

**Systems**

**OS/VS2 System Data Areas**

**VS2 Release 1**

**IBM**

## Preface

This publication contains reference information about the contents and format of system control blocks. Most of the control blocks in this publication are used by more than one component of the VS2 control program. The block descriptions are ordered alphabetically by acronym. When a block has different access method formats, they are arranged under the block name in the following order: SAM, ISAM, DAM, TAM, GAM, TCAM.

For compatibility with the macro instructions which map the data areas, certain fields describing non-supported functions or devices appear in the data area descriptions. This cannot be construed as a statement of IBM's intent to support such devices or features now or in the future.

Data areas relating to the paging supervisor are described in **OS/VS2 Supervisor Logic, SY27-7244**.

The reader of this manual must be familiar with the following publications:

**IBM System/370 Principles of Operation, GA22-7000**

**OS/VS Data Management Services, GC26-3783**

**OS/VS Supervisor Services and Macro Instructions, GC27-6979**

**OS/VS2 Debugging Guide, GC28-0632**

### First Edition (September, 1972)

This edition applies to Release 1 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 latest **IBM System/360 and System/370 Bibliography**, Order No. GA22-6822, and the current **SRL Newsletter**, Order No. GN20-0360, for the editions that are applicable and current.

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## System Control Blocks

System data areas are the primary means for communicating information among the major parts of the OS/VS2 control program. The information is stored in the data areas and tables in a highly compact, readily accessible form. These data areas and tables have a standardized format, so that the information is usable by all parts of the control program. The addresses maintained in the data areas permit the control program to locate other control blocks and tables.

This publication consists of descriptions of major system data areas. The field descriptions show the decimal (Dec.) and hexadecimal (Hex.) displacements of the fields. Each block description begins on a right-hand page for ease in turning to a particular data area and to segment information about different data areas into sets of separate pages; thus, users may readily remove selected parts of the publication.

### MBBCCCHHR - Actual Address Format

In VS2, the actual address for a location on a direct access storage device is expressed in the 8-byte format MBBCCCHHR. These 8 bytes contain:

- M The extent number. A one-byte binary number specifying the relative location of an entry in a data extent block (DEB). Each extent entry describes a set of contiguous tracks allocated for the data set. For the first extent, M = 0 except when ISAM is used. In that case, M = 1 for the first extent of user data.
- BB The bin number. This value is always zero.
- CCHH The CCHH number. The number that identifies a cylinder and track on a direct-access storage device.
- R The record number. The number of the record on its track.

### Page Format

The page format used to contain the data area field descriptions is shown here:

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
---------------	---------------	-------------	--------------------

This format puts field identification data to one side of the page, and thereby gives major emphasis to describing the use of the field. The longer text lines make it quicker and easier to read and contrast successive field descriptions.

The columns of the page format and their use are:

- |        |  |
|--------|--|
| OFFSET | The numeric address of the field relative to the beginning of the data area. The first number is the offset in decimal, followed by the hexadecimal equivalent in parentheses.<br>Example: 16 (10)   |
| LENGTH | The size in bytes of the field.<br><br>This column is also used to show the bit settings of flag fields, that is, the state of bits in a byte. When the column is used in this way, the setting is shown as follows:<br><br>.... .... The 8 bit positions (0 - 7) in a byte. For ease of scanning, the high order (left-hand) 4 bits are separated from the low-order 4 bits.<br><br>x... .... A reference to bit 0.<br>1... .... Bit 0 is on.<br>o... .... Bit zero is off.<br><br>.... ..xx A reference to bits 6 and 7. |

Bit settings that are significant are shown and described. Bit settings that are not presently significant are described as reserved bits. Users should not make use of these bits because future releases of VS2 may make use of them.

NAME	A name that identifies the field or bit setting. The name of a flag field is indented one space for differentiation.
DESCRIPTION	The use of the field. Where the field's use relates directly to a value coded by a user, the value coded is shown. Where the hexadecimal code for a particular bit setting would be helpful, it is shown separated from the rest of the description.

### Non-Supported Devices and Features

To maintain compatibility with the control blocks as they are mapped, fields describing non-supported devices and features are shown in this publication. They are indicated with an asterisk (\*). These items are not to be construed as statements of IBM's intent to support the devices or features named.

### Alphabetic List of Fields

At the end of most of the data areas, there is a listing of the field names and bit pattern names in alphabetic order. For the field names, the offset in decimal and hexadecimal is shown; for bit pattern names, the offset in decimal and the hexadecimal representation of the bit pattern are shown.

Examples:

UCBATI 11 (B)	A field named UCBATI at offset 11.
UCBALOC 3 X'08'	A bit pattern named UCBALOC at offset 3 with a hexadecimal value of X'08'.
SRTEVOLI *A* UCBVOLI	A field name SRTEVOLI which is an alias for a field named UCBVOLI. The offset can be found with the second field name.
52 (34)	A field at offset 52 with no field name; usually, a reserved field.

### How to Locate a Field

To locate a particular field or bit setting, you can take one of several paths. If you know the data area name and the offset, you can go directly to the field description in the listing of the data area by offset. If you know the name of the field, you can use the following table to find the data area name; then, you can use the alphabetic field list at the end of the data area to find the offset within the data area. The entries in the table are also index entries for ease in locating the data area you need.

