RESERVED
136	88	UNNAMED FLAGS DUMMY TQE ON CLOCK COMPARATOR QUEUE
140	8C	INTERVAL BIT 51 EQUIVALENT TO 1 MICROSECOND

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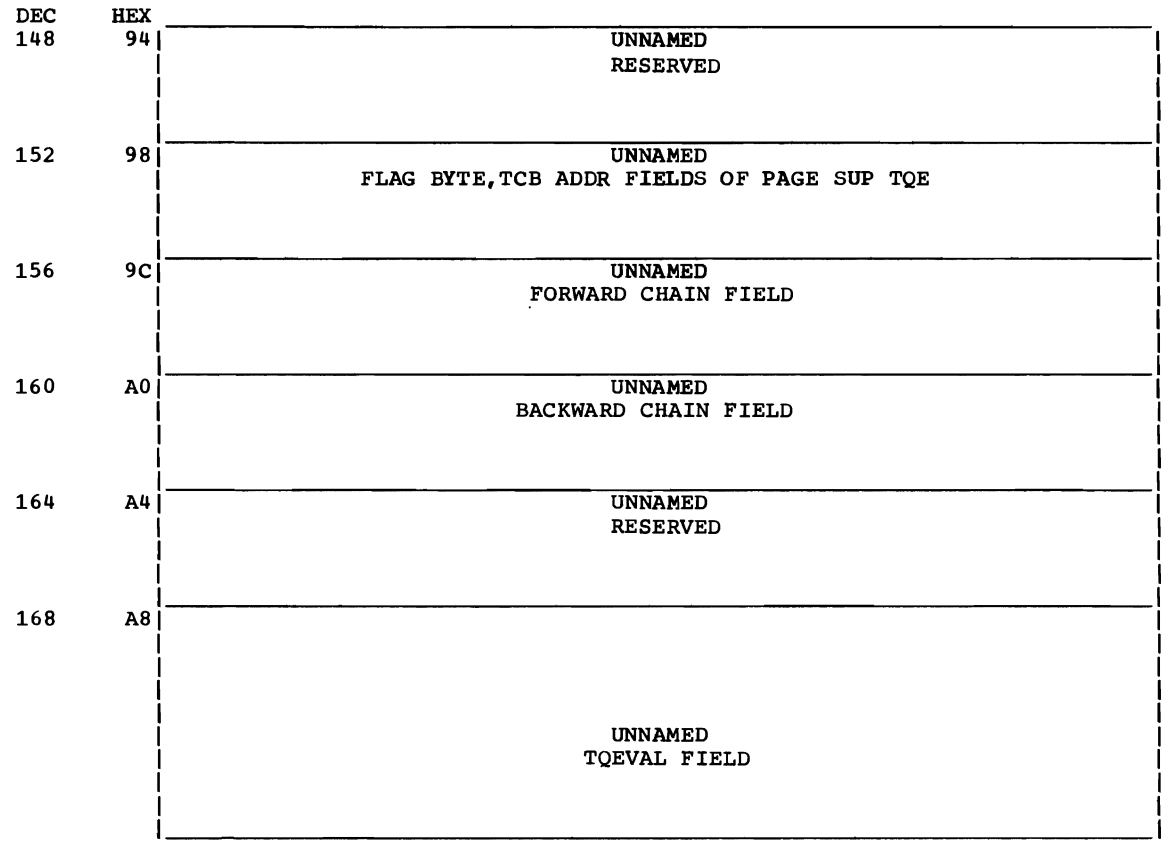

DISPLACEMENT LIST OF FIELDS IN TPC

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	IEACLOCK	0040	0028	MIDNTQE	0120	0078	TSDBLDAT
0000	0000	IEATPC	0056	0038	MNIGHT	0128	0080	CDUMMY
0008	0008	TTIMERQ	0064	0040	TENMELM	0140	008C	INTERVAL
0012	000C	CTIMERQ	0088	0058	IEATSELM	0152	0098	PGSUPTQE
0016	0010	TDUMYTQE	0112	0070	TTOPQ	0176	00B0	TPCEND
0036	0024	SAVER10	0116	0074	CTOPQ			

ALPHABETICAL LIST OF FIELDS IN TPC

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
CDUMMY	0128	0080	INTERVAL	0140	008C	TENMELM	0064	0040
CTIMERQ	0012	000C	MIDNTQE	0040	0028	TPCEND	0176	00B0
CTOPQ	0116	0074	MNIGHT	0056	0038	TSDBLDAT	0120	0078
IEACLOCK	0000	0000	PGSUPTQE	0152	0098	TTIMERQ	0008	0008
IEATPC	0000	0000	SAVER10	0036	0024	TTOPQ	0112	0070
IEATSELM	0088	0058	TDUMYTQE	0016	0010			

TQE (Timer Queue Element)

Total size: 128 bytes
Created by: STIMER routine
Purpose: Used by timer supervision to record the information necessary to schedule and process a request for a timed interval.

STORAGE MAP OF TQE

DEC	HEX		
0	0	TQEFLGS TQE FLAG BYTE	TQETCBA ADDRESS OF TCB
4	4	TQERSV1	TQEFLNKA ADDRESS OF NEXT TQE
8	8	TQERSV2	TQEBLNKA ADDRESS OF PRECEDING TQE
12	C	TQELHPSW FIRST WORD CURRENT PSW - USED WHEN TQE SERVES AS IRB	
16	10	TQEVAL TIME OF EXPIRATION/TIME REMAINING	
24	18	TQERSV3	TQESADRA ADDRESS OF PROCESSING PROG'S SAVE AREA
28	1C	TQERSV4	TQEEXITA ADDR OF TIMER ASYNCHRONOUS EXIT ROUTINE
32	20	= TQEGRS REGISTER SAVE AREA - USED WHEN TQE SERVES AS RB =	

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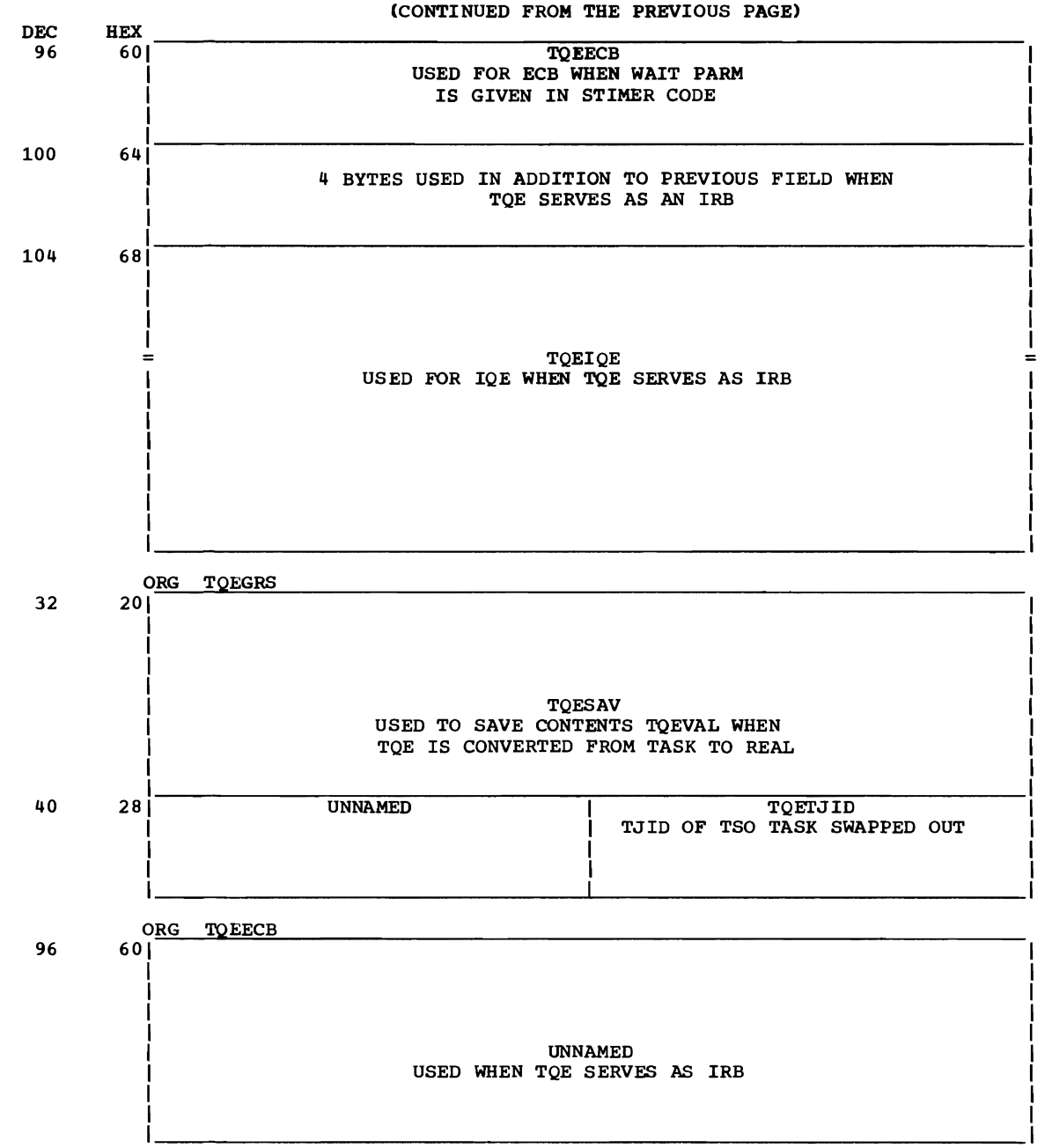


DISPLACEMENT LIST OF FIELDS IN TQE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	TQEFLGS	0009	0009	TQEBLNKA	0029	001D	TQEEXITA	
0000	0000	TQETCB	0012	000C	TQELHPSW	0032	0020	TQESAV	
0001	0001	TQETCBA	0016	0010	TQEVAL	0032	0020	TQEGRS	
0004	0004	TQERSV1	0024	0018	TQERSV3	0042	002A	TQETJID	
0004	0004	TQEFLNK	0024	0018	TQESADDR	0096	0060	TQEECB	
0005	0005	TQEFLNKA	0025	0019	TQESADRA	0104	0068	TQEIQE	
0008	0008	TQERSV2	0028	001C	TQERSV4	0128	0080	TQELEN	(EQU)
0008	0008	TQEBLNK	0028	001C	TQEEXIT	0128	0080	TQEEND	

ALPHABETICAL LIST OF FIELDS IN TQE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
TQEBLNK	0008	0008	TQEFLNKA	0005	0005		TQERSV4	0028	001C
TQEBLNKA	0009	0009	TQEGRS	0032	0020		TQESADDR	0024	0018
TQEECB	0096	0060	TQEIQE	0104	0068		TQESADRA	0025	0019
TQEEND	0128	0080	TQELEN	0128	0080	(EQU)	TQESAV	0032	0020
TQEEXIT	0028	001C	TQELHPSW	0012	000C		TQETCB	0000	0000
TQEEXITA	0029	001D	TQERSV1	0004	0004		TQETCBA	0001	0001
TQEFLGS	0000	0000	TQERSV2	0008	0008		TQETJID	0042	002A
TQEFLNK	0004	0004	TQERSV3	0024	0018		TQEVAL	0016	0010

FLAGS AND MASKS

FLAG	CONTAINS
TQEFLGS	TQE FLAG BYTE

MASK	VALUE	MEANS
TQEOFF	X'80'	TQE IS OFF TIMER QUEUE
TQETOD	X'40'	TOD OPTION USED
TQEINCOM	X'08'	INTERVAL IS COMPLETE
TQEXITSP	X'04'	EXIT SPECIFIED
TQETYPE	X'03'	TQE TYPE: 00 = TASK REQUEST 01 = WAIT REQUEST 10 = SUPERVISORY ELEMENT 11 = REAL REQUEST BITS 5-7 = 110 = MIDNIGHT SUPERVISORY TIMER ELEMENT

TSCE (Time Slice Control Element)

Total size: 16 bytes
Created by: System Generation
Purpose: The dispatcher controls time slicing through the time-slice control element (TSCE). There is one TSCE for each time slice group.

STORAGE MAP OF TSCE

DEC	HEX		
0	0	TSDPRTY DISPATCHING PRIORITY	TSFIRSTA FIRST TCB ADDRESS
4	4	TSPLAST UNUSED	TSLASTA LAST TCB ADDRESS
8	8	TSPNEXT UNUSED	TSNEXTA ADDRESS OF NEXT TCB TO BE DISPATCHED
12	C	TSCFLGS0 FLAG BYTE CONTAINS LAST TSCE INDICATOR	TSLENTHA LENGTH OF TIME SLICE

DISPLACEMENT LIST OF FIELDS IN TSCE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	TSDPRTY	0005	0005	TSLASTA	0012	000C	TSLENTH	
0000	0000	TSFIRST	0008	0008	TSPNEXT	0013	000D	TSLENTHA	
0001	0001	TSFIRSTA	0008	0008	TSNEXT	0016	0010	TSLEN	(EQU)
0004	0004	TSPLAST	0009	0009	TSNEXTA	0016	0010	TSEND	
0004	0004	TSLAST	0012	000C	TSCFLGS0				

ALPHABETICAL LIST OF FIELDS IN TSCE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
TSCFLGS0	0012	000C	TSLAST	0004	0004		TSNEXT	0008	0008
TSDPRTY	0000	0000	TSLASTA	0005	0005		TSNEXTA	0009	0009
TSEND	0016	0010	TSLEN	0016	0010	(EQU)	TSPLAST	0004	0004
TSFIRST	0000	0000	TSLENTH	0012	000C		TSPNEXT	0008	0008
TSFIRSTA	0001	0001	TSLENTHA	0013	000D				

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
TSCFLGS0	FLAG BYTE	TSCELAST	X'80'	LAST TSCE INDICATOR

VALMAP+RRV (Validity Map)

Total size: 48 bytes
Created by: IEAVPRT0
Purpose: Defines storage addresses that can be addressed by a non-key-0 program in a virtual storage region.

STORAGE MAP OF VALMAP

DEC	HEX	
0	0	NUCBEG BEGINNING OF NUCLEUS
4	4	NUCEND END OF NUCLEUS
8	8	REGBEG BEG OF REGION OR LSQA, IF LOWER
12	C	REGEND END OF REGION OR LSQA, IF LOWER
16	10	LSQABEG BEG OF LSQA OR REGION, IF HIGHER
20	14	LSQAEND END OF LSQA OR REGION, IF HIGHER
24	18	LPABEG BEGINNING OF LPA
28	1C	SQAEND END OF SQA

ORG VALMAP (RRV)

0	0	RRVFLAG1 FLAG BYTE	RRVLBNDA AREA START ADDRESS (24-BIT ADDRESS)
4	4	UNNAMED (NOT SEPARATELY REFERENCED)	RRVHBNDA AREA END ADDRESS (24-BIT ADDRESS)

DISPLACEMENT LIST OF FIELDS IN VALMAP + RRV

DEC	HEX	FIELD	DEC	HEX	FIELD		DEC	HEX	FIELD
0000	0000	RRVFLAG1	0004	0004	RRVHBND		0008	0008	REGBEG
0000	0000	RRVLBND	0004	0004	RRVWD2		0012	000C	REGEND
0000	0000	RRVWD1	0004	0004	NUCEND		0016	0010	LSQABEG
0000	0000	RRVENTRY	0005	0005	RRVHBNDA		0020	0014	LSQAEND
0000	0000	RRV	0008	0008	RRVNEXT		0024	0018	LPABEG
0000	0000	NUCBEG	0008	0008	RRVEND		0028	001C	SQAEND
0001	0001	RRVLBNDA	0008	0008	RRVLEN	(EQU)			

ALPHABETICAL LIST OF FIELDS IN VALMAP + RRV

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	
LPABEG	0024	0018	RRV	0000	0000	RRVLBNDA	0001	0001	
LSQABEG	0016	0010	RRVEND	0008	0008	RRVLEN	0008	0008	(EQU)
LSQAEND	0020	0014	RRVENTRY	0000	0000	RRVNEXT	0008	0008	
NUCBEG	0000	0000	RRVFLAG1	0000	0000	RRVWD1	0000	0000	
NUCEND	0004	0004	RRVHBND	0004	0004	RRVWD2	0004	0004	
REGBEG	0008	0008	RRVHBNDA	0005	0005	SQAEND	0028	001C	
REGEND	0012	000C	RRVLBND	0000	0000				

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
RRVFLAG1	FLAG BYTE	RRVLAST	X'80'	IF 1, CURRENT ENTRY IS LAST IN USE

VSL (Virtual Subarea List)

Total size: Variable
Purpose: Composed of one or more 8-byte entries describing an area of virtual storage on which some paging operation is to be performed. In addition, the first VSL entry defines functions to be performed and options chosen. The VSL is the input to the Page Service Interface routine (IEAPSI) for FIX, FREE, LOAD, or RELEASE operations.

STORAGE MAP OF VSL

DEC	HEX		
0	0	VSLFLG1 FLAGS, INCLUDING OPTION FLAGS	VSLSTART START ADDRESS OF THE VIRTUAL SUBAREA DESCRIBED BY THIS ENTRY
4	4	VSLFLG2 SECOND FLAG FIELD	VSLENDP1 END ADDRESS PLUS 1 OF THE VIRTUAL SUBAREA DESCRIBED BY THIS ENTRY

DISPLACEMENT LIST OF FIELDS IN VSL

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	VSLFLG1	0004	0004	VSLFLG2	0008	0008	VSLLEN	(EQU)
0000	0000	VSLSTARF	0004	0004	VSLENDPF	0008	0008	VSLEND	
0001	0001	VSLSTART	0005	0005	VSLENDP1				

ALPHABETICAL LIST OF FIELDS IN VSL

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
VSLEND	0008	0008	VSLFLG1	0000	0000		VSLSTARF	0000	0000
VSLENDPF	0004	0004	VSLFLG2	0004	0004		VSLSTART	0001	0001
VSLENDP1	0005	0005	VSLLEN	0008	0008	(EQU)			

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
VSLFLG1	FLAGS, INCLUDING OPTION FLAGS THAT ARE MEANINGFUL ONLY IN THE FIRST ENTRY	VSLCONT	X'80'	CONTINUATION FLAG. IF ON, VSLSTART POINTS TO NEXT ENTRY
		VSLFIX	X'40'	FIX OPTION FLAG
		VSLFREE	X'20'	FREE OPTION FLAG
		VSLOAD	X'10'	LOAD OPTION FLAG
		VSLRLS	X'08'	RELEASE OPTION FLAG
		VSLONG	X'02'	LONG-TERM OPTION FLAG
VSLFLG2	SECOND FLAG FIELD	VSLAST	X'80'	LAST ENTRY FLAG
		VSLNULL	X'40'	NULL ENTRY FLAG. IF ON, INDICATES "IGNORE ENTRY"
		VSLRAO	X'20'	REAL ADDRESS OPTION FLAG. IF ON, VSLSTART ADDRESS IS IN VSLENDP1
		VSLERR	X'10'	ERROR FLAG FOR UNDEFINED VIRTUAL SPACE.
		VSLPEND	X'08'	FOR BRANCH ENTRY, IF THRESHOLD IS EXCEEDED, SUSPEND THE REQUEST

XPTE (External Page Table Entry)

Total size: 8 bytes
Created by: IEAPTCD (Create Page Table routine)
Purpose: Used to associate a virtual page with a page on an external paging device.

STORAGE MAP OF XPTE

DEC	HEX				
0	0	XPTDEV INDEX TO TABLE CONTAINING DEVICE ADDRESS	XPTSLOT SLOT NUMBER WITHIN GROUP	XPTGROUP SLOT GROUP NUMBER	
4	4	XPTPROT PROTECTION KEY	XPTPCBQ PCB QUEUE NUMBER	XPTFLAGS FLAG FIELD	XPTRSV1 RESERVED

DISPLACEMENT LIST OF FIELDS IN XPTE

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	
0000	0000	XPTDEV	0002	0002	XPTGROUP	0007	0007	XPTRSV1	
0000	0000	XPTXADDR	0004	0004	XPTPROT	0008	0008	XPTLEN	(EQU)
0001	0001	XPTSLOT	0005	0005	XPTPCBQ	0008	0008	XPTEND	
0001	0001	XPTSLNOS	0006	0006	XPTFLAGS				

ALPHABETICAL LIST OF FIELDS IN XPTE

FIELD	DEC	HEX	FIELD	DEC	HEX		FIELD	DEC	HEX
XPTDEV	0000	0000	XPTLEN	0008	0008	(EQU)	XPTSLNOS	0001	0001
XPTEND	0008	0008	XPTPCBQ	0005	0005		XPTSLOT	0001	0001
XPTFLAGS	0006	0006	XPTPROT	0004	0004		XPTXADDR	0000	0000
XPTGROUP	0002	0002	XPTRSV1	0007	0007				

FLAGS AND MASKS

FLAG	CONTAINS	MASK	VALUE	MEANS
XPTFLAGS	FLAG FIELD	XPTLPA	X'80'	WARM START PAGE, DO NOT DESTROY
		XPTXAV	X'40'	EXTERNAL STORAGE ADDRESS IS VALID
		XPTMIG	X'20'	MIGRATION PAGE FLAG, ALLOCATE EXTERNAL STORAGE FROM SECONDARY DEVICE
		XPTTAKE	X'10'	WHEN 1 = SWAP IN PAGE

XTLST (Extent List)

Total size: 16 bytes
Created by: IDENTIFY, OS Loader, Program Fetch
Purpose: Contains the address and length of each module in virtual storage.

STORAGE MAP OF XTLST

DEC	HEX		
0	0	XTLLNTH NUMBER OF BYTES IN EXTENT LIST (=16)	
4	4	XTLNRFAC NUMBER OF RELOCATION FACTORS (=1)	
8	8	UNNAMED ONE BYTE OF X'80'	XTLMSBLN LENGTH OF VIRTUAL STORAGE BLOCK
12	C	UNNAMED ONE BYTE OF X'00'	XTLMSBAD ADDRESS OF VIRTUAL STORAGE BLOCK

DISPLACEMENT LIST OF FIELDS IN XTLST

DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD
0000	0000	XTLLNTH	0008	0008	XTLMSBLA	0012	000C	XTLMSBAA
0004	0004	XTLNRFAC	0009	0009	XTLMSBLN	0013	000D	XTLMSBAD

ALPHABETICAL LIST OF FIELDS IN XTLST

FIELD	DEC	HEX	FIELD	DEC	HEX	FIELD	DEC	HEX
XTLLNTH	0000	0000	XTLMSBAD	0013	000D	XTLMSBLN	0009	0009
XTLMSBAA	0012	000C	XTLMSBLA	0008	0008	XTLNRFAC	0004	0004

SECTION 13

Diagnostic Aids

13

REGISTERS ON ENTRY AND EXIT..... 895
Standard Linkage Registers..... 895

CONTROL BLOCKS CROSS-REFERENCE TABLE..... 946

CONTROL BLOCKS REFERENCED/SET MATRIX..... 950.1

MESSAGES AND CODES ISSUED BY VS2 SUPERVISOR..... 953
Completion Codes Issued by VS2 Supervisor..... 953
Wait State Codes Issued by VS2 Supervisor..... 954
Messages Issued by VS2 Supervisor..... 954

This table list all entry points for each module, the name of the routine to which each module normally exits upon completion of its processing, and the register contents upon entry and exit.

The name of each entry point is followed by code letters in parentheses that indicate the supervisor component that contains the entry point. The meanings of the code letters are:

Code Letters	Meaning
CS	Contents Supervision
IS	Interruption Supervision
PS	Paging Supervision
T	Termination
TMS	Timer Supervision
TS	Task Supervision
VSS	Virtual Storage Supervision

STANDARD LINKAGE REGISTERS

The following registers are part of standard linkage conventions and have the same contents upon entry to each module. The contents of these registers are noted in the tables only where significant or when they contain information other than the standard information. The contents of other registers omitted are irrelevant.

Register 13	Address of save area
Register 14	Return address
Register 15	Return code

REGISTERS ON ENTRY AND EXIT

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
ABBRANCH (VSS)	(Upon entry)	0	High-order byte: number of the subpool requested Low-order three bytes: number of bytes requested; 0 if entire subpool is to be freed
		1	Negative if GETMAIN request Address of the storage to be freed 0 if entire subpool is to be freed
		3	Address of the CVT
		4	Address of TCB for which the storage is to be allocated or released
	RMBRAN1	0,1,3,4,	Unchanged
*ABRECUR (T) (ABEND Recursion phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	IGC1101C	4	Unchanged
	IGC1201C	4	Unchanged
	IGC2301C	3-5	Unchanged
	IGC3301C	4	Unchanged
	MCTEST	4	Unchanged
ALIASRCH and ALIAS1 (CS)	(Upon entry)	3	Address of CVT (entry to ALIAS1)
		4	Address of current TCB
		5	Address of current RB
		6	Address of BLDL/Fetch work area
		7	Base address of contents supervision
		9	Address of entry-point name
		10	Address of DCB
		11	Address of CDE for requested name
	CDQUECTL PGMFETCH PLUSCONT		See register contents upon entry for these entry points elsewhere in this table.
BUILDEL (CS)	(Upon entry)	3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Address of BLDL/Fetch work area
		7	Base address of contents supervision
		9	Address of entry-point name
		10	Address of DCB
	CDCONTRL DEFOUND ERRORTAB SATMAR		See register contents upon entry for these entry points elsewhere in this table.
*BYSTAE (T) (ABEND Initial Housekeeping phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	ABRECUR	3-5	Unchanged
	IEA0DS (Dispatcher)	0-15	Irrelevant

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
*BYSTAE (T) (Cont'd)	IGC0301C	3-5	Unchanged
		6	Address of job-step TCB
	IGC1301C	3-5	Unchanged
	MAINLINE	3-5	Unchanged
CDADVANS (CS) (in LINK)	(Upon entry)	3	Address of CVT
		4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
		9	Address of requested entry-point name
		10	Address of DCB (complement form)
	CDEMERGE CDQUECTL CDSETUP		See register contents upon entry for these entry points elsewhere in this table.
CDALLOC (CS)	(Upon entry)	0	First four characters of module name
		1	Last four characters of module name
		5	Address of RB
		7	Base address of contents supervision
		11	Address of the CDE of the argument module
		12	Address of major CDE
		13	Contains zero
		15	Return address of branch table
	Caller	0-15	Irrelevant
	CDSETUP ERRORTAB		See register contents upon entry for these entry points elsewhere in this table.
CDCONTRL	(Upon entry)		See IEAQCS02
CDDESTRY (TS) (in Exit)	(Upon entry)	2	Address of CDHKEEP+2
		3	Address of CVT
		4	Address of current TCB
		11	Address of CDE
		12	Return address
	Caller	2-7,9, 12,13	Unchanged
CDEMERGE (CS)	(Upon entry)	3	Address of CVT
		4	Address of TCB
		5	Address of PRB
		7	Base address of contents supervision
		11	Address of CDE for requested name
		12	Address of major CDE
	CDEPILOG CDLDRET		See register contents upon entry for these entry points elsewhere in this table.
CDEXIT (TS) (in Exit)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
	Caller	3-6,9	Unchanged
	CDHKEEP	13	Caller's return address

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
CDFILIN (CS)	(Upon entry)	1	Address of TASKLIB TCB
		4	Address of current TCB
		5	Address of current RB
		7	Base address of contents supervision
		10	Address of DCB
	CDCONTRL		See IEAQCS02
CDHKEEP (TS) (in Exit)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
		11	Address of CDE
		13	Return address
	Caller	2-7,9,13	Unchanged
	CDDESTRY	12	Caller's return address
CDLDRET (CS)	(Upon entry)	4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
		11	Address of CDE
		12	Address of major CDE
	ERRORTAB Exit		See register contents upon entry for these entry points elsewhere in this table.
CDLKBASE (CS)	(Upon entry)		See IGC006
CDLLSRCH (CS)	(Upon entry)	4	Address of current TCB
		9	Address of entry-point name
		15	Return address
	Caller (BR 15)	0	Unchanged
		1	Address of previous LLE in the chain
		3-10	Unchanged
		11,12	Address of CDE from LLE
		13	Address of LLE
		14	Address of CDE from LLE
		15	Unchanged
	Caller (BR 15 + 4)	0	Unchanged
		3-10	Unchanged
		11,12	Address of CDE of last LLE searched
		13-15	Unchanged
CDMOPUP (CS)	(Upon entry)	5	Address of SVRB
		7	Base address of contents supervision
		11	Address of subject CDE (major or minor)
		12	Address of subject CDE (major)
		13	Return address
	Caller (BR 13) ERRORTAB	2-14	Unchanged
CDPURGE (VSS)	(Upon entry)	4	Address of TCB for requesting task
		9	Return address
	Caller	0-15	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
CDQUECTL (CS)	(Upon entry)	4	Address of TCB
		5	Address of SVRB
		7	Base address of contents supervision
		12	Address of major CDE
		13	Contains zero
		14	Address of dispatcher
	Dispatcher ERRORTAB		See register contents upon entry for these entry points elsewhere in this table.
CDSEARCH (CS)	(Upon entry)	8	Address of queue (LPAQ or JPAQ) to be searched
		9	Address of entry-point name
	Caller (BR 14)	0	First four characters of entry-point name
		1	Last four characters of entry-point name
		2-10	Unchanged
		11	Address of CDE
		12-13	Unchanged
	Caller (BR 14 + 4)		Same as above, except register 11 contains zero
CDSETUP (CS)	(Upon entry)	0	First four characters of module name
		1	Last four characters of module name
		4	Address of current TCB
		5	Address of current RB
		7	Base address of contents supervision
		8	Address of a contents directory
		9	Address of entry-point name or PDS DE
		10	Address of DCB
	CDCONTRL SATMAR		See register contents upon entry for these entry points elsewhere in this table.
CKTHRESH (VSS)	(Upon entry)	0	Address of TCB, or 0 if entered from DISPINIT
		1	Requested region size (complemented if a V=R region) 0 if entered from DISPINIT
		13	Return address
	Caller	15	Return Code — Meaning 0 — No thresholds exceeded 4 — A threshold has been exceeded
CLBRANCH (VSS) (S-Type FREEMAIN)	(Upon entry)	1	Address of parameter list
		3	Address of CVT
		4	Address of TCB for which storage is to be released
	FMBRANCH	1,3,4	Unchanged
CRNRLNTH (VSS)	(Upon entry)	9	Return address
		10	Length requested
	Caller	10	Rounded length
CSPCHK (VSS)	(Upon entry)	4	Address of TCB for requesting task
		9	Return address
		12	Subpool number
	Caller	7	Address of SPQE if it exists Zero if there is no SPQE

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
CSPCHK (VSS) (Cont'd)	IEAPGSWA	0	Byte 0 - Subpool number (for get SWA page, free SWA page, and free SWA segment requests)
		1	Address of parameter list (for get SWA segment request) Address of segment (for free SWA segment request) Address of page (for SWA page request) Negative value (for get SWA page request)
		4	Address of TCB
		5	Low-order byte: subpool number
		8,13	Base registers for IEAVGM00
		14	Return address (Exit routine if get SWA segment request; Type-1 Exit for other requests)
	IEAPLSQA	0	Byte 0 = X'F9' Bytes 1 and 2 = X'00' Byte 3 = Number of segments for this request
		1	Negative if GETMAIN 4 if normal free LSQA request 8 if forced free LSQA request
		3	Address of CVT
		4	Address of TCB
		8,13	Base registers for IEAVGM00
	IEAVPRT0	0	High-order byte: subpool number Low-order three bytes: region size on bytes (if SVC 10 region request)
		1	Negative value (if SVC 10 allocate region request) Positive value (if free region request) Address of parameter list (if SVC 4 request)
		4	Address of TCB
		5	High-order bytes are zero Low-order byte: subpool number
		8,13	Base registers for IEAVGM00
	GERROR	5	Error code
DALPRFIX (CS)	(Upon entry)	0	Address of entry-point name or PDS DE
		1	Address of DCB, or zero
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
	Caller (BR 14)	3-5,7	Unchanged
		9	Address of entry-point name in RBESA
		10	Address of DCB, or zero
DEFOUND (CS)	(Upon entry)	5	Address of SVRB
		6	Address of BLDL/Fetch work area
		7	Base address of contents supervision
		11	Address of major or minor CDE
	ALIAS1 ERRORTAB PGMFETCH		See register contents upon entry for these entry points elsewhere in this table.
DETOLPAQ (CS)	(Upon entry)	2	Address of LPDE
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
	CDEMERGE ERRORTAB		See register contents upon entry for these entry points elsewhere in this table.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
DISABLE (CS)	(Upon entry)	5	Address of current RB
		7	Base address of contents supervision
		13	Return address
	Caller (BR 13)	0-15	Unchanged
DISMISS (IS) (I/O FLIH return point from I/O supervisor)	(Upon entry)	10	Address of DISMISS
DISPINIT (VSS)	(Upon entry)	13	Return address
	Caller	0-15	Unchanged
*DMPHASE (T) (ABEND ABDUMP phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
		8	Address of DCB
	IGC0201C	3-5	Unchanged
DQLOAD (CS)	(Upon entry)	7	Base address of contents supervision
		9	Address of RB to be dequeued
		11	Address of major CDE
		15	Return address
	Caller (BR 15)	0-2	Unchanged
		3	Address of CVT
		4-8	Unchanged
		11-13	Unchanged
		15	Unchanged
ECTOBC (IS) (in Trace Routine)	Caller	14	Return address
		15	ILC and interruption code
ENABLE (CS)	(Upon entry)	5	Address of current RB
		7	Base address of contents supervision
		13	Return address
	Caller (BR 13)	0-15	Unchanged
**EOT (T) (EOT Mainline)	(Upon entry)	2	Base register set up by Exit -- address of label EDBSE
		3	Address of CVT
		4	Address of TCB
		5	Address of top RB
	Exit	13	Address of dispatcher
	IEA0AB00	0	Address of TCB to be abnormally terminated
		1	ABEND completion code with dump option
		14	Address of dispatcher
	IGC0001C	1	Completion code X'C03'
		0,2-15	Restored

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.
** EOT is not a true entry point. It is a label to which the Exit routine branches to begin normal termination processing.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
ERFETCH (TS) (in Stage 3 Exit Effector)	(Upon entry)	0-15	All registers irrelevant
	ERP	1	Address of RQE
		14	Address of SVC 3 instruction
		15	Entry-point address of ERP
	Exit Routine	0-15	All registers unpredictable
ERRORTAB (CS)	(Upon entry)	13	Contains zero Error Code — Meaning 4 or 8 — Entered from BUILDEL when name could not be found by BLDL, or BLDL encountered an I/O error while in operation Entered from CDALLOC when module is marked load-only, but was not requested via LOAD 8 — Entered from CDLDRET when responsibility count exceeds 225 on an LLE 4 — Entered from CDMOPUP when use count exceeded CDE Entered from CDQUECTL on detection of an interlock in using a serially reusable module, or multiple requests from the same task for a module that is being fetched Entered from DEFOUND when fetched module is marked mot executable by linkage editor, or module marked load-only but not requested via LOAD 12 — Entered from DETOLPAQ when search of LPA directory failed to locate an LPDE for a minor's major entry-point name 1, 2 or 3 — Entered from LXREFER when the parameter list extends into an invalid page 14 or 15 — Entered from PGMFETCH when Fetch returns with an error condition 12 — Entered from XCTL when a search of the LPA directory failed to find the SVC load module name
	ABEND	0-15	Irrelevant
FBQSRCH (VSS)	(Upon entry)	1	Search Code — Meaning 0 — Start the search at the low-address end of the queue 4 — Start the search at the high-address end of the queue (for LSQA or SWA)
		4	Address of TCB
		5	Subpool number
		6	Number of bytes requested
		7	Address of PGE
		8,13	Base registers for GETMAIN
	Caller	9	Address of allocated area
		15	Size of largest available area if request was not satisified

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
FBQSRCHA (VSS)	(Upon entry)	4	Address of TCB of requesting task
		6	Number of bytes requested
		12	Subpool number
	G4KSRCH	9	Address of allocated area
		15	Size of largest available area if request was not satisified
FELEMENT (VSS)	(Upon entry)	10	Number of bytes to be freed
		11	Address of area list
	FMCOMM1A	0	Length of area to be freed
		1	Address of area to be freed
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0
			Byte 1 = X'00'
			Byte 2 = SVC number
			Byte 3 = Key and mode
		8	Base registers for IEAVGM00
		10	Length to be freed
		12	Subpool number
		13	Base register for IEAVGM00 + 4096
FIXLOAD2 (PS)	(Upon entry)	1	Root PCB address
	Second Exit Routines	0-14	Restored from root PCB
		15	Return code from FIX (see Table in Diagram 5.21)
	Caller	3-7,14	Unchanged
FIXLOAD3 (PS)	(Upon entry) Caller of FIXLOAD2	3-7,14	Restored to contents at entry to FIXLOAD2
FLISTADV (VSS)	(Upon entry)	10	Address of length list
		11	Address of area list
	FRETRN1	0	Number of bytes to be freed
		1	Starting address of area to be freed
FMAINB (VSS)	(Upon entry)	1	Address to be freed
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0
			Byte 1 = X'F0'
			Byte 2 = SVC number
			Byte 3 = Key and mode
		8	Base register for IEAVGM00
		10	Length of area to be freed
		12	Subpool number
		13	Base register for IEAVGM00 + 4096
	Caller	0-15	Restored
FMBRANCH (VSS) (S-Type FREEMAIN branch entry point)	(Upon entry)	1	Address of parameter list
		3	Address of CVT
		4	Address of TCB for which storage is to be released

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
FMBRANCH (VSS) (Cont'd)	FMCOMMON	1	Address of parameter list if variable request
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0
			Byte 1 = X'F0'
			Byte 2 = SVC number
			Byte 3 = Key and mode
		8	Base register for IEAVGM00
		10	Address of length or length list for normal FREEMAIN requests
		11	Address of area to be freed or list of addresses to be freed (for normal requests). Address of two-word parameter list: first word contains address to be freed; second word contains the length (for variable requests)
		12	Subpool number
		13	Base register for IEAVGM00 + 4096
FCOM1 (VSS) FCOM FMCOMMON FMCOMM1	(Upon entry)	1	Address to be freed or zero if entire subpool is to be freed, for SVC 10 or RMBRANCH Address of parameter list if variable SVC 5 request
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0
			Byte 1 = X'00' if SVC = X'F0' if branch
			Byte 2 = SVC number
			Byte 3 = Key and mode
		8	Base register for IEAVGM00
		10	Length of area to be freed, or zero if entire subpool is to be freed, when request is SVC 10 or RMBRANCH Address of length or length list if SVC 5 or FMBRANCH request
		11	Address of area to be freed, or list of addresses to be freed (for normal requests) Address of two-word parameter list: first word contains address; second word contains length (for variable requests)
		12	Subpool number
		13	Base register for IEAVGM00 + 4096
	Caller	15	Zero
	GERROR	5	Error code
FMSMFCRE (VSS)	(Upon entry)	6	Address of TCB
		9	Return address
		14	Address of block freed
		15	Number of bytes freed
	FMCOMMON	0-15	Restored
FRETRN1 (VSS)	(Upon entry)	0	Number of bytes to be freed
		1	Starting address of area to be freed
	Requester	0-14	Restored
		15	Zero

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
FVARCHK (VSS)	(Upon entry)	11	Address of length
	FMCOMMIA	0	Number of bytes in area to be freed
		1	Starting address of area to be freed
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0 Byte 1 = X'00' Byte 2 = SVC number Byte 3 = Key and mode
		8	Base register for IEAVGM00
		10	Length of request
		11	Address of area to be freed
		12	Subpool number
		13	Base register for IEAVGM00 + 4096
GBLDAQE (VSS)	(Upon entry)	2	Address of FQE from which space is to be taken
		4	Address of TCB
		9	Return address
		10	Number of bytes requested
	Caller	0-5	Unchanged
		6	Unreliable
		7-15	Unchanged
GCOMM4 (VSS)	(Upon entry)	1	Address of GETMAIN parameter list
		4	Address of TCB
		10	Number of bytes requested, or address of length list
		11	Address of area list
		12	Subpool number
	GMCOMMON	1,4	Unchanged
		10,11	Unchanged
		12	Unchanged
GCOMM5 (VSS)	(Upon entry)	1	Address of GETMAIN parameter list
		4	Address of TCB
		10	Number of bytes requested, or address of length list
		11	Address of area list
		12	Subpool number
	Requester	0-14	Restored
		15	Zero
GERROR (VSS)	(Upon entry)	5	Error code to be changed
	ABTERM	1	Error code
	Caller	0	X'04'
GETAUX (VSS)	(Upon entry)	3	Address of CVT
		6	Number of bytes requested - Negative value if GETAUX request Positive value if FREEAUX request
	Caller	15	Return Code — Meaning 0 — Request satisified 4 — Insufficient auxiliary storage 8 — Invalid request

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
GETMAINB (VSS)	(Upon entry)	1	High-order byte: subpool number (245 or 255) Low-order three bytes: number of bytes requested (maximum size is 255)
		4	Address of TCB
		8,13	Base registers for IEAVGN00
	Caller	1	Address of storage assigned
	GBOTSATA	4	Address of TCB
GETSAVE (TS) (in ATTACH)	(Upon entry)	5	Address of new subtask's TCB
		10	Address of new subtask's TCB
		11	Base register for ATTACH routine
	IEAQCS01	0	True form: address of program Complemented form: address of PDS DE
		1	Address of DCB
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		14	Address of IEAQCS01
GFQEUPDT (VSS)	(Upon entry)	1	Address of preceding FQE
		2	Address of FQE
		9	Return address
		10	Number of bytes requested
	Caller	2	Address of allocated area
		10	Number of bytes requested
GFRECORE (VSS)	(Upon entry)	7	Address of subpool queue element
		9	Return address
		10	Length of request
	Caller	1	Address of previous FQE if request can be satisified Address of last DQE on chain if request is not satisfied
		2	Address of FQE to satisfy the request
		15	Address of largest available FQE if request is not satisfied
	GERROR	5	Error code
	GNOTSATC	4	Address of TCB
		15	Address of largest available area
GINREGS (CS)	(Upon entry)	4	Address of TCB
		5	Address of SVRB
	Caller (BR 14)	0-7	Unchanged
		8	Address of JPAQ pointer of requester's job-step TCB
		9-15	Unchanged
GLIST (VSS)	(Upon entry)	10	Address of length list
		11	Address of area list
	GCOMM5	0-15	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
GMBRANCH (VSS) (S-type GETMAIN branch entry point)	(Upon entry)	1	Address of parameter list
		3	Address of the CVT
		4	Address of TCB for which storage is to be allocated
	GMCOMMON	1	Address of parameter list
		3	Address of CVT
		4	Address of TCB
		10	Number of bytes requested, or address of length list
		11	Address of area list
		12	Subpool number
GMBRETRY (VSS)	(Upon entry)	1	High-order byte: subpool number (245 or 255) Low-order three bytes: number of bytes requested
		4	Address of TCB
		8,13	Base registers for IEAVGM00
	Caller of GETMAINB	1	Address of storage assigned
GMCOMMON (VSS) GMCOMM1 GMREPEAT	(Upon entry)	1	Address of GETMAIN parameter list
		4	Address of TCB
		10	Number of bytes requested, or address of length list
		11	Address of area list
		12	Subpool number
	Caller	15	Return Code Meaning 0 Request satisfied 4 Conditional request with negative length
	GERROR	5	Error code
	GNOTSATA GNOTSATB	4	Address of TCB
GMSMFCRE (VSS)	(Upon entry)	4	Address of TCB for requesting task
		9	Return address
		14	Address of block of storage allocated
		15	Size of storage block allocated
	Caller (G4KSRCH)	0-15	Unchanged
GNOTSATA (VSS) GNOTSATB GNOTSATC	(Upon entry)	4	Address of TCB for requesting task
		15	Address of largest available area
	GERROR	5	Error code
	GMBRETRY	1	High-order byte: subpool number Low-order three bytes: number of bytes requested
		4	Address of TCB
		8,13	Base registers for IEAVGM00
	GMREPEAT	1	Address of GETMAIN parameter list
		4	Address of TCB
		10	Number of bytes requested
		11	Address of area list
		12	Subpool number

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
GSPQESPC (VSS)	(Upon entry)	4	Address of TCB for requesting task
		9	Return address
		12	Subpool number
	Caller	7	Address of SPQE
G4KSRCH (VSS)	(Upon entry)	1	Address of last DQE on queue
		4	Address of TCB for requesting task
		6	Number of bytes required (rounded to a multiple of 4096)
		10	Number of bytes requested
		12	Subpool number
	Caller	2	Address of allocated area
		15	Address of largest available area
*HOUSKEEP (T) (ABEND Final Housekeeping phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	EOT	3-5	Unchanged
	IEAQERA	7	Address of TCB to be erased
IDPREFIX (CS)	(Upon entry)	0	Address of entry-point name, or zero
		1	Address of entry-point address of requested module, or address of variable extent list
		13	Base address of contents supervision
	Caller (BR 14)	0-1	Unchanged
		3-6	Unchanged
		13	Unchanged
IEADQIQE (T) (EOT Dequeue IQE subroutine)	(Upon entry)	4	Address of TCB for which IQEs are to be removed
	Caller	0-5	Unchanged
		7-14	Unchanged
IEADQTCB (T) (EOT Dequeue TCB subroutine)	(Upon entry)	3	Address of CVT
		4	Address of TCB to be dequeued
	Caller	0-15	Saved and restored
IEAKJXP (T) (EOT Purge TAXE subroutine)	(Upon entry)	4	Address of current TCB
	Caller	0-15	Saved and restored
IEAMODBR (TS) (in MODESET)	(Upon entry)	7	Entry-point address
		8	Parameter list: Bits 0-7 OR mask Bits 8-15 AND mask Bits 16-23 Must equal 0 Bit 24 Use OR mask if 1 Bit 25 Use AND mask if 1 Bits 26-31 Must equal 0
		10	Return address

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAMODBR (TS) (Cont'd)	Caller	0-7, 10-15	Unchanged
		8	Contains inverse of specified operation if successful; otherwise unpredictable
		9	Return Code / Meaning X'00' Operation successful X'04' Invalid request X'08' User not authorized for requested operation
IEAPABNU (PS)	(Upon entry)	2	Address of IOB
		3	Address of DEB
		4	Address of DCB
		7	Address of UCB
	IOS	0-8,14	Unchanged
		9	Binary zero
IEAPALOC (PS)	(Upon entry)	1	For a paging exception, disabled page fault, long-fix request, or normal-fix request - Negative address of input PCB Otherwise - Positive address of first PCB on the real storage allocation queue
	Caller (except Queue Scanner)	15	Return Code / Meaning X'00' Successful; page reclaimed or first reference to the page X'04' Successful; page assigned and page-in needed X'08' Unsuccessful; request routed to the real storage allocation queue X'0C' Successful; request related to a currently active request
IEAPAUXS (PS)	(Upon entry)	1	Address of first PCB on the auxiliary storage allocation queue. (SWAP calls with the PCBs not on the auxiliary queue.)
	Caller	3	Unchanged
IEAPAUX2 (PS)	(Upon entry)	1	Encoded external page address
	Caller	3-7	Unchanged
IEAPCBB (PS)	(Upon entry)	1	Number of PCBs to be allocated
	Caller	1	Address of skeletal PCB (if successful)
		2-14	Unchanged
		15	Return Code / Meaning X'00' Successful X'04' The request could not be satisfied
IEAPCBM (PS)	(Upon entry)	1	High-order byte = 0 To add PCBs to a queue - First PCB address of chain To move PCBs from one queue to another - Identification number of the PCB queue to be scanned
	Caller	0-14	Unchanged
		15	Zero

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPCBR (PS)	(Upon entry)	1	Address of PCB for which an explicit paging operation is in progress
		2	Address of PCB to be related to the PCB pointed to by register 1
	Caller	0-14	Unchanged
		15	Zero
IEAPCEAP (PS)	(Upon entry)	2	Address of IOB
		3	Address of DEB
		4	Address of DCB
		7	Address of UCB
	IOS	0-8	Unchanged
		9	Binary zero
IEAPCHTH (PS)	(Upon entry)	0	Address of requester's TCB
		1	Absolute V=V region size or complemented V=R region size Note: R0=R1=0 indicates a non-specific DISPINIT call
	Caller	0-14	Unchanged
		15	Return Code Meaning X'00' No thresholds violated X'04' At least one threshold violated
IEAPCLR2 (PS)	(Upon entry)	1	Address of VSL
		15	Zero
	Caller	3-7	Unchanged
		15	Zero
IEAPCLR3 (PS)	(Upon entry)	1	Virtual address (the page containing that address is to be released)
	Caller	3-7	Unchanged
		15	Zero
IEAPCRQS (PS)	(Upon entry)	1	Queue number to be released
	Caller	0-14	Unchanged
		15	Zero
IEAPDSBL (PS)	(Upon entry)	1	Address of paging supervisor TQE
	Caller	2-14	Unchanged
IEAPFIXP (PS)	(Upon entry)	1	Address of TCB whose FOEs are to be purged
	CALLER	2-14	Unchanged
IEAPFIXQ (PS)	(Upon entry)	0	Address of first TCB whose fix-related activity is to be quiesced
		1	Address of last TCB whose fix-related activity is to be quiesced
	Caller	2-14	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPFIXR (PS)	(Upon entry)	0	Address of first TCB whose fixes are to be reinstated
		1	Address of last TCB whose fixes are to be reinstated
		2	ECB address
	Caller	2-14	Unchanged
IEAPFP (PS)	(Upon entry)	1	Address of PCB
	Caller	0-14	Unchanged
		15	Return Code / Meaning X'00' Successful X'04' Segment not assigned X'08' Internal error
IEAPFP2 (PS)	(Upon entry)	1	Virtual address
	Caller	0	Address of PTE
		1	Address of XPTE
		2-14	Unchanged
		15	Return Code / Meaning X'00' Successful X'04' Segment not assigned X'08' Internal error
IEAPGSFF (PS)	(Upon entry)	1	Address of parameter list
	Caller	0-14	Unchanged
		15	Return Code / Meaning X'00' All pages fixed X'04' No pages fixed
IEAPGSWA (VSS)	(Upon entry)	0	Byte 0 - Subpool number (for get SWA page, free SWA page, and free SWA segment requests)
		1	Address of parameter list (for get SWA segment request) Address of segment (for free SWA segment request) Address of page (for free SWA page request) Negative value (for get SWA page request)
		4	Address of TCB for requesting task
		5	Low-order byte: subpool number
		8,13	Base registers for IEAVGM00
		14	Return address (Exit routine if get SWA segment request; Type-1 Exit for other requests)
	Type-1 Exit or Exit	1	Address of parameter list if get or free SWA request; first address list entry in SWA segment Address of page if successful get SWA page request
		15	Return Code / Meaning 0 Indicates success 4 Indicates: For a get SWA segment request, the request is deferred either because a previous specific register request was deferred, or because sufficient storage is not available 4 For a free SWA segment request, the request is ignored because either the segment to be freed is not represented by a SWAB or not all pages in the segment are free

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPGSWA (VSS) (Cont'd)			Return Code — Meaning 4 — For a get SWA page request, the request is ignored because no free page could be found in the currently defined segments allocated for SWA 4 — For a free SWA page request, the request is ignored because the page is already free or does not exist in the currently defined SWA segment 8 — Indicates: for a free SWA page, the segment for this page is completely free
IEAPIN1 (PS)	(Upon entry)	1	Address of root PCB
	Caller	3-7,14	Unchanged
IEAPIN3 (PS)	(Upon entry)	1	Address of root PCB
	Caller	3-7,14	Unchanged
IEAPIN4 (PS)	(Upon entry)	1	Address of root PCB
	Caller	3-7,14	Unchanged
IEAPIOP (PS)	(Upon entry)	0-13	Irrelevant
	Caller	10	Entry-point address of DISMISS in I/O FLIH
IEAPIOS (PS)	(Upon entry)	1	Address of first PCB on the Page I/O initiation queue
	Caller	14	Caller's address
IEAPIOS2 (PS)	(Upon entry)	2	Address of IOB for interrupted device
IEAPIOS3 (PS)	(Upon entry)	1	Address of PCB
	Caller	14	Caller's address (IEAPALOC)
IEAPIX (PS)	(Upon entry)	0-15	Irrelevant
	IEAPSER	0	Error code = 0700 (decimal)
	Caller	4-10	Unchanged
		15	Return Code — Meaning X'00' — Page-in required X'04' — No page-in required X'08' — Error
IEAPLSQA (VSS)	(Upon entry)	0	Byte 0 = X'F9' Bytes 1 and 2 = X'00' Byte 3 = Number of segments for this request
		1	Negative if GETMAIN address 4 if normal free LSQA request 8 if forced free LSQA request
		3	Address of CVT
		4	Address of TCB
		8,13	Base registers for IEAVGM00

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPLSQA (VSS) (Cont'd)	Caller	1	Address of skeleton TCB if ATTACH initiated the LSQA request Address of the Master Scheduler TCB if NIP initiated the request
		15	Return Code / Meaning 0 Successful 4 Error
IEAPMIGR (PS)	(Upon entry)	1	Address of first PCB on the migration queue
	Caller	0-15	Irrelevant
IEAPMVPG (PS)	(Upon entry)	1	Positive PFTE index if data in input page frame must be saved Negative PFTE index if data in input page need not be saved
	Caller	1	PFTE index: of input page if no replacement found of replacement page if one was found
		2-14	Unchanged
IEAPMVP2 (PS)	(Upon entry)	1	Positive PFTE index if data in input page frame must be saved Negative PFTE index if data in input page frame need not be saved
	Caller	1	PFTE index: of input page if no replacement found of replacement page if one was found
IEAPPCIA (PS)	(Upon entry)	2	Address of IOB
		3	Address of DEB
		4	Address of DCB
		7	Address of UCB
	IOS	0-8,14	Unchanged
		9	Zero
IEAPQCI (VSS)	(Upon entry)	1	Address of DQE
	Caller	0-14	Unchanged
IEAPQS (PS)	(Upon entry)	0-15	Unpredictable
	Caller	0-15	Unpredictable
IEAPRSL2 (PS)	(Upon entry)	1	Positive PFTE index - Add this PFTE to the bottom of the queue Negative PFTE index - Add this PFTE to the top of the queue
	Caller	1,3-7	Unchanged
IEAPRLS3 (PS)	(Upon entry)	1	PFTE index
	Caller	1,3-7	Unchanged
IEAPRPLS (PS)	(Upon entry)		
	Caller	3-7,14	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPRSRL (PS)	(Upon entry)	1	Address of first PCB on the reserve replenish queue
	Caller	0-15	Irrelevant
IEAPSER (PS)	(Upon entry)	0	Byte 1 - Bits 0-5 - Must be 0 Bit 6 - ABTERM option flag Bit 7 - MAJOR/MINOR flag Bytes 2-3 - Error code
		1	Address of TCB of task to be terminated, or 0
	RMS	0-15	Unpredictable
	Caller	2-14	Unchanged
IEAPSER2 (PS)	(Upon entry)	0	Byte 0 - Bits 0-5 Must be 0 Bit 6 - ABTERM option flag Bit 7 - MAJOR/MINOR flag Bytes 1-3 - Address of message
		1	Indicator of TCB to be terminated, or 0
	RMS	0-15	Unpredictable
	Caller	2-14	Unchanged
IEAPSIBR (PS)	(Upon entry)	0	Address of TCB
		1	For list form: Bit 0 = 1 Bytes 1-3 = Address of VSL For register form: Bit 0 = 0 Bytes 0-3 = First half of VSL entry
		2	For register form: Second half of VSL entry
	Caller	15	Return code (see table on Diagram 5.21 for FIX or LOAD) 0 for FREE
IEAPSIQR (PS)	(Upon entry)	0	Address of TCB
		1	For list form: Bit 0 = 1 Bytes 1-3 = Address of VSL For register form: Bit 0 = 0 Bytes 0-3 = First half of VSL entry
		2	For register form: Second half of VSL entry
	Caller	15	Return code (see table on Diagram 5.21 for FIX or LOAD) 0 for FREE
IEAPSI2 (PS)	(Upon entry)	1	Address of first PCB on the delayed post queue
	Caller	3-7	Unchanged
IEAPSI3 (PS)	(Upon entry)	0-15	Irrelevant
	Caller	2-14	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPSI5 (PS)	(Upon entry)	0	Address of TCB to which the FOEs should be merged
		1	Address of first FOE on chain to be merged
	Caller	2-14	Unchanged
IEAPQA1 (PS)	(Upon entry)	1	Positive virtual address for LSQA page Negative virtual address for SQA page
		4	TCB address of GETMAIN requester
	GETMAIN	0	Real address of assigned page frame
		1-14	Unchanged
		15	Return Code: X'00' Successful; X'04' Unsuccessful
	IEAPSER	1	Error code 0201 or 0202
IEAPSQA2 (PS)	(Upon entry)	1	Positive virtual address for long-fix page Negative virtual address for disabled page fault page
	Caller	0	Real address of assigned page frame
		1-14	Unchanged
		15	Return Code: X'00' Successful; X'04' Unsuccessful
	IEAPSER	1	Error code 0201 or 0202
IEAPSWAP (PS)	(Upon entry)	1	Address of first PCB on the swap queue
	Caller	14	Unchanged
IEAPTCD (PS)	(Upon entry)	0	Byte 0 - Bit 0 - Create/Destroy flag Bit 1 - Validate user segment table flag Bits 2-7 - 0 Byte 3 - Number of first segment to be established or deleted
		1	Byte 0 - Bit 0 - PGT location flag Bits 1-7 - 0 Byte 3 - Number of segments to be established or deleted
		4	Address of TCB
	Caller	2-14	Unchanged
IEAPTERM (PS)	(Upon entry)	0	Address of TCB or RB to be purged
		1	Purge option indicator
	Caller	2-14	Unchanged
IEAPTQP (PS)	(Upon entry)	1	Address of first PCB on the task post queue
	Caller	0-15	Irrelevant
IEAPTRV (PS)	(Upon entry)	1	Real storage address to be translated
	Caller	1	Calculated virtual address, if one
		2-14	Unchanged
		15	Return Code: X'00' Successful; X'04' Unsuccessful; no mapping existed

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAPVRAL (PS)	(Upon entry)	1	Address of parameter list
	Caller	15	Return Code Meaning X'00' Successful X'0C' Request deferred X'10' Request cannot be honored
IEAPVRFL (PS)	(Upon entry)		
	Caller	0-14	Unchanged
IEAPVRFR (PS)	(Upon entry)	1	Address of parameter list
	Caller		
IEAPVRS (PS)	(Upon entry)	1	Address of PFTE for available page
	Caller	0-15	Irrelevant
IEAQABL (T) (EOT Release Loaded Programs subroutine)	(Upon entry)	3 4	Return address Address of current TCB
	Caller	3-5	Restored
IEAQCDSR (CS)	(Upon entry)		See CDSEARCH
IEAQCS01 (CS) (ATTACH entry)	(Upon entry)	0 1 3 4 5	Address of requested module's entry-point name or PDS DE address (complement form) Address of DCB Address of CVT Address of TCB Address of SVRB
	CDADVANS		See registers upon entry for CDADVANS
IEAQCS02 (CS)	(Upon entry)	3 4 5 7 8 9 10	Address of CVT Address of TCB Address of RB Base address of contents supervision Address of CDE queue to search Address of requested entry-point name Address of DCB (complement form)
	CDEMERGE CDQUECTL CDSETUP		See registers upon entry for these entry points elsewhere in this table.
IEAQCS03 (CS) (CDEPILOG)	(Upon entry)	3 4 5 7 11 12	Address of CVT Address of current TCB Address of current RB Base address of contents supervision Address of major or minor CDE Address of major CDE
	Exit	0 1 15	For ASIR, contains information in low-order byte For XCTI and LINK, unpredictable For SYNCH, contains same information as when SVC issued Unchanged Entry-point address of the module to gain control

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAQERA (T) (EOT Erase TCB subroutine)	(Upon entry)	7	Address of TCB to be erased
	Dispatcher	0-6,8-15	Restored
IEAQEX00 (IS) (External FLIH)	(Upon entry)	Control register 1	Address of system segment table or user segment table
		0-15	Same as when the interruption occurred
	IEA0DS (Dispatcher)	Control register 1	Address of the system segment table
IEAQIO00 (IS) (I/O FLIH)	(Upon entry)	Control register 1	Address of system segment table or user segment table
		0-15	Same as when the interruption occurred
	IEA0DS (Dispatcher) LPSW to Interrupted Program	Control register 1	Address of the system segment table
IEAQPGTM (T) (EOT Purge Timer subroutine)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
	Caller	8	Restored
IEAQPK00 (IS) (Program FLIH)	(Upon entry)	Control register 1	Address of system segment table or user segment table
		0-15	Same as when the interruption occurred
	IEAPSER (Paging Supervisor Error Recovery routine)	0	Bits 3-30=0
			Bit 31=1
		1	Zeros
		15	Address of IEAPSER
	IEA0AB01 (ABTERM Prologue 1)	1	System error code
		4	Address of the TCB to be scheduled for abnormal termination
		14	Return address (IEA0DS)
IEAQSC00 (IS) (SVC FLIH)	(Upon entry)	Control register 1	Address of system segment table or user segment table
		0-15	Same as when the interruption occurred
	IEAQTR00 (SVC SLIH)	3	Address of the CVT
		4	Address of current TCB
		5	Address of current RB
		6	Address of SVC entry in the SVC table
		7	Address of IEASCAV
		12	Address of IEAQTR00
		0,1,13, 15	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAQSC00 (IS) (Cont'd)	IEA0AB01 (ABTERM Prologue 1)	1	Error code
		3	Address of the CVT
		4	Address of current TCB
		5	Address of current RB
		13	Address of IEA0AB01
		14	Address of Type-1 Exit routine
	IEA0DS (Dispatcher)	Control register 1	Address of the system segment table
	Type-1 SVC routine	3	Address of the CVT
		4	Address of current TCB IEATCB+4
		5	Address of current RB
		14	Address of the Type-1 Exit routine
		0,1,13, 15	Same as when the interruption occurred
IEAQSPET (T) (EOT Release Storage subroutine)	(Upon entry)	3	Return address
		4	Address of current TCB
	Caller	0-15	Saved and restored
IEAQTD00 (TMS) IEAQTD01	(Upon entry)	1	Address of TQE
		2	Return address
	Caller	0-14	Restored
IEAQTD02 (TMS)	(Upon entry)	2	Return address
	Caller	0-14	Restored
IEAQTE00 (TMS)	(Upon entry)	1	Address of TQE
		2	Return address
	Caller	0-12	
		14,15	Restored
IEAQTR00 (IS) (SVC SLIH)	(Upon entry)	3	Address of the CVT
		4	Address of current TCB
		5	Address of top RB
		6	Address of SVC entry from the SVC table
		7	Address of IEASCSAV
		12	Address of IEAQTR00
		0,1,13, 15	Same as when the interruption occurred
	Type 2, 3, or 4 SVC routine (address in register 6)	3	Address of CVT
		4	Address of current TCB
		5	Address of current RB (SVRB) of the current TCB
		14	Address to which the SVC routine returns (an SVC 3 instruction in the CVT)
		0,1,13, 15	Same as when the interruption occurred
IEATRSCN (TS)	(Upon entry) (in STATUS)	8	Address of highest-level task in the chain to be searched
		10	Address of task from which search is to start on this call to IEATRSCN
		11	Return address (if no TCB is found)
		14	Return address (if TCB is found)
	Caller	10	Address of selected task if one was found
		0-6,8, 11-15	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAVAD00 (T) (SVCDUMP)	(Upon entry)	1	Address of parameter list
		3	Address of CVT
		4	Address of TCB
		5	Address of SVRB
	Caller	14	Unchanged
		15	Return Code / Meaning: X'00' Successful completion X'04' DCB not opened or invalid X'08' Caller not key 0 X'0C' Device not supported X'10' Recursion - SVCDUMP in progress X'14' Dump data set set full; dump not taken X'18' Invalid parameter list; no dump taken X'1C' Permanent I/O error or device not available; no dump taken X'20' Permanent I/O error or too many addresses; partial dump taken X'24' Unit exception on tape
	IEAVAD01	15	Address of SVC 3 instruction
IEAVAD01 (T) (Mainline ABDUMP)	(Upon entry)	1	Address of caller's parameter list
		3	Address of CVT
		4	Address of caller's TCB
		5	Address of ABDUMP SVRB
	Caller	2-14	Unchanged
		15	Return Code / Meaning: X'00' Successful completion X'04' DCB is not open or is unaddressable; dump as of another task; TCB address invalid X'08' Request for SVCDUMP issued by non-key-0 caller; insufficient storage; dump taken by task that has a sub-task that is a job-step task X'0C' Invalid DCB
	IGC0001C	1	X'0C4' Completion code
		3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
IEAVAD02 (T) (ABDUMP Header)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code / Meaning: X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD03 (T) (ABDUMP Control Blocks I)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	3-14	Unchanged
		15	Return Code / Meaning: X'00' Successful completion X'04' Insufficient storage for dump

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAVAD05 (T) (ABDUMP Control Blocks II)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	3-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD06 (T) (ABDUMP QCB)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD07 (T) (ABDUMP Save Area)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD08 (T) (ABDUMP Interface)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD0A (T) (ABDUMP Nucleus)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD0B (T) (ABDUMP Register)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD0C (T) (ABDUMP Trace)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Failure in GETMAIN processing X'08' Unexpected invalid page fault X'0C' GETMAIN processing for a save area failed X'10' GTF failure
IEAVAD0D (T) (ABDUMP Subpools)	(Upon entry)	1	Address of ABDAREA
	IEAVAD01	0-14	Unchanged
		15	Return Code Meaning X'00' Successful completion X'04' Insufficient storage for dump
IEAVAD11 (T) (ABDUMP OUTPUT)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Zero

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAVAD21 (T) (ABDUMP OUTPUT5)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Zero
IEAVAD31 (T) (ABDUMP FORMAT)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Return Code: X'00' Successful completion; X'08' Anticipated invalid page fault encountered
IEAVAD41 (T) (ABDUMP FORMAT01)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Return Code: X'00' Successful completion; X'08' Anticipated invalid page fault encountered
IEAVAD51 (T) (ABDUMP FORMAT20)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Return Code: X'00' Successful completion; X'08' Anticipated invalid page fault encountered
IEAVAD61 (T) (ABDUMP FORMAT22)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Return Code: X'00' Successful completion; X'08' Anticipated invalid page fault encountered
IEAVAD71 (T) (ABDUMP FORMET)	(Upon entry)	1	Address of ABDAREA
	Caller	0-14	Unchanged
		15	Return Code: X'00' Successful completion; X'04' Insufficient storage for dump
IEAVAD81 (T) (ABDUMP PRINT)	(Upon entry)	13-15	Standard register contents
	Caller	0-14	Unchanged
		15	Zero
IEAVPRT0 (VSS)	(Upon entry)	0	High-order byte: subpool number Low-order three bytes: region size in bytes, if SVC 10 region request (If SVC 4, this register is not significant)
		1	Negative value (if SVC 10 get region request) Positive value (if free region request) Address of parameter list (if SVC 4 request)
		4	Address of TCB for the requesting task
		5	High-order bytes 0-2 are zero Low-order byte: subpool number
		8,13	Base registers for IEAVGM00

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEAVPRT0 (VSS) (Cont'd)	Normal Exit	0	Address of TCB that owns LSQA causing return code 20
		15	Return Code — Meaning 0 — Region successfully allocated or freed 4 — Insufficient space available to satisfy the region request 8 — Invalid request 12 — Insufficient number of contiguous pages available to satisfy the V=R region request 16 — Fixed SQA and LSQA pages have reduced the available V=R eligible region so that there is not enough real storage to honor the request 20 — Specific V=V region request could not be satisfied because there is an LSQA within the requested region boundaries
		0-14	Saved if branch entry
	ABTERM	1	Error code X'20A' - Some allocated space still exists in the region to be freed
IEAVTEST (TS) (in TESTAUTH)	(Upon entry)	0	Authorization code if supplied; otherwise negative
		1	Function code
		4	Address of TCB or 0 (current TCB will be used)
	Caller	0-14	Unchanged
		15	Return Code — Meaning X'00' — Task authorized X'04' — Task not authorized X'08' — Specified values not found in matrix
IEAVVMSR (CS)	(Upon entry)	0	First four characters of entry-point name
		1	Last four characters of entry-point name
		3	Address of CVT
	Caller (BR 14)	0	Address of IPDE
		1-6	Unchanged
		7	Base address of contents supervision
		10-15	Unchanged
	Caller (BR 14 + 4)	0-6	Unchanged
		7	Base address of contents supervision
		10-15	Unchanged
IEA0AB00 (T) (ABTERM Mainline)	(Upon entry)	0	Address of TCB to be abnormally terminated
		1	Codes: Bit — Set — Meaning 0 — 1 — Dump should be taken 1 — 1 — Terminate the job step 2-7 — 0 8-19 — User error code 20-31 — System error code
	Caller	0-15	Unchanged
	Dispatcher	14	Address of dispatcher

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEA0AB00 (T) (Cont'd)	PAGEHCOK (Paging Supervisor)	0 1	Address of TCB for paging task Error code X'04'
	Type-1 Exit	15,0,1 14	Contents stored in SVC FLIH save area Address of Type-1 Exit routine
IEA0AB01 (T) (ABTERM alternate entry)	(Upon entry)	1 4	System error code Address of TCB to be scheduled for abnormal termination
	IEA0AB00	0 1 2-15	Address of TCB to be scheduled for abnormal termination Dump option and error code Unchanged
IEA0DS (TS) (in Dis-patcher)	(Upon entry)	0-15	All registers irrelevant
	Dispatched Task	0-15	Registers as they were in the TCB save area
IEA0DS1 (TS) (in Dis-patcher)	(Upon entry)	1	Return Code Meaning X'00' Select a task to set nondispatchable X'04' Select a task to set dispatchable
	Paging Supervisor	0 15	Address of selected TCB, or 0 if no action was taken or the TSO driver was called. Meaningful only if the return code is X'00'. Return Code Meaning X'00' Corrective action taken X'04' No action possible
IEA0DS02 (TS) (in Task Switch)	(Upon entry)	10 11	Address of input TCB Entry-point address of IEA0DS02
	Caller	0-10, 12-15	Unchanged
IEA0DS2 (TS) (in Dis-patcher	(Upon entry)	14 15	Return address Entry-point address of IEA0DS2
	Paging Supervisor	1 15	Address of selected job-step TCB if return code is X'00'; otherwise unpredictable Return Code Meaning X'00' Job-step TCB selected X'04' No selection possible
IEA0EF00 (TS) (in Stage 2 Exit Effector)	(Upon entry)	1	Address of IQE, RQE, or SQE IQE - complemented address RQE - true address, high-order byte is X'00' SQE - true address, high-order byte is X'40'
	Caller	1 0,2-9, 11-15	IQE, RQE, or SQE address in true form Unchanged
IEA0EF03 (TS) (in Stage 3 Exit Effector)	(Upon entry)	14	Base register for the dispatcher
	Dispatcher	14	Unchanged
IEA0EQ01 (TS) (in ENQ/DEQ	(Upon entry)	4	Address of TCB to be checked
	Caller	4,5,14	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEA0PL00 (T) (ABTERM Prologue)	(Upon entry)	0-15	Irrelevant
	IECCPL00 (IOS Program Interruption Handler)	3	Address of CVT
		4	Address of TCB
		5	Address of top RB
		8	X'00' - EXCP SVC X'0F' - ERREXCP SVC X'5C' - TSO EXCP SVC X'72' EXCPVR SVC
IEA0PT01 (TS) (in POST)	(Upon entry)	10	Completion code
		11	ECB address Byte 0 - X'00' = normal POST Byte 0 - X'80' = interregion POST
		12	TCB address of task being posted
		13	TJID (for TSO requests only)
	Caller	0-9,14	Unchanged
IEA0PT02 (TS) (in POST)	(Upon entry)	10	POST code supplied by caller
		11	ECB address
		12	TCB address of task being posted
	Caller	0-9,14	Unchanged
IEA0TI00 (TMS)	(Upon entry)	2	Return address
	External FLIH	2	Unchanged
IEA0VL00 (TS) (in Validity Check)	(Upon entry)	7	Input address; high-order byte 0
		8	Entry-point address of IEA0VL00
		9	TCB address or 0
		10	Return address
	Caller	9	TCB address (if not already supplied)
		0-8, 10-15	Unchanged
IEA0VL01 (TS) and IEA0VL01+4 (TS) (in Validity Check)	(Upon entry)	1	Input address; high-order byte 0
		2	Entry-point address of IEA0VL01
		3	Address of CVT
		4	Address of TCB
		12	Return address
	Caller	0-15	Unchanged
IEA0VL02 (TS) (in Validity check)	(Upon entry)	7	Input address; high-order byte 0
		8	Entry-point address of IEA0VL02
		9	Return address
	Caller	10	Return Code — Meaning X'00' — Valid address, in real storage X'04' — Valid address, not in real storage X'08' — Invalid segment X'0C' — Invalid page
		0-9, 11-15	Unchanged

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IEA0XE00 (TS) (in Type-1 Exit Routine)	(Upon entry)	0-15	Registers same as at completion of Type-1 SVC routine
	Caller	0,1,15 2-14	Contents at time of exit from SVC routine Restored to contents at time SVC was issued
	Dispatcher	0-15	Registers in TCBGRS are same as registers at exit to caller
IECXTLER (TS) (in Stage 3 Exit Effector	(Upon entry)	13	Binary code identifying the next phase of an error routine
	Dispatcher	0-15	All registers unpredictable
IEWFBOSV (CS)	(Upon entry)	3 7 8 9	Address of BLDL/Fetch work area Address of the DCB used when loading the overlay segment Address of note list Overlay segment number of the overlay segment to be loaded
	Caller	15	Return Code Meaning 0 Successful load 13 Invalid record type encountered 14 Invalid address encountered 15 Permanent I/O error
IEWMSEPT (CS)	(Upon entry)	5 7 9 10 13	Virtual storage address of the PDS DE for the load module Virtual storage address of an open DCB to be used for loading the module Address of the CDE (complement form) Subpool number used when obtaining virtual storage for the load module Virtual storage address of the BLDL/Fetch work area if return code is successful
	Caller	12 15	On successful return contains relocated entry-point address Return Code Meaning 0 Successful load 13 Invalid record type encountered 15 Permanent I/O error
IEWSZOVR (CS) (Overlay Supervisor)	(Upon entry)	1 2 6 8 9 10 12	ENTAB entry address of requested overlay segment Contains zero for SEGLD, positive for SEGWT, and negative for CALL or branch Address of SVRB Address of CVT Overlay segment number Contains zero Address of SEGTAB
	Caller	15	Return code
	IEWFBOSV		See registers upon entry for IEWFBOSV.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC0001C (T) (ABEND Initialization phase)	(Upon entry)	1	ABEND completion code if not entered from ABTERM
		3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	STAE	3-5	Unchanged
IGC00060 (T) (STA Services)	(Upon entry)	0	Return Code Meaning X'00' Create request X'04' Cancel request X'08' Overlay request
		1	Address of two-word parameter list if STAE or STAR request; three-word parameter list if STAI request
		3	Address of CVT
		4	Address of TCB for task issuing SVC 60
		5	Address of SVRB created for SVC 60 interruption
	Caller	15	Return Code Meaning X'00' Successful completion X'04' Unable to obtain storage for SCB X'08' User attempted to cancel or modify a nonexisting SCB; user issued a STAE macro in a STA user's exit routine; attempting to overlay or cancel a STAI SCB; attempting to cancel a STAR; issuing an invalid STAR overlay request X'0C' Invalid parameter list address; invalid exit or data parameter list address; STAI not issued by ATTACH; STAI/STAR request with an exit address specified as zero X'10' User attempted to cancel or overlay an SCB for another RB
IGC001 (TS) (in WAIT)	(Upon entry)	0	Number of events to be waited upon
		1	True value: Address of single ECB Complemented value: Address of ECB list
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address of WAIT routine
		14	Return address (SVC 3)
	ABEND	1	ABEND Code Meaning X'101' Number of events exceeds the number of ECBs X'201' ECB address is invalid X'301' An attempt was made to set the wait bit in an ECB that was already waiting
	Caller	2-14	Restored by the Exit routine (SVC 3)
IGC002 (TS) (in POST)	(Upon entry)	0	POST code supplied by caller
		1	ECB address (high-order byte = X'00') or parameter list address (high-order byte = X'80')
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address of POST routine
		14	Return address (SVC 3)

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC002 (TS) (Cont'd)	ABEND	1	ABEND Code Meaning X'102' Invalid ECB X'202' Invalid RB
	Caller	0-14	Restored by Exit routine (SVC 3)
IGC002+6 (TS) (in POST)	(Upon entry)	0 1 3 4	POST code supplied by caller ECB address (byte 0 must be 0) Address of CVT Address of TCB of task being posted
	Caller	0-9,14	Unchanged
IGC003 (TS) (in Exit)	(Upon entry)	3 4 5	Address of CVT Address of current TCB Address of current RB
	Dispatcher	0-15	All registers irrelevant
IGC004 (VSS) (S-Type GETMAIN entry point)	(Upon entry)	1 3 4 5 13 14	Address of parameter list Address of CVT Address of current TCB Address of top RB on queue Address of the ABTERM routine Address of the Exit routine
	GERROR	5	Error code
	GMCOMMON	1 4 10 11 12	Address of parameter list Address of TCB Number of bytes requested or address of length list Address of area list Subpool number
IGC005 (VSS) (S-Type FREEMAIN entry point)	(Upon entry)	1 3 4 5 13 14	Address of parameter list Address of CVT Address of current TCB Address of top RB on queue Address of ABTERM routine Address of Exit routine
	GERROR	5	Error code
	FMCOMMON	1 4 5 6 8 11 12 13	Address of parameter list Address of TCB X'0D' Byte 0 = 0 Byte 1 = X'F0' Byte 2 = X'05' Byte 3 - Key and mode Base register for IEAVGM00 Address of area to be freed, or list of addresses to be freed (for normal requests) Address of two-word parameter list: first word contains address and second word contains length to be freed (for variable requests) Subpool number Base register for IEAVGM00 + 4096

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC006 (CS) (LINK)	(Upon entry)	3	Address of CVT
		4	Address of TCB
		5	Address of RB
		15	Address of user parameter list
	CDEMERGE CDQUECTL CDSETUP		See register contents upon entry for these entry points elsewhere in this table.
IGC007 (CS) (XCTL)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
		15	Address of parameter list
	CDADVANS		See CDADVANS register contents upon entry
	ERRORTAB		See ERRORTAB register contents upon entry
	Exit	0-1	Same contents as when XCTL was issued
		2-14	Unreliable (will be restored by EXIT)
		15	Address of module's entry-point name
IGC008 (CS) (LOAD)	(Upon entry)	0	Address of entry-point name or PDS DE
		1	Address of DCB
		3	Address of CVT
		4	Address of TCB
		5	Address of SVRB
	CDCONTRL CDEMERGE CDQUECTL		See register contents upon entry for these entry points elsewhere in this table.
IGC009 (CS) (DELETE)	(Upon entry)	0	Address of entry-point name
		3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
	Caller	0-1	Unchanged
		2-14	Unpredictable (restored by SVC EXIT)
		15	Return Code: 0 — Meaning: DELETE successful; 4 — Module not found
IGC010 (VSS) (R-Type GETMAIN and FREEMAIN entry point)	(Upon entry)	0	High-order byte: subpool number
		1	Negative value if GETMAIN Address of storage to be freed if FREEMAIN 0 if entire subpool is to be freed
		3	Address of CVT
		4	Address of current TCB
		5	Address of top RB on queue
		13	Address of ABTERM routine
		14	Address of the Type 1 SVC exit handler

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC010 (VSS) (Cont'd)	FMCOMMON	1	Address to be freed, or zero if entire subpool is to be freed
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0 Byte 1 = X'F0' Byte 2 - SVC number Byte 3 - Key and mode
		8	Base register for IEAVGM00
		10	Length to be freed, or zero if entire subpool is to be freed
		12	Subpool number
		13	Base register for IEAVGM00 + 4096
	GMCOMMON	1	Address of parameter list
		4	Address of TCB
		10	Number of bytes requested or address of length list
		11	Address of area list
		12	Subpool number
IGC0101C (T) (ABEND Open phase)	(Upon entry)	2	Address of TIOT entry for the dump data set
		3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
		6	Address of job-step TCB
	DMPHASE	3-5	Unchanged
		8	Address of DCB
IGC011 (TMS)	(Upon entry)	0	Address of an 8-byte, user-specified area if MIC specified
		1	Contains one of the following parameters: 0-TU specified 1-BIN specified 2-DEC specified 3-MIC specified
		3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
	Caller	0	Local time of day in timer unit, binary, or decimal format Zero if MIC specified Zero if a request is issued prior to the setting of the date
		1	Date in packed decimal (00YYDDDF) X'F' if a request is issued prior to the setting of the date
		15	One of the following return codes for MIC requests: 0 - The time of day has been placed in the address specified in register 0 4 - The address in register 0 is invalid
IGC011 (TMS) (branch entry for TSIP)	(Upon entry)	1	Any negative value
		3	Address of CVT
	Caller	0	Time in timer units

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC012 (CS) (SYNCH)	(Upon entry)	0	Code and address of SCB for STAE
		3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
		15	Entry-point address of EXIT routine
	THRUX		See THRUX register contents upon entry
IGC014 (TS) (in SPIE)	(Upon entry)	1	Address of PICA (program interruption control area)
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address of SPIE routine
	ABEND	1	ABEND Code / Meaning X'10E' Invalid PICA address X'20E' Invalid PIE address X'30E' Unauthorized user requesting interruption code
	Caller	1	Address of previous PICA, or 0 if first call to SPIE
		2-14	Restored by Exit routine (SVC 3)
IGC0201C (T) (ABEND Close phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	HOUSKEEP	3-5	Unchanged
	IEA0DS (Dispatcher)	0-15	Irrelevant
IGC0301C (T) (ABEND Must-Complete phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
		6	Address of job-step TCB
	IGC0001C	3-5	Unchanged
	IGC1001C	3-5	Unchanged
	IGC1301C	3-5	Unchanged
IGC037 (CS) (Overlay Supervisor)	(Upon entry)	0	Contains zero for SEGLD, nonzero for SEGWT
		1	ENTAB entry address of requested overlay segment
		3	Address of CVT
		5	Address of SVRB
	Exit		All registers same as when SVC was issued.
	IEWSZ0VR		See IEWSZ0VR register contents upon entry
IGC040 (TS) (in EXTRACT)	(Upon entry)	1	Address of parameter list
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address of EXTRACT routine

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC040 (TS) (Cont'd)	ABEND	1	ABEND Code — Meaning X'128' — Invalid answer area address X'228' — Invalid input parameter list X'328' — Invalid subtask TCB address
	Caller	2-14	Restored by Exit routine (SVC 3)
IGC040+8 (TS) (in EXTRACT)	(Upon entry)	1 3 4 5	Address of parameter list Address of CVT Address of TCB Address of RB
	ABEND	1	ABEND Code — Meaning X'128' — Invalid answer area address X'228' — Invalid input parameter list X'328' — Invalid subtask TCB address
	Caller	3-4,14	Unchanged
IGC0401C (T) (ABEND Close phase)	(Upon entry)	3 4 5	Address of CVT Address of current TCB Address of ABEND SVRB (current RB)
	IGC2201C	3-5	Unchanged
IGC041 (CS) (IDENTIFY)	(Upon entry)	0 1 3 4 5	Address of eight-character symbolic name, or zero Address of entry-point name, or address of parameter list Address of CVT Address of current TCB Address of current RB
	Caller (via Exit)	15	Completion Code — Meaning 0 — Successful completion 4 — Entry-point name and address already exist 8 — Entry-point name duplicates the name of a load module currently available; entry point was not added 12 — Entry-point address is not within an eligible load module; entry point was not added 16 — Issued by asynchronous exit routine; entry point was not added 20 — An IDENTIFY macro instruction was previously issued using the same entry-point name but a different address; this request was ignored
	MAJORCDE		See MAJORCDE register contents upon entry

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC042 (TS) (in ATTACH)	(Upon entry)	1	Address of problem-program parameter list
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
	ABEND	1	ABEND Code — Meaning X'12A' — Attempt to give an owned or shared subpool X'22A' — Attempt to give or share a supervisor subpool X'32A' — Attempt to give JPAQ while it contained CDEs whose use count was not 0 X'42A' — Invalid ECB address X'52A' — Insufficient storage to propagate an SCB X'62A' — Invalid parameter list
	Caller via Dispatcher	0-13	User registers 0-13 are restored from TCBGRS by the dispatcher
		14	Entry-point address of the Dispatcher
		15	Contains 0 for successful completion
	Caller	0	Contains 0
		1	Address of problem-program parameter list
		2-14	Restored by Exit routine (SVC 3)
		15	Return Code — Meaning X'04' — ATTACH issued in STAE exit; no subtask created X'08' — Insufficient storage to schedule STAE exit; no subtask created X'0C' — The exit routine or parameter list for STAI operand is invalid; no subtask has been created X'10' — Insufficient storage for propagation of STAI; no subtask created X'14' — Attempt to attach a job-step task by a non-job-step task; no subtask created X'18' — Attempt to attach a job-step task when existing subtasks are not job-step tasks; or attempt to attach a non-job-step task when existing subtasks are job-step tasks; no subtask created X'1C' — ATTACH with LSQA failed; no subtask created

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC043 (TS) (in Stage 1 Exit Effector)	(Upon entry)	0	Entry-point address for specified exit routine
		1	Work area size and option bits for initializing request block: Bits 0-2 - '010' = IRB - '011' = TIRB Bits 3-4 - always 0 Bit 5 - 0 = key 0 - 1 = non-key 0 Bit 6 - 0 = supervisor - 1 = problem program Bit 7 - 0 = no save area - 1 = save area Bit 8 - enable/disable; used with Bit 6: Both 0 = supervisor state, disabled Bit 6 = 0, Bit 8 = 1 = supervisor state, enabled Bit 6 = 1, Bit 8 = 0 = problem state, enabled Both 1 = problem state, disabled Bits 9-10 - always 0 Bit 11 - 0 = do not free IQE at exit - 1 = free IQE at exit Bits 12-13- 00 = SIRB, do not queue RQEs - 01 = IRB, queue RQEs - 10 = IRB/TIRB, do not queue IQE/SQE - 11 = IRB, queue IQEs Bit 14 - 0 = RB is not dynamic - 1 = RB is dynamic Bit 15 - always 0
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
	Caller	1	Address of new request block (IRB/TIRB)
		2-14	Restored by Type-1 Exit routine for SVC entries
IGC043BR (TS) (in Stage 1 Exit Effector)	(Upon entry)	0,1,3-5, 14	Same as entry registers to IGC043
	Caller	1	Address of new request block (IRB/TIRB)
		2-5,10, 11,13,14	Unchanged
IGC044 (TS) (in CHAP)	(Upon entry)	0	Value by which the dispatching priority is to be changed
		1	If 0, priority of caller's TCB is to be changed. If not 0, contains the address of a fullword containing the address of the TCB to be changed
		3	Address of CVT
		4	Address of caller's TCB
		5	Address of CHAP routine's SVRB
		6	Entry-point address of CHAP routine
		14	Return address (SVC 3)
	ABEND	1	ABEND Code — Meaning X'12C' — TCB address word failed to specify a subtask of the caller, or the designated subtask is already complete X'22C' — Address of the TCB word is invalid
	Caller	2-14	Restored by Exit routine (SVC 3)

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC044+12 (TS) (in CHAP)	(Upon entry)	0	Value by which the dispatching priority is to be changed
		3	Address of CVT
		4	Address of TCB to be changed
		14	Return address
	Caller	3,4,14	Unchanged
IGC045 (CS) (Overlay Supervisor)	(Upon entry)	3	Address of CVT
		5	Address of current SVRB
		15	ENTAB entry address of requested overlay segment
	Exit		All registers same as when SVC was issued
	IEWSZ0VR		See IEWSZ0VR register contents upon entry
IGC046 (TMS)	(Upon entry)	0	Address of the user-specified area if MIC specified
		1	The following bit settings: Bits 0-29 = 0 Bit 30 = 0 TU specified = 1 MIC specified Bit 31 = 0 CANCEL not specified = 1 CANCEL specified
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
	Caller	0	Number of timer units (TU) remaining in the interval (1 TU = 26:04166 microseconds) Zero if either the interval has expired or no interval was specified Zero if MIC specified
		15	Contains one of the following return codes if MIC specified: 0 - The remaining time has been placed in the specified area 4 - The specified address area is invalid
IGC047 (TMS)	(Upon entry)	0	The bit settings in byte 0: .000.... TUINTVL specified .001.... BINTVL specified .010.... MICVL specified .011.... DINTVL specified .111.... TOD specified .....000 TASK specified .....001 WAIT specified .....011 REAL specified Bytes 2-3 Zero or the address of a user-specfied exit routine
		1	Byte 0 reserved Bytes 2-4 contain: • The address of an eight-byte area containing the time value for DINTVL, MICVL, and TOD requests • The address of a four-byte area containing the time value for BINTVL and TVINTVL requests
		3	Address of CVT
		4	Address of TCB
		5	Address of RB

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC047 (TMS) (Cont'd)	Caller	0-15	Irrelevant
	ABEND		Abnormal exit if STIMER program checks because the address supplied in register 1 was invalid or the data area supplied for the TOD or DINTVL parameter cannot be converted with a CVB instruction after packing the supplied data.
IGC048 (TS) (in DEQ)	(Upon entry)	1 3 4 5 6 14	Address of parameter list Address of CVT Address of TCB Address of SVRB Entry-point address of DEQ routine Return address (SVC 3)
	ABEND	1	ABEND Code — Meaning X'130' — No QEL found X'230' — Invalid name length X'330' — RMC specified by a caller with non-zero key X'430' — Invalid parameter list X'530' — QEL did not have control of resource(s)
	Caller	2-14 15	Restored by Exit routine (SVC 3) Contains 0 if request handled successfully. Address of beginning of parameter list if RET = was specified and a nonzero return code is returned to the parameter list.
IGC056 (TS) (in ENQ/ RESERVE)	(Upon entry)	1 3 4 5 6 14	Address of parameter list Address of CVT Address of TCB Address of SVRB Entry-point address of ENQ/RESERVE Return address (SVC 3)
	ABEND	1	ABEND Code — Meaning X'138' — QEL already on queue for this task X'238' — Invalid name length X'338' — SMC, TCB, or ECB specified by caller with nonzero key X'438' — Invalid parameter list X'538' — Resource permanently unavailable
	Caller	2-14 15	Restored by Exit routine (SVC 3) Contains 0 if request handled successfully. Address of the beginning of parameter list if RET = HAVE, TEST, USE, CHNG, or ECB was specified and a nonzero return code is returned in the parameter list.
IGC062 (TS) (in DETACH)	(Upon entry)	1 3 4 5 6	Byte 0: X'00' = if subtask is to be abnormally terminated, do not honor its STAE exit X'80' = if subtask is to be abnormally terminated, honor its STAE exit Bytes 1-3 = address of a fullword containing the address of the TCB to be detached Address of CVT Address of caller's TCB Address of SVRB representing DETACH routine Entry-point address of IGC062

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC062 (TS) (Cont'd)	ABEND	1	ABEND Code / Meaning X'23E' — Invalid parameters have been supplied, or the task to be detached could not be found
	Caller	0-14	Restored by Exit routine (SVC 3)
		15	Return Code / Meaning X'00' — Successful completion X'04' — Incomplete subtask detached; STAE exit of subtask allowed X'08' — DETACH failed; subtask removed, but DETACH was unable to free the LSQA segment
(IGC079 (TS) (in STATUS)	(Upon entry)	0	Dispatchability settings requested: Bits 0-15 = primary mask (optional) Bits 16-31: Code 0 = reserved 1 = MC,STEP 2 = MC,SYSTEM 3 = ND,STEP 4 = ND,SYSTEM 5 = ND,TCB (includes subtasks) 6 = STOP 7 = START 8 = SD,STEP 9 = SD,SYSTEM 10 = SD,TCB (includes subtasks) 11 = SD,TCB address,E 12 = ND,TCB address,E
		1	Bit 0: 0 = set 1 = reset Bits 1-7 = 0 Bits 8-31 = Address of TCB (optional)
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address of STATUS routine
		14	Return address (Type-1 Exit routine)
		15	Secondary mask (optional)
	ABEND via ABTERM	1	ABEND Code / Meaning X'14F' — Invalid call
	Caller	2-14	Restored by Type-1 Exit routine
		15	Return Code / Meaning X'00' — Normal completion X'04' — START/STOP failed; specified task not a subtask of the caller's task
IGC07902 (TS) (in STATUS)	(Upon entry)	0,1	Same as entry registers to IGC079
		13	Secondary mask (optional)
	Caller	0-14	Unchanged
		15	Contains 0 for normal completion

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC0B01C (T) IGC0C01C (ASIR)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of current RB (ABEND SVRB)
	IGC1001C	0-15	Irrelevant
	User's exit routine via SYNCH (SVC 15)	0	I/O codes
		1	Address of work area or ABEND completion code
		2	User's exit parameter list if there is no work area
		13	Address of supervisor save area if there is no work area
		14	Address of supervisor linkage instruction
		15	Address of user's exit routine
	User's retry routine via Exit (SVC 3)	0	Work area code: 0=work area was obtained; 12=no work area
		1	Work area address or ABEND code
		2	Address of first I/O block on the restore chain (if there is no work area)
		14	Supervisor linkage instruction address
		15	Address of user's retry routine
IGC1001C (T) (ABEND Initial Housekeeping phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	ABRECUR	3-5	Unchanged
	IEA0DS (Dispatcher)	0-15	Irrelevant
	IGC0301C	3-5	Unchanged
		6	Address of job-step TCB
	IGC1301C	3-5	Unchanged
	MAINLINE	3-5	Unchanged
IGC107 (TS) (in MODESET)	(Upon entry)	1	Parameter list
			Bits 0-7: OR mask
			Bits 8-15: AND mask
			Bits 16-23: Must equal 0
			Bit 24: Use OR mask if 1
			Bit 25: Use AND mask if 1
			Bits 26-27:
			00 No action
			01 Invalid
			10 Set nonzero key in SVCOPSW from current TCB
			11 Set zero key in SVCOPSW
			Bits 28-29:
			00 No action
			01 Turn on state bit in SVCOPSW
			10 Invalid
			11 Turn off state bit in SVCOPSW
			Bits 30-31:
			00 No action
			01 Invalid
			10 Enable I/O, external interruptions
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC107 (TS) (Cont'd)	Caller	1	Contains inverse of specified operation if SYS-MASK was coded and operation was successful
		2-14	Restored by Type-1 Exit routine
		15	Return Code / Meaning X'00' Successful operation X'04' Invalid request X'08' User not authorized for requested function
IGC1101C (T) (ABEND recursion entry point -- module IEAVTM01)	(Upon entry)	4	Address of current TCB
	ABEND	0-15	Unchanged
IGC112 (PS)	(Upon entry)	0	Address of beginning of virtual area to be released
		1	Address of end of virtual area to be released plus 1 byte
		3	Address of CVT
		4	Address of requester's TCB
		5	Address of RB
		6	Entry-point address
	Type-1 Exit Routine	15	Return Code / Meaning X'00' Successful X'04' Page didn't exist or was protected
IGC113 (PS)	(Upon entry)	0	ECB address or 0 for FREE requests
		1	Address of VSL or first half of VSL entry (for register-form requests)
		2	Second half of VSL entry (for register-form requests)
		3	Address of CVT
		4	Address of TCB
	Type-1 Exit Routine	15	Return code (see table in Diagram 5.21 for FIX or LOAD) 0 for FREE
IGC115 (PS)	(Upon entry)	1	Address of swap communications table
		3	Address of CVT
		4	Address of requester's TCB
		5	Address of RB
	Type-1 Exit Routine	2-14	Unchanged
		15	Return Code / Meaning X'00' Request proceeding X'04' Request rejected
IGC119 (TS) (in TESTAUTH)	(Upon entry)	0	Authorization code if supplied, otherwise negative
		1	Function code
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Entry-point address
	Caller	0-13	Restored by Type-1 Exit routine
		14	Unchanged
		15	Return Code / Meaning X'00' Task authorized X'04' Task not authorized X'08' Specified values not found in matrix

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
IGC1201C (T) (ABEND recursion entry point -- module IEAVTM02)	(Upon entry)	4	Address of current TCB
	ABEND	0-15	Unchanged
IGC1301C (T) (ABEND Critical Error phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	IEA0DS (Dispatcher)	0-15	Irrelevant
IGC1401C (T) (ABEND recursion entry point -- module IEAVTM04)	(Upon entry)	4	Address of current TCB
	ABEND	0-15	Unchanged
IGC2001C (T) (Mainline ABEND)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	IGC0101C	2	Address of TIOT entry for the dump data set
		3-5	Unchanged
		6	Address of job-step TCB
	IGC0201C	3-5	Unchanged
IGC2101C (T) (ABEND MSGPHASE subroutine)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of RB
	IGC2001C	0,2-14	Unchanged
IGC2201C (T) (ABEND Close phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	HOUSKEEP	3-5	Unchanged
	IEA0DS (Dispatcher)	0-15	Irrelevant
IGC2301C (T) (ABEND Critical Error phase)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	IEA0DS (Dispatcher)	0-15	Irrelevant
IGC3301C (T) (ABEND recursion entry point -- module IEAVTM03)	(Upon entry)	4	Address of current TCB
	ABEND	0-15	Unchanged
LXPREFIX (CS)	(Upon entry)	0	Address of CVT
		4	Address of current TCB
		5	Address of current RB
		7	Base address of contents supervision
		15	Address of parameter list to be prefixed

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
LXPREFIX (CS) (Cont'd)	Caller (BR 14)	3-5	Unchanged
		7	Unchanged
		9	Address of entry-point name in RBESA
		10	Address of DCB, or zero
		14	Unchanged
LXREFER (CS)	(Upon entry)	1	Address of parameter list to be referenced
		2	Mask for ICM instruction indicating number of bytes and target register for reference
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
		13	Return address
		15	Error code if the parameter list fails the validity check
	Caller (BR 13 + 4)	0-15	Unchanged
	Caller (BR 13)	2-14	Unchanged
	ERRORTAB		See ERRORTAB register contents upon entry
*MAINLINE (T) (Mainline ABEND)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	IGC0101C	2	Address of TIOT entry for the dump data set
		3-5	Unchanged
		6	Address of job-step TCB
	IGC0201C	3-5	Unchanged
MAJORCDE (CS)	(Upon entry)	0	Contains zero
		1	Address of parameter list
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		13	Base address of contents supervision
	Caller (via Exit)	15	Completion Code — Meaning 24 — Parameter list is not on a fullword boundary, or invalid parameter list 28 — Extent list length is not positive, or a multiple of eight; extent address is not on a doubleword boundary; address is not addressable address is not in caller's region 32 — An extent address is not in subpool 0
MCTEST (T) (ABEND recursion entry point -- module IEAVTM00)	(Upon entry)	4	Address of current TCB
	ABEND	0-15	Unchanged

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
MRELEASA (VSS) MRELEASE	(Upon entry)	6	Number of bytes to be freed
		7	Address of PQE from which FBQE chain originates
		9	Address to be freed
		8,13	Base registers for IEAVGM00
	Caller	14	Unchanged
NOSAVE (TS) (in ATTACH)	(Upon entry)	5	Address of new subtask's TCB
		10	Address of new subtask's TCB
		11	Base register for ATTACH routine
	IEAQCS01	0	True form: Address of program Complemented form: Address of PDS DE
		1	Address of DCB
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		14	Address of IEAQCS01
PAGEHOOK (PS)	(Upon entry)	1	Entry code
	IEAPSER	0	Error code
PGMFETCH (CS)	(Upon entry)	3	Address of CVT
		4	Address of TCB
		5	Address of RB
		6	Address of BLDL/Fetch work area
		7	Base address of contents supervision
		10	Address of DCB
		11	Address of CDE for requested name
	CDEMERGE ERRORTAB		See register contents upon entry for these entry points elsewhere in this table.
PHOENIX (TS) (in System Error Task ABEND Recovery (STAR) routine)	(Upon entry)	0	Contains 0
		15	Entry-point address of PHOENIX
	Dispatcher	0-15	All registers irrelevant
PLUSCONT (CS) (in LINK)	(Upon entry)	0,1	Name of requested module
		3	Address of CVT
		4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
		8	Address of CDE queue to search
		9	Address of requested entry-point name
		10	Address of DCB (complement form)
		11	Address of CDE for requested name
	CDEMERGE CDQUECTL CDSETUP		See register contents upon entry for these entry points elsewhere in this table.
PRECOM (IS) (in Trace Routine)	Caller	10	Return address
		12	Address of next trace table entry

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
QCALLOC (VSS)	(Upon entry)	0	High-order byte: subpool number Low-order three bytes: number of bytes requested
		1	Negative if GETMAIN request Address of quickcell to be freed (in three low-order bytes) if FREEMAIN request
		3	Address of CVT
		4	Address of TCB
	Caller	1	Address of the allocated quickcell if GETMAIN request
	GERROR	5	Error code
	GCOMM4	1	Address of parameter list
		4	Address of TCB
		10	Number of bytes requested, or address of length list
		12	Subpool number
QCBRANCH (VSS) (R-Type GETMAIN or FREEMAIN for a quickcell)	(Upon entry)	0	High-order byte: subpool number Low-order three bytes: number of bytes requested
		1	Negative value if GETMAIN Length of quickcell if FREEMAIN
		3	Address of the CVT
		4	Address of the TCB for which storage is to be allocated or released
	QCALLOC	0,1	Unchanged
		3,4	Unchanged
		14	Unchanged
QCFREE (VSS)	(Upon entry)	0	High-order byte: subpool number Low-order three bytes: number of bytes to be freed
		1	Low-order three bytes: address of quickcell to be freed
		11	Address of quickcell descriptor block
	Caller	0-15	Restored
	GERROR	5	Error code
QELOCATE (VSS)	(Upon entry)	3	Address of DQE
		7	Highest address of area to be freed
		9	Return address
		10	Number of bytes to be freed
		11	Address to be freed
	Caller (FMCOMMON)	0	Upper boundary of FQE
		1	Address of previous FQE
		2	Address of FQE whose address is equal to or less than highest address of area being freed
		3	Lower boundary of FQE
	GERROR	5	Error code
RELOCATE (CS)	(Upon entry)	3	Return address
		7	Base address of contents supervision
		12	Address of major CDE
		14	Address of subject entry point (not relocated)
	Caller	0-13	Unchanged
		14	Relocated entry point

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
RERIG (CS)	(Upon entry)	7	Base address of contents supervision
	Caller (BR 14)	0-3	Unchanged
		4	Address of current TCB
		5	Address of current RB
		6-10	Unchanged
		11	Address of major CDE or minor CDE
		12	Address of major CDE if register 11 contains the address of a minor CDE, or same as register 11 if register 11 contains the address of a major CDE
		14-15	Unchanged
RETHRED (CS)	(Upon entry)	4	Address of TCB
		5	Address of RB
		7	Base address of contents supervision
		9	Address of entry-point name, or address of PDS DE
		10	Address of DCB
		11	Address of CDE to unhook
		13	Return address
	Caller	3-13	Unchanged
RMBRANCH (VSS) (R-Type GETMAIN and FREEMAIN branch entry point) RMBRAN1	(Upon entry)	0	High-order byte: subpool number Low-order three bytes: number of bytes requested zero if the request is to free an entire subpool
		1	Negative value for GETMAIN Address of storage to be freed if FREEMAIN Zero if entire subpool is to be freed
		3	Address of the CVT
		4	Address of TCB for which storage is being allocated or released
	GMCOMM1	1	Address of GETMAIN parameter list
		4	Address of TCB
		10	Number of bytes requested
		11	Address of area list
		12	Subpool number
	FMCOMM1	1	Starting address of area to be freed; zero if entire subpool is to be freed
		4	Address of TCB
		5	X'0D'
		6	Byte 0 = 0 Byte 1 = X'00' Byte 2 = SVC number Byte 3 = Key and mode
		8	Base register for IEAVGM00
		10	Length of area to be freed, or zero if entire subpool is to be freed
		12	Subpool number
		13	Base register for IEAVGM00
SATMAR (CS)	(Upon entry)	4	Address of current TCB
		5	Address of current RB
		7	Base address of contents supervision
		8	Address of CDE queue
		9	Address of entry-point name, or address of PDS DE
		10	Address of DCB
	ALIAS1 BUILDEL DEFOUND		See register contents upon entry for these entry points elsewhere in this table.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
SPFREL (VSS)	(Upon entry)	7	Address of area to be released
		15	Number of bytes to be released
	Caller	15	Zero
	GERROR	5	Error code
SPFRMAIN (VSS)	(Upon entry)	1	X'00' tc indicate subpool FREEMAIN
		4	Address of TCB for requesting task
		5	X'0D'
		10	X'00' to indicate subpool FREEMAIN
		12	Subpool number
	Caller	15	Zero
	GERROR	5	Error code
SRCHDIRC (CS)	(Upon entry)	0	First four characters of entry-point name
		1	Last four characters of entry-point name
		3	Address of CVT
		7	Base address of contents supervision
	Caller (BR 14)	0	Address of IPDE
		1-6	Unchanged
		7	Base address of contents supervision
		10-15	Unchanged
	Caller (BR 14 + 4)	0-6	Unchanged
		7	Base address of contents supervision
		10-15	Unchanged
SROUT (PS)	(Upon entry)	1	Address of root PCB
	Caller	3-7,14	Unchanged
*STAE (T) (ABEND Interface with ASIR)	(Upon entry)	3	Address of CVT
		4	Address of current TCB
		5	Address of ABEND SVRB (current RB)
	BYSTAE	3-5	Unchanged
	IGC0B01C	3-5	Unchanged
SUPRSTAR (TS) (in System Error Task ABEND Recovery (STAR) routine)	(Upon entry)	0	Code indicating status of active I/O at time of ABEND (not inspected by SUPRSTAR)
		13	Address of register save area (not inspected by SUPRSTAR)
	ASIR	0	Address of PHOENIX
		14	Unchanged
		15	Return Code: X'04' — Meaning: STAR retry to be called
THRUX (CS)	(Upon entry)	2	Address of SCB (special STAE scheduling interface)
		3	Address of CVT
		4	Address of current TCB
		5	Address of current RB
		7	Base address of contents supervision
		14	Address of entry-point name

* The ABEND routine has been divided into phases according to function. This entry point is not a true entry point; it is the first label in the associated phase.

ENTRY POINT	EXIT TO	REGISTER	CONTENTS
THRUX (CS) (Cont'd)	Exit	0	For SYNCH, contains the same information as when the SVC was issued For ASIR, contains flag byte in low byte For XCTL and LINK, unpredictable
		1	Unchanged
		15	Address of the entry-point name of the module to gain control
TRDISP (IS) (in Trace Routine)	(Upon entry)	10	Address to TRDISP
		11	Return address to the dispatcher
		12	Address of the new RB
		14	Address of the TCB
	Dispatcher	All	Unchanged
TREX (IS) (in Trace Routine)	(Upon entry)	0,1,15	Same as at the time of the external interruption
		10	Address of TREX
		11	Return address to the External FLIH
TRIO (IS) (in Trace Routine)	(Upon entry)	10	Address of TRIO
		11	Return address to the I/O FLIH
	I/O FLIH	All	Unchanged
TRNONPVT (VSS)	(Upon entry)	9	Return address
	Caller	3	Address of PVT
TRPI (IS) (in Trace Routine)	(Upon entry)	0,1,15	Same as at the time of the program interruption
		10	Address of TRPI
		11	Return address to the Program Interruption Handler
	Program Interruption Handler	All	Unchanged
TRSIO (IS) (in Trace Routine)	(Upon entry)	1	Address of 16-byte I/O request element related to the SIO
		6	Device address
		9	Condition code
		10	Address of TRSIO
		11	Return address to the I/O supervisor
	I/O Supervisor	All	Unchanged
TRSVC (IS) (in Trace Routine)	(Upon entry)	0,1,15	Same as at the time of the SVC interruption
		10	Address of TRSVC
		11	Return address to the SVC FLIH
TTRAN (CS)	(Upon entry)	4	Address of TCB
		5	Address of SVRB
		6	Address of BLDL/Fetch work area
		6	Address of BLDL/Fetch work area
		12	Address of the major CDE of the module just fetched
	PGMFETCH		See PGMFETCH register contents upon entry

CONTROL BLOCKS CROSS-REFERENCE TABLE

Listed in the following table are all the supervisor control blocks and other system control blocks used to address the supervisor control blocks.

Control Block	Pointed to by	Field	Displacement Hex.	Displacement Dec.
ABDAREA	-	-	-	-
ABDPL	-	-	-	-
APGCE	-	-	-	-
AQE	TCB	TCBAQE	9C	156
CDE	CVT	CVTQLPAQ	1BC	444
	LLE	LLECDPTA	5	5
	RB	RBCDE1	4C	76
CPQE	PVT	PVTCHPGQ	88	136
	SQ	SQ1CHPGA	9	9
		SQICHPGA	D	13
CTRLD	-	-	-	-
CVT	Fixed location in low storage	-	10	16
DQE	GOVRFLB	DQESQA	4	4
	SPQE	SPDQEAD	4	4
ECB	PDITE	IOBCECB	4	4
		IOBECBPB	14	20
	SEGTAB	SEGECB	10	16
	SPCT	SPCTECB	4	4
	TCB	TCBECB	90	144
		TCBQECBA	F0	240
ENTAB	-	-	-	-
EXLNL	-	-	-	-
FBQE	PQE	PQEFFBQE	0	0
		PQEBFBQE	4	4
FOE	TCB	TCBFOEA	F1	245
FQE	DQE	DQEFQEPTR	0	0
FTWORK	-	-	-	-
GOVRFLB	SCVT	SCVTMSSQ	6C	108

Control Block	Pointed to by	Field	Displacement Hex.	Dec.
INFOLIST	-	-	-	-
IQE	RB	RBIQE1	58	88
		RBNEXAV	A0	160
	TCB	TCBIQE	8D	141
IRB	IQE	IQEIRBA	9	9
LLE	TCB	TCBLLS	24	36
LPDE	CVT	CVTLPDIR	268	616
MB	-	-	-	-
PCB	CPQE	CPQPCBAD	8	8
	PCB	PCBRLP	D	13
	SCNTE	SCNFST	0	0
		SCNLST	4	4
PCBROOT	PCB	PCBRTP	8	8
	PVT	PVTSFXDQ	44	68
		PVTBFXDQ	4C	76
		PVTROOT	8C	140
		PVTSRQ	90	144
PDITE	PDT	PDTIOB	1D	29
PDTE	PVT	PVTPDT	98	152
PFTE	PFT	PFTFQPTR	6	6
		PFTBQPTR	8	8
	PVT	PVTAVFST	68	104
		PVTAVLCW	6A	106
		PVTHQ	6C	108
		PVTLHQ	6E	110
		PVTFAC1Q	70	112
		PVTLAC1Q	72	114
		PVTFAC2Q	74	116
		PVTLAC2Q	76	118
		PVTFAC3Q	78	120
		PVTLAC3Q	7A	122
		PVTFAC4Q	7C	124
		PVTLAC4Q	7E	126

Control Block	Pointed to by	Field	Displacement Hex.	Displacement Dec.
PGTE (PTE)	PCB	PCBPTE	15	21
	SGTE	SGTPTO	1	1
PICA	PIE	PIEPICAA	1	1
PIE	TCB	TCBPIE	5	5
PQE	GOVRFLB	PQEPTR	8	8
	TCB	TCBPQE	98	152
PVT	CVT	CVTPVTP	264	612
QCB	QEL	QEILQEIA	4	4
	SCVT	SCVTQCBO	14	20
QCBMIN	QCB	QMJMINOR	8	8
QCDBLK	DQE	DQEPTR	4	4
QEL	QCBMIN	QMNQELA	1	1
RB	CDE	CDERBPA	5	5
	QEL	QEISVRBA	C	12
	SCB	SCBOWNRA	C	12
	SDWA	SDWARBAD	58	88
	TCB	TCERBP	0	0
		TCBTIRB	D8	216
RQE	CVT	CVTIOQET	178	376
	IRB or SIRB	RBIQEA	58	88
	UCB	UCBRQESV	2A	42
SCB	TCB	TCBSTABB	A0	160
SCNTE	in PVT	at PVTALOCQ	A0	160
SCVT	CVT	CVTABEND	1C8	456
SDWA	-	-	-	-
SEGTAB	-	-	-	-
SGTE (STE)	CVT	CVTSEGA	27C	638
		CVTSEGB	280	640
SPCA	SPCT	SPCTSPCA	0	0
SPCANT	SPCA	SPCA2PTA	24	36
SPCAPTA	SPCA	SPCA1PTA	20	32
SPCT	PCBROOT	PCBRWRK2	10	16

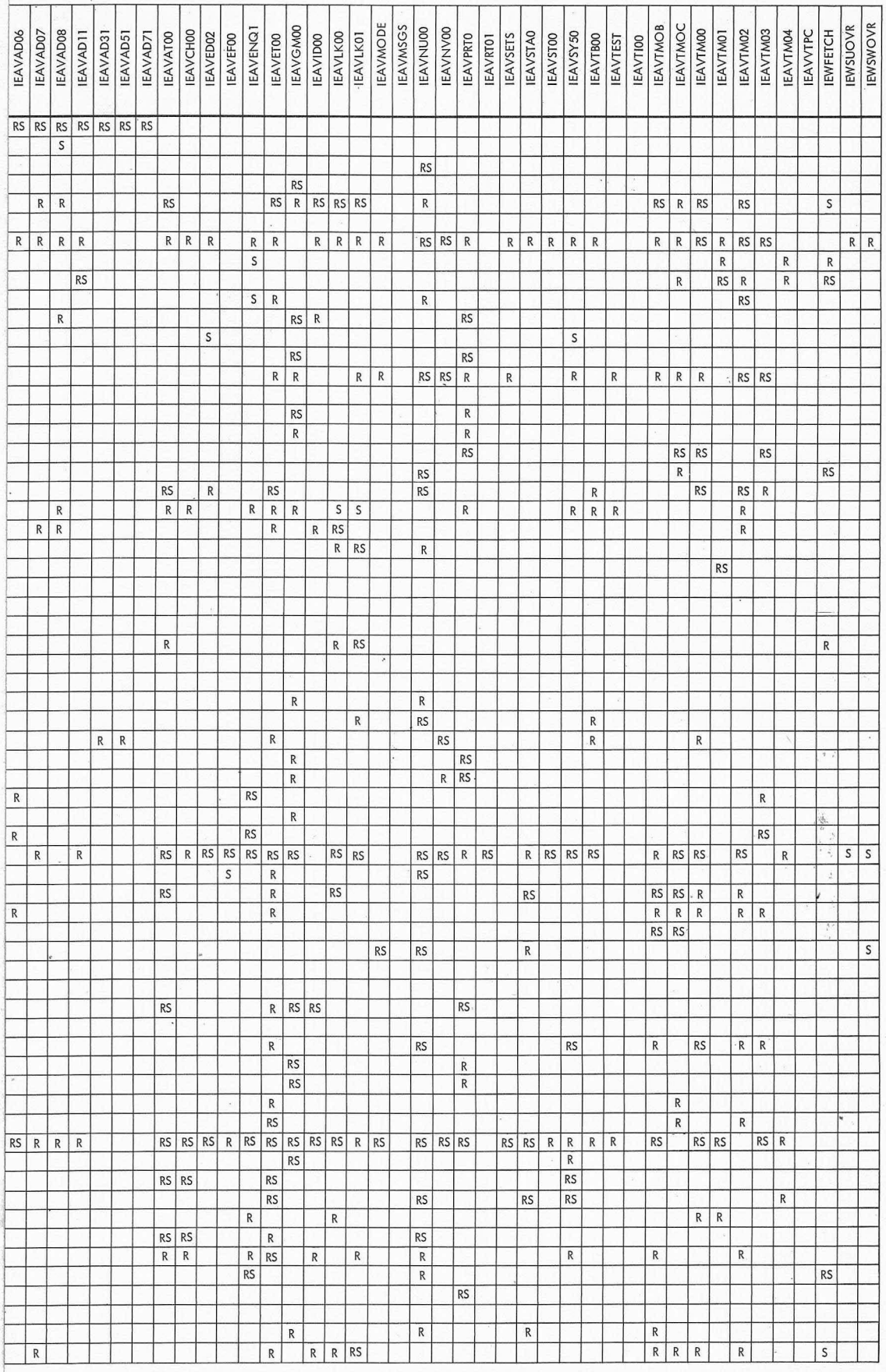
Control Block	Pointed to by	Field	Displacement Hex.	Displacement Dec.
SPCTE	in SPCT	at SPCTENTO	18	24
SPQE	TCB	TCBLSQAP	E0	224
		TCBMSS	19	25
SQ	CPQE	CPQSQBPT	4	4
	PDITE	PDIT1SQA	79	121
SQE	TIRB	RBSQEA	58	88
SWAB	SWAH	SWAHFRST	0	0
		SWAHLAST	4	4
SWAH	TCB	TCBSWA	F6	246
TCB	CVT	CVTTCBP	100	256
		CVTHEAD	1A0	416
		CVTSLID	275	629
	INFOLIST	INFTCB	0	0
	PCBROOT	PCBRTCB	0	0
	PFTE	PFTWHOSE	8	8
	PQE	PQETCB	10	16
	QEL	QELTCBA	8	8
	RQE	RQETCB	C	12
	SCB	SCBOWNRA	C	12
	SCVT	SCVTCTCB	70	112
	SPCT	SCVTETCB	74	116
		SPCTLTCB	10	16
	SQE	SQETCBA	4	4
	TQE	TQETCBA	0	0
	TSCE	TSFIRSTA	0	0
		TSLASTA	4	4
		TSNEXTA	8	8
TPC	CVT	CVTTPC	158	344
TQE	SCVT	SCVTTQE	8C	140
	TCB	TCBTME	78	120
	TPC	TTIMERQ	8	8
		CTIMERQ	C	12

Control Block	Pointed to by	Field	Displacement Hex.	Displacement Dec.
TSCE	CVT	CVTTSCE	1D8	472
TSOCVT	CVT	CVTTSCVB	1E5	485
UCB	RQE	RQEUCB	2	2
VALMAP+RRV	follows dummy PQE TCB	TCBPQE	98	152
VSL	-	-	-	-
XPTE	PCB	PCBXPT	11	17
	follows PGTEs SGTE	SGTPTO	1	1
XTLST	CDE	CDVLMJPA	14	20

CONTROL BLOCKS REFERENCED/SET MATRIX

The matrix on the following page shows all the modules in the supervisor (in columns across the top) and control blocks that the supervisor references or sets (in rows along the side). The letter R in a box means that a field in the control block on that row is referenced by the module in that column. The letter S in a box means that a field in the control block on that row is set by the module in that column.

CONTROL BLOCK \ MODULE	IEAPALOC	IEAPAUXS	IEAPCB	IEAPCLR	IEAPCSEC	IEAPFP	IEAPIOP	IEAPIOS	IEAPIX	IEAPLSQA	IEAPMIGR	IEAPPCIA	IEAPQS	IEAPRPLS	IEAPSER	IEAPSI	IEAPSQA	IEAPSSVC	IEAPSWAP	IEAPTCD	IEAPTERM	IEAPTRV	IEAPVEQR	IEAQTRCE	IEAVAB00	IEAVAD0A	IEAVAD0B	IEAVAD0C	IEAVAD0D	IEAVAD00	IEAVAD01	IEAVAD02	IEAVAD03	IEAVAD05
ABDAREA																									RS	RS	RS	RS		RS	RS	RS	RS
ABDPL																											S						
APGCE																																	
AQE																																	
CDE																									R	R		R	R		RS	
CPQE								RS				RS																					
CVT	R		R	RS		R	R		RS	R		R	R	R	R	RS	R	R	R	R	R	R	R	R	R	R	R		RS	R			R
DCB																													RS	RS			
DEB																																	
DECB																													R			R	
DQE										RS															R			R	R				R
ECB																													RS				
FBQE																																	R
FLC				R					R															RS	R					R			R
FOE																RS					RS												
FQE										S						RS												R	R				R
GOVRFLB				R						R															R				R				
INF																																	
IOB												R																	RS				
IQE																																	R
JSCB																											R		R				
LLE																										R			R			R	
LPDE																									RS								
MB																																	
PCB	RS	RS	RS	RS	R	RS	RS	RS	RS		RS	RS		RS		RS	R	RS	RS		RS		RS										
PCBROOT	RS						RS							RS		RS		RS	RS		RS		RS										
PDITE	RS							RS				RS																					
PDS																																	
PDTE	R	RS						RS			R	R							R														
PFTE	RS			RS	RS		RS							RS		RS	RS		RS		RS	R	RS										
PGTE (PTE)	RS			RS			S		R		R			S		R	S		RS	S	S		RS						R				
PICA																																	
PIE																																	
PQE										R																		R	R				R
PVT	RS	RS	RS	RS	R		RS	RS	R		RS	RS	R	RS	R	RS	RS	RS	RS	R	RS	R	RS						R				
QCB																																	
QCDBLK										RS																							
QEL																																	
RB (IRB, PRB, SVRB, SIRB, TIRB)			RS				RS		RS	R			RS								RS			R	RS	R	R			R	S	R	R
RQE																								R									
SCB																																	
SCVT				R																					R	R				R	R		
SDWA																																	
SGTE (STE)						R													RS	S													
SPCA																			RS														
SPCT																		R	RS														
SPQE										RS																		R	R				R
SQ								RS																									
SQE																								RS									R
SWAB																	R		R		RS									R			
SWAH										RS							RS		R		R							R	R				
TAIE																																	
TAXE																																	
TCB	R		R						R	RS	RS		R	R	R	R	RS		RS		RS		R	RS	RS	RS	R	R	RS	RS	RS	R	R	RS
TCT									RS					RS		RS			RS														
TJB																																	
TQE														RS										R									
TIOT															R																R	R	
TSCE																																	
TSCVT																																	
UCB																													R				
VALMAP+RRV																																	
VSL				R												RS					RS												
XPTE	RS	RS	RS	RS			RS	RS			RS	RS				RS			RS	S	RS							R					
XTLST																									R	R		R	R				


IEAVAD06
IEAVAD07
IEAVAD08
IEAVAD11
IEAVAD31
IEAVAD51
IEAVAD71
IEAVAT00
IEAVCH00
IEAVED02
IEAVEF00
IEAVENQ1
IEAVET00
IEAVGM00
IEAVID00
IEAVLK00
IEAVLK01
IEAVMODE
IEAVMSGS
IEAVNU00
IEAVNV00
IEAVPRT0
IEAVRT01
IEAVSETS
IEAVSTA0
IEAVST00
IEAVSY50
IEAVTB00
IEAVTEST
IEAVTI00
IEAVTMOB
IEAVTMOC
IEAVTM00
IEAVTM01
IEAVTM02
IEAVTM03
IEAVTM04
IEAVVTPC
IEWFETCH
IEWSUOVR
IEWSWOVR

COMPLETION CODES ISSUED BY VS2 SUPERVISOR

Completion Code	Subcomponent	Condition Detected In Module	Label
028	PS	IEAPSER	TCB
047	I	IEAVNV00	IEAQSC00
0C4	T	IEAVAD01	MAINEXIT
0Cx	I	IEAVNX00	IEAQPK00
0F2	T	IEA0PL00	PCTYPE1
0F4	T	IEA0PL00	ABSTAT1
0F7	I	IEAVNV00	IEAQPK00
101	TS	IEAVSY50	ECBWT
102	TS	IEAVSY50	COMMCHEK
104	VSS	IEAVGM00	GNOTSAT
106	CS	IEAVLK01	PGMFETCH
10A	VSS	IEAVGM00	GNOTSAT
10D	T	IEAVTM00	TSTCOMPL
10E	TS	IEAVTB00	PAGEONLY
128	TS	IEAVTB00	PROLOGUE
12A	TS	IEAVAT00	ERROR1
12C	TS	IEAVCH00	ABEND12C
130	TS	IEAVENQ1	ERRX1
138	TS	IEAVENQ1	ERRX1
13E	TS	IEAVED02	ABEND13E
14F	TS	IEAVSETS	ABEND14F
201	TS	IEAVSY50	ADDROK
202	TS	IEAVSY50	ERROR1
206	CS	IEAVLK00	LXREFER
20A	VSS	IEAVPRT0	FREEPART
20E	TS	IEAVTB00	SPIEADOK
228	TS	IEAVTB00	PROLOGUE
22A	TS	IEAVAT00	ERROR2
22C	TS	IEAVCH00	ABEND22C
230	TS	IEAVENQ1	ERRX2
238	TS	IEAVENQ1	ERRX2
23E	TS	IEAVED02	DTERROR
301	TS	IEAVSY50	PKEY1
305	VSS	IEAVGM00	QCALLOC
			FMCOM
30A	VSS	IEAVGM00	QCALLOC
			FMCOM
			SPFRMAIN
30D	T	IEAVTM03	TERMQEL
30E	TS	IEAVTB00	AB30E
328	TS	IEAVTB00	AB328
32A	TS	IEAVAT00	ERROR3
330	TS	IEAVENQ1	ERRX3
338	TS	IEAVENQ1	ERRX4
33E	TS	IEAVED02	ABEND33E
406	CS	IEAVLK00	CDALLOC
		IEAVLK01	DEFOUND
40A	VSS	IEAVGM00	SPFRMAIN
42A	TS	IEAVAT00	ERROR4
430	TS	IEAVENQ1	ERRX4
438	TS	IEAVENQ1	ERRX4
504	VSS	IEAVGM00	IGC004
505	VSS	IEAVGM00	IGC005
522	TMS	IEAVTI00	IEA0AB00
52A	TS	IEAVAT00	ERROR5
530	TS	IEAVENQ1	DRRX5
538	TS	IEAVENQ1	DRRX5
604	VSS	IEAVGM00	IGC004
605	VSS	IEAVGM00	IGC005
606	CS	IEAVLK00	CDLDRET
706	CS	IEAVLK01	DEFOUND
72A	TS	IEAVAT00	
804	VSS	IEAVGM00	GNOTSAT
			GMCOMMON
806	CS	IEAVLK00	IGC007
		IEAVLK01	BUILDEL
		IEAVLK01	DETOLPAQ
	TS	IEAVNU00	ERABTERM
80A	VSS	IEAVGM00	GNOTSAT
905	VSS	IEAVGM00	FMCOM
906	CS	IEAVLK00	CDLDRET
		IEAVLK01	CDMOPUP
90A	VSS	IEAVGM00	
A03	T	IEAVET00	ERSUBTSK
A05	VSS	IEAVGM00	FMCOM
A06	CS	IEAVLK00	CDQUECTL
A0A	VSS	IEAVGM00	FMCOM
B04	VSS	IEAVGM00	CSPCHK
B05	VSS	IEAVGM00	CSPCHK
B06	TS	IEAVNU00	SUABTERM
B0A	VSS	IEAVGM00	CSPCHK
C03	T	IEAVET00	ETCLAB
D05	VSS	IEAVGM00	FMCOM
D0A	VSS	IEAVGM00	FMCOM
D0D	T	IEAVTM03	INVTSJST
E03	T	IEAVET00	ERENQ
Fxx	I	IEAVNU00	IEAQSC00

WAIT STATE CODES ISSUED BY VS2 SUPERVISOR

Wait State Code	Subcomponent	Condition Detected In Module	Label
028	PS	IEAPSER	MAJOR
101	VSS	IEAVGM00	GNOTSAT
102	VSS	IEAVGM00	GNOTSAT

MESSAGES ISSUED BY VS2 SUPERVISOR

Message	Subcomponent	Issued by Module	Label
IEA027I	T	IEAVTM03	ENQMQRNM
IEA028A	T	IEAVTM03	ENQREISS
IEA029I	T	IEAVTM03	QUIMSG
IEA030I	T	IEAVTM01	OPENMSG
IEA031I	T	IEAVTM01	DMPMSG
IEA032I	T	IEAVTM02	CLOSEMSG
IEA047A	PS	IEAPSER	MSG
IEA048I	PS	IEAPSER	MSG
IEA049I	PS	IEAPSER	MSG
IEA700I	VSS	IEAVGM00	
IEA701I	VSS	IEAVGM00	
IEA702I	VSS	IEAVGM00	CSPCHK
		IEAVPRT0	
IEA703I	CS	IEAVLK00	
IEA801I	T	IEAVTM03	IGC0301C
IEA802I	T	IEAVTM00	SUPLKCHK
		IEAVTM02	SPVLKCHK
		IEAVTM03	QUISLKM
IEA803I	T	IEAVTM03	TSTSTEP
IEA804I	T	IEAVTM03	INVDUMP
IEA805I	T	IEAVTM03	ISOLAQEL
IEA806I	PS	IEAPSER	MSG
IEA807I	CS	IEAVLK00	

Index

Indexes to program logic manuals are consolidated in the publication OS/VS Master Index of Logic, GY28-0603. For additional information about any subject listed on the following pages, refer to other publications listed for that subject in the master index.

Where more than one page reference is given, the major reference is first.

ABBRANCH 412,720
ABDAREA (ABDUMP work area)
  definition of 666
  format of 737
ABDPL (ABDUMP component parameter list)
  definition of 666
  initialization of 624
  format of 744
ABDUMP -- Control Blocks I routine
  diagram of 616
  entry-point name of 729
  module name for 724
ABDUMP -- Control Blocks II formatting
  diagram of 618
  entry-point name of 729
  module name for 725
ABDUMP FORMAT routine
  diagram of 636
  entry-point name of 729
  module name for 725
ABDUMP FORMAT01 routine
  diagram of 636
  entry-point name of 729
  module name for 725
ABDUMP FORMAT20 routine
  diagram of 638
  entry-point name of 729
  module name for 725
ABDUMP FORMAT22 routine
  diagram of 638
  entry-point name of 729
  module name for 725
ABDUMP FORMET routine
  diagram of 640
  entry-point name of 729
  module name for 725
ABDUMP -- Header and PSW formatting
  diagram of 614
  entry-point name of 729
  module name for 724
ABDUMP Interface routine
  diagram of 624
  entry-point name of 729
  module name for 725
ABDUMP Mainline processing
  diagram of 612
  entry-point name of 729
  module name for 725
ABDUMP -- Nucleus displaying routine
  diagram of 626
  entry-point name of 729
  module name for 724
ABDUMP OUTPUT routine
  diagram of 634
  entry-point name of 729
  module name for 725
ABDUMP OUTPUT5 routine
  diagram of 634
  entry-point name of 729
  module name for 725
ABDUMP PRINT routine
  diagram of 634
  entry-point name of 729
  module name for 725
ABDUMP -- QCB formatting
  diagram of 620
  entry-point name of 729
  module name for 725
ABDUMP -- Register displaying
  diagram of 628
  entry-point name of 729
  module name for 724
ABDUMP routine
  description of 523
  overview of 603
  synopsis of 710
ABDUMP -- Save Area displaying
  diagram of 622
  entry-point name of 725
  module name for 725
ABDUMP subcomponent parameter list
  definition of 666
  initialization of 624
  format of 745
ABDUMP -- Subpool displaying
  diagram of 632
  entry-point name of 729
  module name for 724
ABDUMP -- Trace formatting
  diagram of 630
  entry-point name of 729
  module name for 724
ABDUMP work area
  definition of 666
  format of 737
ABEND ABDUMP phase
  diagram of 576
  entry-point name of 729
  module name for 721
ABEND Close phase
  diagram of 584
  entry-point name of 729
  module name for 721,726
ABEND Critical Error phase
  diagram of 596
  entry-point name of 729
  module name for 727
ABEND Final Housekeeping phase
  diagram of 586
  entry-point name of 729
  module name for 722
ABEND Initial Housekeeping phase
  diagram of 566
  entry-point name of 729
  module name for 720
ABEND Initialization phase
  diagram of 558
  entry-point name of 729
  module name for 726

ABEND-in-progress flag
setting of 527
ABEND Interface with ASIR
diagram of 562
entry-point name of 729
module name for 728
ABEND Mainline processing
diagram of 572
entry-point name of 729
module name for 727
ABEND Must-Complete phase
diagram of 592
entry-point name of 729
module name for 726
ABEND Open phase
diagram of 574
entry-point name of 729
module name for 726
ABEND recursion
check for 562,566
definition of 601
invalid 592,600
reentry points for 729
ABEND request
stacking of 566,572,576
ABEND routine
description of 522
invocation of 558
overview of 556
recursions 600
synopsis of 710
ABEND/STA Interface Phase 1
diagram of 650
entry-point name of 729
module name of 726
ABEND/STA Interface Phase 2
diagram of 654
entry-point name of 729
module name of 726
ABEND/STA Interface Phase 3
diagram of 656
entry-point name of 729
module name of 726
ABEND/STA Interface Phase 4
diagram of 660
entry-point name of 729
module name of 726
ABEND/STA Interface routine
description of 524
overview of 642
synopsis of 710
Abnormal End Appendage routine
description of 367
diagram of 366
entry-point name of 729
module name of 722
synopsis of 710
abnormal termination (see termination)
ABTERM Prologue routine
diagram of 548
entry-point name of 730
module name for 725
ABTERM routine
overview of 522,546
synopsis of 710
active page 666
active page queue 666
address translation 3,666
address translation exception 33
addresses of control blocks 947
AEQA, AEQJ, AEQS (see asynchronous exit queue)
alias processing
description of 666
allocate queue 746
allocated queue element (AQE)
construction of 403
format of 746
normal release of 521
allocating storage
description of 397
for control blocks 420
for external pages 388,460,462
for LSQA segments 434
for quickcells 436
for regions 440
for SQA 401
for SWA segments 454
within LSQA 420
within quickcells 438
within regions 414
within SQA 420
allocation
cancellation 240
deferred 234
fixed page 218
long-fix 228
reallocation 248
SQA/LSQA page 228
V=R region 234
anchor work area 374
APF (authorized program facility)
definition of 16,666
(see also TESTAUTH routine)
APG (automatic priority group)
definition of 16,666
(see also dispatcher)
APGCE (automatic group control element)
format of 745
purpose of 666
Appendages (PCI, CE, Abnormal End) routine
description of 367
diagram of 366
entry-point name of 732,730,729
module name of 723,722
synopsis of 710
AQE (allocated queue element)
construction of 403
format of 746
normal release of 521
ASIR (see ABEND/STA Interface routine)
asynchronous exit queue
construction of 72
definition of 666
purging of 584,596
asynchronous exits
scheduling of 600
suppression of 600
ATRB subroutine 566
ATTACH routine
description of 71
diagram of 70,72,74
entry-point name of 730
module name of 722
synopsis of 710
authorized program facility 16

automatic priority group control element (APGCE)
format of 745
purpose of 666
automatic priority grouping 16
auxiliary storage
assignment of pages 386
auxiliary storage administration
description of 388
modules in 706
routines in 706
Auxiliary Storage Manager
description of 203,389
diagram of 388,390,392
entry-point name of 730
module name of 722
synopsis of 710
awaiting an event
description of 86
available page count (APC)
decreasing of 253
increasing of 251
available page frame count 667
available page queue 667
available PFTE queue 667
description of 203
replenishing of 203
availability of an enqueued resource 92

basic control (BC) mode 667
BC (basic control) mode 667
BLDL routine
entry-point name of 730
function when used by the subroutines of contents supervision 178
module name of 725
synopsis of 710
BLDL table (see also fixed BLDL table) 667
BLDMSG subroutine 592
BOUNDTST subroutine 660
branch delay queue 274
branch entry page processing 217
Build PCB routine
description of 203,355
diagram of 354
entry-point name of 730
module name of 722
synopsis of 710

CALLPOST subroutine 258,274,282
causing a program to wait for one or more events
description of 86
CCHH calculation of 342
CDADVANS 720
CDALLOC subroutine
function of 720
CDATTR field
use of 747
CDATTR2 field
use of 747
CDCONTROL
use of 747
CDDESTRY routine
function of 133
flowchart of 135
CDE (contents directory entry)
abnormal release of 586
construction of 188
definition of 667
dump of 616
format of 747
normal release of 544
purpose of 747
release of 521
CDEPILOG subroutine
function of 172
CDESCAN subroutine 632
CDEXIT routine
description of 133
entry-point name of 730
flowchart 135
use by EOT 530
CDHKEEP
flowchart of 135
function of 133
CDLLSRCH
function of 169
CDMOPUP subroutine
function of 169
CDPURGE routine
entry-point name of 732
CDSEARCH subroutine
function of 169
CDSETUP subroutine
function of 174
CDUSE field
use of 747
CDXLPT subroutine 616
change bit 667
Channel End Appendage routine
description of 367
diagram of 366
entry-point name of 730
module name of 722
synopsis of 710
channel end interruption (CE)
definition of 750
processing of 366
channel program queue element (CPQE)
format of 749
purpose of 667,749
channel program translation 667
CHAP routine
description of 77
diagram of 76
entry-point name of 730
module name of 726
synopsis of 710
CIRB routine (see also Stage 1 Exit Effector)
description of 125
diagram of 124
entry-point name of 732
module name for 726
synopsis of 714
CKTHRESH routine
module name of 720
CLBRANCH 720
CLEANUP subroutine 656
clock comparator 667
clock comparator queue 667
closing data sets
abnormal termination 580

forced closing 580
normal termination 528,530
CMPLOUT subroutine
description of 331
diagram of 330,332
communication task WTOR purge routine 566
communication vector table (CVT)
definition of 667
entry-point name of 754
format of 754
purpose of 754
use of 754
Completion codes issued by the supervisor 953
contents directory
definition of 667
illustration of 14
registers on entry and exit 909
contents directory entry (CDE)
abnormal release of 586
construction of 170,172
definition of 667
dump of 616
format of 747
normal release of 544
purpose of 747
release of 544
contents supervision
description of 13,163,710
control blocks cross-reference table 947
control blocks referenced/set matrix 950
control and relocation dictionary (CTRLD) record
format of 752
purpose of 752
CPQE (channel program queue element)
format of 749
purpose of 749
CPU timer 667
Create Page Table routine
description of 305
diagram of 304
entry-point name of 730
module name of 723
synopsis of 711
critical system task
check for 562,566
definition of 563
processing of 562,566
CRITPURG subroutine 592
CRNRLNTH routine
module name of 720
CSPCHK routine 418
module name of 720
current task
dump of 723
purging of 721
CVT (communication vector table)
definition of 667
entry-point name of 754
format of 754
purpose of 754
use of 754
CVTDATE 754

DAT (dynamic address translation) 3,668
data areas 735
data control block (DCB)
validity of 606
data extent block (DEB)
abnormal release of 580
dump of 616
I/O AVT (appendage vector table) 616
data set
abnormal closing of 584
normal closing of 528,530
user exits, closing of 660
date, dump of 614
DCB (data control block)
definition of 165
format of 165
DCB parameter for LINK, LOAD, or XCTL processing
use of 165
DEB (data extent block)
abnormal release of 584
dump of 616
DECHPG subroutine 342
deferring the request for an unavailable module 172,173
Delay Post Queue Handler
description of 285
diagram of 284
entry-point name of 730
module name of 723
synopsis of 711
delayed post queue 274
DELETE routine
description of 187
diagram of 186
entry-point name of 730
module name of 726
synopsis of 711
demand paging 668
DEQ routine
description of 97
diagram of 96
entry-point name of 730
flowchart of 98
module name of 728
synopsis of 711
DEQPFTE subroutine 244,248,252
dequeue routine (see DEQ routine)
descriptor queue element (DQE)
definition of 668
dump of 618
format of 770
purging of 521
Destroy Page Table routine
description of 307
diagram of 306
entry-point name of 730
module name of 723
synopsis of 711
DETACH routine
description of 81
diagram of 80,82
entry-point name of 730
module name of 727
synopsis of 711
device
fixed head 391
moveable-head 391
multiple-exposure 338
single-exposure 338

directory
of entry-point names 729
of module names 719
of SVCs 734
disabled page fault 668
dispatchability
current task 151
job step 151
dispatcher
description of 151
diagram of 150
entry-point name of 730
module name of 725
synopsis of 711
dispatching priority
changing with the CHAP macro 76
description of 77
use of 77
DISPINIT routine
module name of 721
DLQSRCH subroutine 278
dormant state 668
DQE (descriptor queue element)
definition of 668
dump of 618
format of 770
purging of 521
DSAB, dump of 523
dummy PQE
construction of 401
dump of 618
format of 401
purging of 521
dummy TQE 499
dump
ABDUMP routine 603
ABEND dump 576
definition of 668
dynamic 668
options 523
SDUMP request 523
SNAP request 576
SVCDUMP 592,596,604
user-specified 523
dump data set
allocation of 572
closing of 580
construction of a DCB for 574
location of 574
opening of 572,574
DUMPMOD subroutine 628
dynamic address translation (DAT) 3,668
dynamic area
definition of 8,668
diagram of 8

EC (extended control) mode
definition of 669
ECB (event control block)
diagram of posting 88
format of 771
posting of
by EOT 528
purpose of 771
enabled page fault (see page translation exception)
enable/disable interruption 34
ENQ routine
description of 93
diagram of 92
entry-point name of 730
flowchart of 98
module name of 727
synopsis of 711
ENQ/DEQ Purge routine
description of 730
entry-point name of 725
flowchart 98
synopsis of 711
ENQ Manual Purge routine
invoked by ABEND 580
invoked by EOT 528
ENQMSG subroutine 592
ENQPFTE subroutine 244,250
Enqueue routine (see ENQ routine)
ENTAB (entry table)
format of 772
purpose of 772
entry point directory 729
entry points
directory of 729
embedded, informing the supervisor of 188
entry table (ENTAB)
purpose of 772
EOT (end-of-task) routines
overview of 527
synopsis of 711
EOT (end-of-task) mainline processing
diagram of 528,529
entry-point name of 730
module name of 721
subroutines
Dequeue IQE
diagram of 528,529
entry-point name of 730
module name of 722
Dequeue TCB
diagram of 534,536
entry-point name of 730
module name of 722
Erase TCB
diagram of 532
entry-point name of 730
module name of 724
Purge TAXEs
diagram of 538
entry-point name of 730
module name of 722
Purge Timer
diagram of 540
entry-point name of 730
module name of 724
Release Loaded Programs
diagram of 542
entry-point name of 730
module name of 724
Release Storage
diagram of 544
entry-point name of 730
module name of 724
ESA (extended save area)
zeroed by STA Services routine 642
ETCLOSE subroutine 528,530
ETXR

effect when ATTACH is executed 70,72
scheduled by EOT 528
event control block (ECB)
diagram of posting 88
format of 771
posting of
by EOT 528
event monitoring interruption 33
event recording 33
Exit Effector (see Stage 1 Exit Effector, Stage 2 Exit Effector, and Stage 3 Exit Effector)
Exit routine
description of 133
diagram of 132
entry-point name of 730
flowchart of 135
module name of 720
synopsis of 711
EXLNL 773
exposure, device
active 338,340
inactive 338,340
multiple 338,340
single 338,340
extended control (EC) mode
definition of 669
extent list
construction of 170,172
dump of 616
format of 892
normal release of 544
purpose of 892
External First-Level Interruption Handler
description of 32
diagram of 44
entry-point name of 730
synopsis of 711
external interruptions 32
external page address 669
external page storage
allocation of 404
for batch processing TSO tasks 404
external page storage management 203
external page table (XPT) 669
external page table entry (XPTE) 669
format of 892
purpose of 892
external storage management 203
page migration 386
processing by the Auxiliary Storage Manager 388
processing by the Migration routine 386
EXTRACT routine
description of 79
diagram of 78
entry-point name of 730
module name of 730
synopsis of 711

Fast FIX routine
description of 281
diagram of 280
entry-point name of 730
module name of 723
synopsis of 711
FBQE (free block queue element)
construction of 407
definition of 407
dump of 616
format of 774
purging of 523
searching 424
FBQSRCH routine 424
moudle name of 721
FBQSRCHA 424,721
FCOM 731
FELEMENT 731,721
FILTER subroutine 324
Find Page routine
description of 289
diagram of 288
entry-point name of 730
module name of 723
synopsis of 712
FINDRB subroutine (ABDUMP) 616,626
FINDRB subroutine (ASIR) 658
FINDSCB subroutine 650
fix accounting 221
fix count calculation of 235
fix counter (PCOUNT) 258
FIX delay queue 372
Fix list
abnormal release of 586
normal release of 528
Fix ownership element (FOE)
description of 775
purpose of 775
FIX Purge routine
description of 373
diagram of 372
entry-point name of 731
module name of 723
synopsis of 712
FIX Quiesce routine
description of 373
diagram of 372
entry-point name of 731
module name of 723
synopsis of 712
FIX request 258
FIX Restore routine
description of 375
diagram of 374,376
entry-point name of 731
module name of 723
synopsis of 712
FIXACCT subroutine 258
FIXACT subroutine 218
fixed 669
fixed link pack area
definition of 669
fixed page 669
fixing pages
necessity for 259
processing by the Page Service Interface FIX/LOAD routine 258
FIX/LOAD Asynchronous Completion routine
description of 283
diagram of 282
entry-point name of 731
module name of 721
synopsis of 712
FIX/LOAD codes
completion 271

return 271
fix/load counter 258
FIX/LOAD subroutine
description of 259
diagram of 258,260,262,264,266,268,270
entry-point name of 731
module name of 721
synopsis of 259
FIXQPURG subroutine 372
FLISTADV 721
FMAINB 721
FMBRANCH 721
FMCOMMON 721
FMCOMM1 721
FMSMFCRE routine
entry-point name of 732
FOE (fix ownership element)
format of 775
purpose of 775
FOE Merge routine
description of 287
diagram of 286
entry-point name of 731
module name of 723
synopsis of 712
FOEEDQ subroutine 286
FOERMBR subroutine 286
FORCLOSE subroutine 350
FQE (free queue element)
construction of 407
definition of 407
dump of 618
format of 776
purging of 521
searching 426,482
updating 428,484
frame 669
frame number 669
frame table 669
frame table entry 669
free block queue element (FBQE)
construction of 407
definition of 669
dump of 523
format of 774
purging of 721
free queue 669
free queue element (FQE)
construction of 407
definition of 669
dump of 618
format of 776
purging of 721
searching 426,482
updating 428,484
FREE subroutine
description of 275
diagram of 274,276,278
entry-point name of 274
module name of 274
synopsis of 274
Free V=R Pages subroutine 234
FREEAUX 493
freeing pages
necessity for 275
processing by the Page Service Interface
FREE routine 274,276,278
freeing regions
V=R 238
freeing storage (see releasing storage)
FREELSQA 479
FREEMAIN routines
description of 409,712
error processing 466
interface with EOT 466
macro instruction 397
FREEPART 481
FREESWA 491
FRETRN1 468
FTWORK 777
FVARCHK 721

GAM forced close macro 580
GBLDAQE routine
module name of 722
GCOMM4 412
GCOMM5 412
Generalized Trace Facility (GTF)
activation of 562,596
processing module, interface with 630
recovery procedures for 562,596
suspension of 576,608
GERROR routine 466
module name of 722
Get LSQA Segment routine 434,712
GETAUX routine 460
description of 460
GETLSQA 434
GETMAIN
common routine 414,416
error processing 466
macro instruction 397
parameter list 413
routines 412,712
GETMAINB 722
GETPAGE 457
GETPART 441
GETROOT subroutine 258
GETSWA 454,456
getting storage (see allocating storage)
GETTJB, use by EOT
GFQEUPDT routine
description of 428
module name of 722
GFRECORE routine
description of 426
module name of 722
GLIST 722
GLIST1 722
glossary 666
GMBRANCH 722
GMBRETRY 722
GMCOMMON 412,722
GMCOMM1 722
GMSMFCRE
module name of 722
GNOTSAT routine 464
GNOTSATA 464,722
GNOTSATB 464,722
GNOTSATC 464,722
GOVRFLB 785
graphics EOT routine 528
group number 670
GSPQESPC routine
description of 422

module name of 722
GTF (generalized trace facility) 17
activation of 562,596
processing module, interface with 630
recovery procedures for 562,596
suspension of 576,608
GTF Processing routine 630
G4KSRCH routine
diagram of 458
module name of 722

hold page queue 670

ID, user dump of 614
IEAHEAD
meaning of 63
IEAPGSWA routine diagrams of 454,456,490,491
IEAPLSQA routine
diagrams of 434,478
entry-point name of 723
IEAPQCI routine
entry-point name of 723
IEAQTRCE 724
IEASCSAV 30,40
IEATCBP
meaning of 151
IEATPC (timer data area) 880
IEAVPRT0 routine
module name of 725
IEAVVMSR
description of 177
diagram of 176
IDENTIFY routine
description of 189
diagram of 188
entry-point name of 731
module name of 726
synopsis of 712
ILC (interruption length code)
dump of 614
INFOLIST (type-1 SVC message table)
format of 786
purpose of 786
informing the supervisor of an embedded entry point 188
INITSPCA subroutine 324
INITSWA subroutine 650,654
input/output block (IOB)
set by STAR routine 160
input/output interruption handling 29,38
interpartition POST requests
cancellation of 580
interruption code 29
interruption code 17
definition of 673
processing for 673
interruption handling (see also I/O interruptions, SVC interruptions, program interruptions, external interruptions, and machine interruptions) 29
interruption length code
dump of 723
interruption queue element (IQE)
abnormal release of 566,580,596
construction of 72
dump of 618
format of 788
normal release of 529
purging of 521
purpose of 788
interruption request block (IRB)
construction of 521
dump of 616
format of 838
normal release of 521
purpose of 838
interruption supervision
description of 27
registers upon entry and exit 895
interruptions
disabled 31
enabled 31
INTRFACE subroutine 624
invalid page 370
I/O active queue 370
I/O error
Error Recovery Program (ERP) 366
nonpermanent 366
permanent 366
I/O (input/output)
for dumps 608
purging of 566,592,596,600
I/O FLIH (see I/O First-Level Interruption Handler)
I/O First-Level Interruption Handler
description of 29
diagram of 38
entry-point of 731
synopsis of 712
I/O interruptions 29
I/O switch (IORGSW)
function of 39
IOB (input/output block)
set by STAR routine 160
IOBPROC subroutine 660
IORGSW 39
IQE (interruption queue element)
abnormal release of 566,580,596
construction of 72
dump of 723
format of 788
normal release of 528
purging of 521
purpose of 788
IQE queue (asynchronous exit queue)
abnormal release of 580,596
construction of 72
definition of 521
normal release of IQEs 528
IRB (interruption request block)
construction of 124
dump of 616
format of 838
normal release of 521
purpose of 13,838

job name, dump of 614
job pack area queue (JPAQ)
definition of 670
dump of modules 628
normal release of modules, CDEs, and extent list 544

use of 165
JOBNAME subroutine 364
job step termination 592
job-step task
abnormal termination of 566
definition of 671
job-step timing
in dispatcher routine 150
in POST routine 88,90
in WAIT routine 86
JPAQ (job pack area queue)
definition of 165,670
dump of modules 628
normal release of modules, CDEs, and extent lists 544
use of 165
JSTCBSUB subroutine 218

limit priority
description of 671
use of 76
LINK macro instruction (see also LINK routine)
link pack area (LPA) (see also fixed link pack area)
definition of 671
dump of 823
link pack area directory
definition of 671
description of 166
link pack area queue (LPAQ)
definition of 671
search of 166
link pack directory entry (LPDE)
format of 790
purpose of 790
LINK routine
description of 171
diagram of 170,172
entry-point name of 726
module name of 726
LISTINIT subroutine 256
LLECOUNT field
meaning of 165
LLE (load list element)
construction of 165
dump of 616
format of 789
normal release of 528,542
purpose of 789
load list
definition of 671
purging of 186
release of 542
load list element (LLE)
construction of 165
dump of 823
format of 789
normal release of 528,542
purpose of 789
release of 542
LOAD macro instruction (see also LOAD routine)
LOAD request 358
LOAD routine
description of 183
diagram of 182
entry-point name of 182
module name of 183
synopsis of 712
local system queue area (LSQA)
allocating 434
definition of 671
dump of 626
location of 402
normal release of 532,544
size of 402
use of 402
LOCATE subroutine 632
long-fix count
calculation of 235
long-fix counter (LPCOUNT) 258
long-fix processing 222
LPA (link pack area)
definition of 671
dump of 823
LPA directory
definition of 671
LPAQ
definition of 671
search of 166
LPASET subroutine 324
LPDE (link pack directory entry)
format of 790
purpose of 790
LRA instruction 261
LSQA (see local system queue area)

Machine-Check Handler 29
machine-check interruptions 29
major CDE (see contents directory entry)
master scheduler initiator/terminator routine
use in task creation 63
MB (message buffer)
format of 792
purpose of 792
MC instruction (see Monitor Call instruction)
MCQEI subroutine 592
flowchart of 594
message buffer (MB)
format of 792
purpose of 792
messages
purging of 821
table of messages issued by the VS2 supervisor 954
midnight TQE 499
migration
initiation of 386
Migration routine
description of 387
diagram of 386
entry-point name of 731
module name of 723
synopsis of 712
minor CDE (see contents directory entry)
minor QCB 834
missing page exception (see page translation exception)
missing page interruption (see page translation exception)
missing page interruption processing 210

MODESET routine
description of 159
diagram of 158
entry-point name of 731
module name of 722
synopsis of 712
module
normal release of 228,230
module directory 719
Monitor Call instruction 33
Move/Build/Relate PCB -- subroutines for queuing and dequeuing PCBs
description of 361
diagram of 360
entry-point name of 360
module name of 361
Move Page routine
description of 243
diagram of 242
entry-point name of 731
module name of 723
synopsis of 712
Move PCB routine
description of 353
diagram of 352
entry-point name of 731
module name of 722
synopsis of 712
MRELEASA 728
MRELEASE routine
module name of 728
MSGPHASE subroutine (ABEND)
entry-point name of 729
module name of 573
processing of 572
MSPURG subroutine 566,572
multiple-exposure device 338
multiple job-step failure 566
must-complete resources 566
must-complete status
clearing of 592
definition of 566
job-step must-complete status 566
meaning of TCB flags 529
processing of tasks 592
setting of 566
system must-complete status 566
MVESA subroutine 600

NEXTVMA subroutine 258,274
nondispatchability flags, TCB
meaning of 867
nondynamic area
definition of 671
description of 6
nonpageable dynamic area
definition of 671
description of 6
nonpageable region
definition of 671
NOPURGE subroutine 656
note list
format of 773
purpose of 773
nucleus
dump of 626

OLTEP task
terminating 562
operator communication queues 521
OPSW
saving of 30
organization
of real storage 8
of supervisor program 701
of virtual storage 6
overlay request 190
overlay segment table (SEGTAB)
definition of 672
format of 850
overlay supervisor
description of 191,712
diagram of 190
entry-point names for 731
module names for 191
types of processing 190

page
availability 241
usability 243
page administration
description of 706
modules in 706
routines in 706
page control block (PCB)
format of 795
initialization of 795
processing of
allocate queue 218
purpose of 795
page data set 672
page device information table entry (PDITE)
format of 799
purpose of 799
page device table entry (PDTE)
format of 810
purpose of 810
page fault
disabled processing 218
program check processing 218
page fixing 672
page frame
availability 235
shortage of 244
status 235
page frame table 672
page frame table entry (PFTE)
availability bit 225
format of 812
purpose of 812
Page Hook routine
description of 371
diagram of 370
entry-point name of 731
module name of 728
synopsis of 713
page-in 672
page I/O initiation queue 672
page I/O interruption processing 212
Page I/O Post -- Page-out, Page-in, and Notification subroutines
description of 293
diagram of 292

entry-point name of 731
module name of 723
synopsis of 713
Page I/O Post Processor
description of 291
diagram of 290
entry-point name of 731
module name of 723
synopsis of 713
Page I/O Supervisor
description of 339
diagram of 338,340
entry-point name of 731
module name of 723
synopsis of 713
Page I/O Supervisor -- Building and Queuing Channel Program subroutines
description of 343
diagram of 342,344,346
entry-point name of 731
module name of 723
synopsis of 713
page migration 672
page number 672
page-out 672
page reclamation 672
page replacement algorithm
description of 202
processing of 244
page replacement algorithm table 202,245
Page Replacement -- Allocation Scheduling and Root Exit Processing
description of 249
diagram of 248
entry-point name of 731
module name of 723
synopsis of 713
Page Replacement routine
description of 245
diagram of 244,246
entry-point name of 731
module name of 723
synopsis of 713
Page Service Interface routine
description of 257
diagram of 256
entry-point name of 731
module name of 727
synopsis of 713
page-supervisor-in-control flag 295
Page SVC interruption processing 215
page table (PGT) 814,672
page table entry (PGTE or PTE) 672
format of 814
purpose of 814
page table origin (PTO) 289
page task
activation of 361
definition of 201
priority of 201
page translation
definition of 672
page translation exception 33,50,672
invalid 608
page vector table (PVT)
definition of 672
format of 820
purpose of 820
page wait 672
pageable region
definition of 673
paged dynamic area
definition of 672
description of 6
paging
definition of 673
paging activity
abnormal release of 566,592,596,600
normal release of 528
paging change bit 667
paging device 673
paging error 364
paging exception (see page translation exception)
paging interface control
description of 201
modules in 706
routines in 706
paging rate 673
paging reference bit 202
paging supervision
description of 199
paging supervisor
algorithms 201
page replacement 202
task disable 202
entries from
branch entry 201
dispatcher 201
IOS appendage 201
program FLIH 201
SVC FLIH 201
function of 14
organization of
auxiliary storage administration 201
interface control 201
page administration 201
real storage administration 201
registers on entry and exit 895
Paging Supervisor Appendages (Channel End, Abnormal End)
description of 367
diagram of 366
entry-point name of 732,730,729
module name of 367
synopsis of 713
Paging Supervisor Appendages -- subroutines for Freeing Resources and Handling Errors
description of 369
diagram of 368
entry-point name of 368
module name of 369
synopsis of 713
Paging Supervisor Error Recorder
description of 365
diagram of 364
entry-point name of 732
module name of 723
synopsis of 713
paging supervisor termination routine 370
paging supervisor TQE 499
parameter list (ENQ/DEQ routine)
format of 92,96
partition queue element (PQE)
definition of 673
dump of 823

format of 818
purging of 821
purpose of 818
partitioned data set directory entry (PDS DE) used by contents supervision common subroutines 165
PARRLSE subroutine 572,600
PASSBACK subroutine 258,282
PCB (page control block)
format of 795
purpose of 795
PCB queue
delayed post 210
header, calculation of 352
I/O active 210
I/O initiation 210
real storage allocation 210
PCBROOT (root PCB)
format of 797
purpose of 797
PDITE (page device information table entry)
format of 799
purpose of 799
PDS directory entry
(see also partitioned data set directory entry)
used by contents supervision subroutines 167,192
PDTE 810
PDTESCAN subroutine 392
PER (see program event recording)
PFT 814
PFTE 812
address, calculation of 235
removal of 252
PFTE Dequeue routine
description of 253
diagram of 252
entry-point name of 732
module name of 723
synopsis of 713
PFTE Enqueue routine
description of 251
diagram of 250
entry-point name of 732
module name of 723
synopsis of 713
PFT-in-use queue
location of 246
PFT slot number 350
PGT 814
PGTE 814
PICA (program interruption control area)
construction of 608
format of 815
purpose of 815
PIE (program interruption element)
abnormal release of 566,580
construction of 608
dump of 823
format of 816
normal release of 528
purpose of 816
pointers to control blocks 947
POST routine
description of 89
diagram of 88,90
entry-point name of 732
module name of 725
synopsis of 713
posting an event control block
diagram of 88,90
PQE (partition queue element)
definition of 673
dump of 823
format of 818
purging of 821
PRB (program request block)
definition of 673
dump of 618
format of 838
normal release of 821
purpose of 838
PRBHOSKP subroutine 572
PREFIX subroutine 648
primary paging device 673
PRGQ subroutine 580,596
program
abnormal release of 572,586,600
normal release of 528
organization diagrams 703
program check interruptions 34,52,54
Program-Check Interruption Extension
description of 349
diagram of 348
entry-point name of 732
module name of 723
synopsis of 713
program controlled interruption (PCI)
definition of 367
processing of 366
program event recording 673
Program Fetch Channel-End Appendage routine
description of 197
entry-point name of 732
module name of 197
synopsis of 713
Program Fetch PCI Appendage routine
description of 196
entry-point name of 732
module name of 721
synopsis of 713
Program Fetch routine
description of 193
diagram of 192,196
entry-point name of 732
module name of 197
synopsis of 713
Program Fetch work area
description of 777
format of 777
initialization of 193
purpose of 777
Program First-Level Interruption Handler
description of 32
diagram of 46,48,50,52,54,56
entry-point name of 732
synopsis of 713

program interruption code 16 673
program interruption code 17 673
program interruption code 18 673
program interruption control area (PICA)
  construction of 608
  format of 815
  purpose of 815
program interruption element (PIE)
  abnormal release of 566,580
  construction of 84
  dump of 823
  format of 816
  normal release of 528
  purpose of 816
program interruption handling 32
program, purging of 821
program request block (PRB)
  definition of 673
  dump of 616
  format of 838
  normal release of 821
  purpose of 13,838
protection of storage 9
PSW, dump of 823
PTE (page table entry)
  format of 814
  purpose of 814
PURGEIO subroutine 652
PURGERB subroutine 654
PURGEFIX subroutine 370
purging (see also CDPURGE) 132
Purging PCBs subroutine
  description of 379
  diagram of 378,380,382
  entry-point name of 378
  module name of 379
  synopsis of 379
PVT (page vector table)
  format of 820
  purpose of 820
PVTAPC (see available page count)

QCALLOC routine 438
QCB (queue control block)
  construction of 92
  format of 834
  major
    dump of 620
    purging of 521
  minor
    dump of 620
    purging of 521
  normal release of 521
QCB queues
  construction of 92
  illustration of 92
  normal removal of element from 521
  origin of 92
QCBMAJ (major queue control block)
  format of 834
  purpose of 834
QCBMIN (minor queue control block)
  format of 834
  purpose of 834
QCBRANCH 728
QCDBLK (quickcell descriptor block)
  description of 436
  format of 836
  purpose of 836
QCDE (quickcell descriptor entry)
  description of 436
  format of 436
QCFREE 728
QEL (queue element)
  construction of 92
  dump of 620
  format of 837
  normal release of 521
  purging of 521
  purpose of 837
QPOINT subroutine 644
QSEARCH subroutine 338
queue control block (QCB)
  construction of 92
  format of 834
  major
    dump of 620
    purging of 521
  minor
    dump of 620
    purging of 521
  normal release of 521
queue element (QEL)
  construction of 92
  dump of 620
  format of 837
  normal release of 521
  purging of 521
  purpose of 837
Queue Scanner (paging task)
  description of 363
  diagram of 362
  entry-point name of 732
  module name of 723
  synopsis of 714
QUEUE Search subroutine (AQSEARCH) 228
queued (delayed) request processing 211
quickcell
  allocation of 438
  definition of 674
  use of 404
quickcell descriptor block (QCDBLK)
  description of 836
  format of 836
quickcell descriptor entry (QCDE)
  description of 436
  format of 436

RB (see request block)
RB old PSW (RBOPSW)
  saving of 30
real address 674
real storage
  after initialization 8
  definition of 674
  eligible for nonpageable tasks 8
  organization of 8
real storage administration
  description of 705
  modules in 705
  routines in 705
real storage allocation queue 674
Real Storage Allocation routine
  description of 203

diagram of 218
entry-point name of 732
module name of 722
synopsis of 714
real storage management 203
dynamic storage
eligible for paging 203
V=R allocation 203
non-dynamic storage
allocation for supervisor use 203
Real Storage Reclamation subroutine
description of 225
diagram of 224,226
entry-point name of 224
module name of 225
synopsis of 225
REAL timing 674
Real to Virtual Address Translation routine
description of 351
diagram of 350
entry-point name of 350
module name of 351
synopsis of 351
reclamation
fixed page 218
recovery management 29
RECRBPRG subroutine 600
recursions 33,674
ABEND
definition of 666
entry points for 729
processing
for 562,566,576,580,596,600
validity 596,600
ASIR
processing for 650
valid 650
definition of 33
invalid 33
STA Services routine
processing for 644
valid 33
reference bit 674
Region reference-validity map 406
Region Validation subroutine 234
register
dump of contents 628
registers upon entry or exit, tables of 895
REGMAIN 412
Relate PCB routine
description of 357
diagram of 356
entry-point name of 732
module name of 722
synopsis of 714
Release -- subroutines for Searching PCBs and Freeing Real Storage
description of 303
diagram of 302
entry-point name of 732
module name of 303
synopsis of 714
Release Queue Suppression routine
description of 359
diagram of 358
entry-point name of 732
module name of 723
synopsis of 714
Release routine (Branch)
description of 299
diagram of 298,300
entry-point name of 732
module name of 723
synopsis of 299
Release routine (Supervisor SVC Branch)
description of 297
diagram of 296
entry-point name of 732
module name of 723
synopsis of 297
Release routine (User SVC)
description of 295
diagram of 294
entry-point name of 732
module name of 727
synopsis of 295
releasing storage 294,468
description of 409,468
external pages 294,492
LSQA segments 478
quickcells 488
regions 409
SWA pages 491
SWA segments 490
relocation address 348
relocation list dictionary record
format of 752
use of 752
REMOVERB subroutine 586
flowchart of 590
replenishment
reserve queue 230
REQLLE subroutine 574
request block (RB)
abnormal release of 588
definition of types 11
dump of 616
format of 838
(see IRB, PRB, SIRB, SVRB, TIRB)
normal release of 588
purging of 521
use of 13
request management
page control block (PCB) 795
processing by the Queue Scanner routine 362
request queue element (RQE)
definition of 674
format of 844
purpose of 844
queuing of 674
requesting one or more resources via the ENQ macro instruction 92
RESERVE macro instruction
used in DEQ routine 92
used in ENQ routine 96
Reserve Replenish Queue Processor
description of 231
diagram of 230
entry-point name of 732
flowchart of 232
module name of 723
synopsis of 714
reset must-complete function

description of 566
RESETHI subroutine 574,576,580
resource queues for ENQ/DEQ requests 97
resources
release of
normal 528
responsibility count (LLECOUNT)
format of 165
use of 165
restarting tasks 574,576,580
RET parameter
effect during DEQ processing 97
effect during ENQ processing 93
RETABEND subroutine 650,654
RETCALL subroutine 550
RLD buffer
description of 752
RLD record
format of 752
RMBRANCH 413
Root PCB (PCBROOT)
format of 797
purpose of 797
routine synopsis 710
ROOTFREE subroutine 258,282
RQE (request queue element)
definition of 674
format of 844
purpose of 844
queuing of 674
RQE queue (see asynchronous exit queue)

SAPRINT1 subroutine 622
SAPRINT2 subroutine 622
SAPRINT3 subroutine 622
save area
dump of 622
purging of 821
Scantree subroutine 277
scan table entry
calculation of 277,302
SCANPFTQ subroutine 254
SCANQ subroutine 242
SCB (STAE control block)
construction of 524
format of 845
purpose of 845
release storage of 586
SCHEDRT subroutine 586,600
SCNTE 833
SDUMP request 523
SDWA (STA diagnostic work area)
format of 846
initialization of 650
purpose of 846
secondary paging device 675
second exit
deferring of 284
SEGLD macro instruction
linkage to the overlay supervisor 491
SEGLD processor routine
description of 190
entry-point name of 732
module name of 727
segment
allocation of 403
definition of 675
segment table (SGT) 852
segment table entry (SGTE or STE)
format of 852
purpose of 852
segment table origin register (STOR), use of 4
segment translation exception 34,46,675
SEGTAB
(see overlay segment table)
SEGWT macro instruction
linkage to the overlay supervisor 491
SELECT subroutine 566
serializing the use of a resource 92
set must-complete function
description of
for a job step 566
for the system 566
Set System Mask (SSM) instruction 34,48
SETSPCT subroutine 324
SGT (segment table) 852
SGTE (segment table entry)
format of 852
purpose of 852
shared direct access device feature (SDASD) with the ENQ/DEQ routine 16
flowchart of 98
single-exposure device 338
SIRB (system interruption request block)
format of 838
purpose of 13,838
SLKM subroutine 562,566,580,596
slot 675
slot group 675
slot queue (SQ)
format of 853
purpose of 853
SMF (system management facility) 16
SMF 10-minute TQE 499
SNAP request 523
snapshot list, dump of 626,675
SPCA (swap communications area)
format of 854
purpose of 854
SPCT (swap control table)
format of 858
purpose of 858
SPFRMAIN routine
diagram of 470
module name of 728
SPIE routine
description of 85
diagram of 84
entry-point name of 732
module name of 726
synopsis of 714
SPQE (subpool queue element)
construction of 407
dump of 618
format of 863
normal release of 544
SPREL 728
SP253FR 728
SQ (slot queue)
format of 853
purpose of 853
SQA (system queue area)
after initialization 401
description of 401

dump of 626
normal release of 544
size 401
use of 401
SQA/LSQA Allocation routine
description of 229
diagram of 228
entry-point name of 732
module name of 723
synopsis of 714
SQA/LSQA reserve queue 202
SQCTUPDT subroutine 342
SQE (supervisor queue element)
abnormal release of 566,580,596
construction of 874
definition of 675
dump of 618
format of 864
purpose of 864
scheduling of 550
SSM (Set System Mask) instruction 34,48
STA control block
format of 845
processing of 644
purpose of 845
release storage of 586
STA diagnostic work area (SDWA)
format of 846
initialization of 650
purpose of 846
STA recursion
validity check by ABEND 562
STA Services routine
diagram of 644
entry-point name of 732
module name of 726
overview of 642
synopsis of 714
stacking ABEND requests 566,572,576
STACTCB subroutine 566,572,576
STAE macro instruction 524
Stage 1 Exit Effector (CIRB)
description of 125
diagram of 124
entry-point name of 732
module name of 726
synopsis of 714
Stage 2 Exit Effector
description of 127
diagram of 126
entry-point name of 732
module name of 725
synopsis of 714
Stage 3 Exit Effector
description of 129
diagram of 128,130
entry-point name of 732
module name of 721
synopsis of 714
STAI request 524
STAR routine
(see System Task ABEND Recovery Exit routine of the system error task)
STATUS macro instruction
description of 153
STATUS routine
description of 153
diagram of 152.8
entry-point name of 732
module name of 724
synopsis of 714
STAX count
decremented by EOT 527
STE (segment table entry)
format of 852
purpose of 852
stealing page frames 202
step name, dump of 614
STIMER routine
description of 498
diagram of 504
entry-point name of 732
module name of 726
synopsis of 714
STOR (segment table origin register), use of 4
storage
abnormal release of 586
allocation of 395
normal release of 528
protection 9
Storage queue origin list (GOVRFLB)
format of 785
purpose of 785
subpool
definition of 676
dump of 632
normal release of 544
numbers and meaning 398
use of 397
subpool queue element (SPQE)
construction of 422
dump of 618
format of 863
normal release of 544
purging of 521
subtask
attaching a 70
detaching a 80
queuing a 92
supervisor lock
definition of 562
ownership of 550,562,566,580,596
supervisor queue element (SQE)
abnormal release of 566,580,596
construction of 422
definition of 676
dump of 618
format of 864
purpose of 864
supervisor request block (SVRB)
construction of 42
dump of 616
format of 838
normal release of 521
purpose of 13,838
scheduling of 42
supervisor trace
activation of 35,558,604
deactivation of 604
supervisor trace table
definition of 35
dump of entries 604
initialization of 608
SUSPEND subroutine 258
SVC delay queue 274

SVC First-Level Interruption Handler
description of 30
diagram of 40
entry-point name of 732
synopsis of 715
SVC FLIH (see SVC First-Level Interruption Handler)
SVC interruption processing 30,214
SVC modules
dump of 626
search for 626
SVC table
format of 31
function of 31
SVC directory 734
SVCDUMP routine 523
control block used 603
diagram of 604
entry-point name of 732
module name of 724
overview of 603
synopsis of 714
SVC Second-Level Interruption Handler
description of 31
diagram of 42
entry-point name of 732
synopsis of 715
SVRB (supervisor request block)
construction of 31,42
dump of 616
format of 838
normal release of 521
purpose of 838
SWA (see system work area)
SWAB (see system work area block)
format of 865
purpose of 865
SWAH (see system work area header)
format of 866
purpose of 866
swap communications area (SPCA)
format of 854
purpose of 854
SWAP Control routine
description of 309
diagram of 308
entry-point name of 733
module name of 723
synopsis of 715
swap control table (SPCT)
format of 858
purpose of 858
Swap SVC Interface routine
description of 385
diagram of 384
entry-point name of 733
module name of 385
synopsis of 715
Swap-in Completion routines for Stages 1, 3, and 4 Completion
description of 315
diagram of 314,316
entry-point name of 733
module name of 723
synopsis of 715
Swap-in Completion subroutine
description of 319
diagram of 318,320,322
entry-point name of 733
module name of 723
synopsis of 715
swap-in processing 310
Swap-in Set-up subroutine
description of 311
diagram of 310
entry-point name of 733
module name of 311
synopsis of 311
Swap-out -- CMPLOUT subroutine
description of 331
diagram of 330,332
entry-point name of 733
module name of 331
synopsis of 311
Swap-out Completion routine
description of 329
diagram of 328
entry-point name of 733
module name of 728
synopsis of 715
Swap-out Control subroutine
description of 325
diagram of 324,326
entry-point name of 733
module name of 325
synopsis of 325
Swap-out -- External Address Assignment subroutines
description of 335
diagram of 334,336
entry-point name of 733
module name of 335
synopsis of 335
swapping 676
SYNCH routine
description of 181
diagram of 180
entry-point name of 726
module name of 726
synopsis of routines 710
system error task
entry-point name of 733
module name of 728
use of 160
system interruption request block (SIRB)
format of 838
purpose of 13,838
system management facility (SMF) 16
system queue area (SQA)
after initialization 401
description of 401
dump of 626
normal release of 544
size 401
use of 401
System Task ABEND Recovery (STAR) Exit Routine of the System error task
description of 161
diagram of 160
entry-point name of 733
module name of 728
synopsis of 160
system work area (SWA)
allocating pages in 456
allocating storage for 454
system work area block (SWAB)

format of 865
purpose of 865
system work area header (SWAH)
format of 866
purpose of 866

task control block (TCB)
abnormal release of 580,586
construction of 63
definition of 677
dump of 616
format of 867
new TCB address 532
normal release of 528,532
old TCB address 532
purging of 521
queuing of 63
validity of 608
task disable algorithm
calculations used 202
description of 202
processing of 254
Task Disablement Algorithm and Threshold Checking routine
description of 255
diagram of 254
entry-point name of 733
module name of 255
synopsis of 715
task interruption request block (TIRB)
construction of 550
deactivation of 558,566
definition of 677
dump of 616
format of 838
purpose of 13,838
task I/O table
DD entries of 572
dump of 616
task Post 290
task post queue 677
Task Post Queue Processor
description of 291
diagram of 290
entry-point name of 733
module name of 723
synopsis of 715
task statistics table (TCT) 248
task supervision
description of 61
registers upon entry and exit 895
task switch
definition of 677
use of 148
Task Switch routine
description of 149
diagram of 148
entry-point name of 733
module name of 725
synopsis of 715
task timing 677
task timing queue 677
TAXE
abnormal release of 580
normal release of 528,538
TCAM Formatting routine
interface with ABDUMP 624
TCAM Interpartition POST request, cancellation of 580
TCB (task control block)
abnormal release of 580,586
construction of 63
definition of 677
dump of 523,616
format of 867
new TCB address 532
normal release of 528,532
old TCB address 532
purpose of 867
queuing of 63
TCT updating 432
terminal attention exit element (TAXE)
abnormal release of 580
normal release of 528,538
Termination Interface
description of 521
diagram of 370
entry-point name of 733
module name of 723
synopsis of 715
termination supervision 519
abnormal 522
performing (ABEND) 522
scheduling (ABTERM) 522,548,550
dumping storage 523
ABDUMP 523
SVCDUMP 523
introduction 519
normal (EOT) 521
overview 526
registers on entry and exit 895
user exit routine (ASIR, STA) 524
visual table of contents 525
terms 665
TESTADDR 256
TESTAUTH routine
description of 157
diagram of 156
entry-point name of 733
module name of 725
synopsis of 715
thrashing 677
time-of-day calculation 502
time-of-day clock 677
TIME routine
description of 497
diagram of 502
entry-point name of 733
module name of 726
synopsis of 715
time sharing link pack area 167
time sharing option 16
ATTACH routine with 70
CHAP routine with 76
DEQ routine with 96
interregion POST with 88
Stage 3 Exit Effector with 128
STATUS routine with 152
time slice control element (TSCE)
pointers in 887
time-slicing feature 17
ATTACH routine with 70
CHAP routine with 76
dispatcher with 150
termination of task 534

time stamp 614,58
timer data area (IEATPC) 880
TIMER Dequeue routine
  diagram of 516
  entry-point name of 733
  module name of 724
Timer Enqueue routine
  diagram of 514
  entry-point name of 733
  module name of 724
timer interruption handling 32
timer queue element (TQE)
  abnormal release of 580
  format of 884
  normal release of 528,540
  purpose of 884
timer requests
  cancellation of 540
Timer Second-Level Interruption Handler
  description of 498
  diagram of 508,510,512
  entry-point name of 733
  module name of 725
  synopsis of 715
timer supervision
  diagram of 501
  introduction to 495
  registers on entry and exit 895
TIRB (task interruption request block)
  construction of 124,550
  deactivation of 558,566
  definition of 677
  dump of 608
  format of 838
  purpose of 838
top terminating task
  definition of 677
  determination of 566
TPC (timer data area)
  format of 880
  purpose of 880
TQE (timer queue element)
  abnormal release of 580
  format of 884
  normal release of 528,540
  purpose of 884
Trace function 35,58,60
trace table 35,58,60
translation specification exception 33,677
translation
  of virtual addresses 3
  tables 3
TRDISP 728
TREX 728
TRIO 728
TRPI 728
TRSIO 728
TRSVC 728
TSCE (time slice control element)
  pointers in 887
TSLO subroutine 576,580,586
TSO
  devices specified 336
  external pages used 331
  special feature 16
TSO formatting routine
  interface with ABDUMP 624
TSO Interpartition POST request
  cancellation of 580
TSO task
  termination of 534,540
TSO TQE 499
TSOAUX 462
TTIMER routine
  description of 498
  diagram of 506
  entry-point name of 733
  module name of 726
  synopsis of 715
Type-1 Exit routine
  description of 147
  diagram of 146
  entry-point name of 733
  module name of 725
  synopsis of 715
type-1 SVC message table (INFOLIST)
  format of 786
  purging of entries 572,596,600
  purpose of 786
  WTP for entries 572

user exit routine
  retry of 654,656
  scheduling of 562,650
user ID
  dump of 614
use/responsibility count
  (see also CDUSE)
  meaning 165

V=R (see virtual equals real)
V=R allocation
  residence 235
V=R Allocation routine
  description of 235
  diagram of 234
  entry-point name of 733
  module name of 723
  synopsis of 716
V=R dynamic area 678
V=R Flush routine
  description of 241
  diagram of 240
  entry-point name of 733
  module name of 724
  synopsis of 716
V=R line
  definition of 678
V=R partition queue element (PQE)
  format of 401
  use of 401
V=R region 678
V=R Region Free routine
  description of 239
  diagram of 238
  entry-point name of 733
  module name of 724
  synopsis of 716
V=R Release routine
  description of 237
  diagram of 236
  entry-point name of 733
  module name of 724
  synopsis of 716

V=V (see virtual equals virtual)
V=V dynamic area 678
V=V region 678
Validity Check routine
  description of 155
  diagram of 154
  entry-point name of 733
  module name of 725
  synopsis of 716
VALRECUR subroutine 650
VALTYMAP (validity map)
  format of 888
  purpose of 888
virtual address
  definition of 678
virtual equals real (V=R)
  dynamic area 678
  line 678
  pages
    allocation of 234
    releasing of 236
  region 678
  task 678
virtual equals virtual (V=V)
  dynamic area 678
  region 678
  task 678
virtual storage
  definition of 678
  nonpageable areas in 6
  organization of 6
  pageable areas in 6
  size of 397
  supervision of 395
virtual storage region
  definition of 678
virtual storage supervision
  description of 395
  functions of 397
  interruption handling for 397
  introduction to 395
  registers on entry and exit 927
  routines 397
virtual subarea list (VSL)
  format of 890
  purpose of 890
Visual table of contents
  contents supervision 168
  interruption supervision 37
  paging supervision 206
  task supervision 68
  termination 525
  timer supervision 500
  virtual storage supervision 411
VSL (virtual subarea list)
  format of 890
  purpose of 890
VSS (see virtual storage supervision)

WAIT routine
  description of 87
  diagram of 86
  entry-point name of 733
  module name of 726
  synopsis of 716
WAIT State codes issued by VS2
 supervisor 954
working set 678

XCTL routine
  description of 185
  diagram of 184
  entry-point name of 726
  module name of 726
XPT (external page table)
  format of 891
  purpose of 891
XPTE (external page table entry)
  format of 891
  purpose of 891
XTLST (extent list)
  construction of 170,172
  dump of 616
  format of 892
  purging of 544
  purpose of 892

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