<u>Field Prefix</u>	<u>Data Area Name</u>
CD	Contents Directory Entry
CDE	Contents Directory Entry
CVT	Communication Vector Table
DCB	Data Control Block
DEB	Data Extent Block
DEC	Data Event Control Block
DECB	Data Event Control Block
DS1	Identifier Data Set Control Block
DS2	Index Data Set Control Block
DS3	Extension Data Set Control Block
DS4	VTOC Data Set Control Block
DS5	Available Space Data Set Control Block
DS6	Shared Extent Data Set Control Block
FLC	Fixed LowCore
FL1	Data Set Label 1
FL2	Data Set Label 2
ECB	Event Control Block
ICB	Interruption Control Block

IOB	Input/Output Block
JFC	Job File Control Block
JFCB	Job File Control Block
JSCB	Job Step Control Block
LCB	Line Control Block
PDS	Partitioned Data Set Directory Entry
RB	Request Block
SCVT	Secondary Communication Vector Table
SMCA	System Management Control Area
TCB	Task Control Block
TCT	Timing Control Table
TIOT	Task Input/Output Table
UCB	Unit Control Block
VOL	Volume Label

#### TIME SHARING DATA AREAS

DPA	Driver Parameter Area
ECT	Environment Control Table
PSCB	Protected Step Control Block
TJB	Time-Sharing Job Block
TJBX	Time-Sharing Job Block Extension
TSIA	Time-Sharing Interface Area
TSCVT	Time-Sharing Communication Vector Table
UPT	User Profile Table





## Contents Directory Entry

The contents supervision feature of the supervisor determines the location of requested programs, fetches the program to storage if necessary and schedules the execution of these programs for the requesting tasks. As a byproduct of these functions, records are kept of all programs in storage.

One of these records is the contents directory entry (CDE), which describes the requested module. Each area of storage occupied by a job step has a contents directory recording each load module requested by the step. Entries in the contents directory (CDEs) contain the names of load modules and pointers to their entry points. The CDE is initialized with descriptive information from the input parameters of the request. When the module is located, its attributes are further recorded in the CDE.

If the caller has specified an alias entry point within the called module, two contents directory entries are 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.

CDEs are maintained either within a job pack area control queue (JPACQ), which is pointed to by the TCBJPQ field of the task control block, or within a link pack area control queue (LPACQ), which contains CDEs describing modules resident in the link pack area.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 CDCHAIN	SAME AS CDCHAINA BELOW
0	(0)	1 CDATTR	ATTRIBUTE FLAGS
	1...	.... CDNIP	MODULE LOADED BY NIP OR FIXED/MODIFIED LPA MODULE
	.1..	.... CDNIC	MODULE IS IN PROCESS OF BEING LOADED
	..1.	.... CDREN	MODULE IS REENTERABLE
	...1	.... CDSEB	MODULE IS SERIALLY REUSABLE
	....	1... CDNFN	MODULE IS NOT REUSABLE (NON-FUNCTIONAL)
	....	.1.. CDMIN	THIS IS A MINOR CDE
	....	..1. CDJPA	MODULE IS IN JOB PACK AREA
	....	...1 CDNLR	MODULE IS NOT LOADABLE-ONLY
1	(1)	3 CDCHAINA	ADDRESS OF NEXT CDE IN QUEUE (EITHER JPAQ OR LPAQ)
4	(4)	4 CDRRBP	SAME AS CDRRBPA BELOW
4	(4)	1 CDROLL	BITS 4-7 ARE USED TO EXTEND THE USE COUNT OF A MODULE TO 4095. THE VALUE IN THIS FIELD INDICATES THE NUMBER OF OVERFLOWS IN FIELD CDUSE.
5	(5)	3 CDRRBPA	IF THE MODULE IS REENTERABLE, THIS FIELD CONTAINS THE ADDRESS OF THE LAST RB THAT CONTROLLED THE MODULE. IF THE MODULE IS SERIALLY REUSABLE, THIS FIELD CONTAINS THE ADDRESS OF THE RB AT THE TOP OF THE WAITING (RBPGMQ) QUEUE. IF THE MODULE WAS REQUESTED ONLY THROUGH LOAD MACRO INSTRUCTIONS, CONTAINS ZERO.
8	(8)	8 CDNAME	8-BYTE NAME
16	(10)	4 CDENTPT	SAME AS CDENTPTA BELOW
16	(10)	1 CDUSE	VALUE CONTAINS THE MODULE USE COUNT AND MUST BE USED IN CONJUNCTION WITH BITS 4-7 OF CDROLL
17	(11)	3 CDENTPTA	MODULE'S RELOCATED ENTRY POINT ADDRESS
20	(14)	4 CDXMLJP	SAME AS CDXMLJPA BELOW
20	(14)	1 CDATTR2	SECOND ATTRIBUTE FIELD
	1...	.... CDSPZ	MODULE IS IN SUBPOOL ZERO
	.1..	.... CDREL	MODULE IS INACTIVE AND MAY BE RELEASED BY THE GETMAIN ROUTINE (CDPURGE)
	..1.	.... CDXLE	EXTENT LIST HAS BEEN BUILT FOR MODULE. MAIN STORAGE OCCUPIED BY MODULE IS DESCRIBED THEREIN.
	...1	.... CDRLC	THIS CDE CONTAINS A MINOR ENTRY POINT ADDRESS THAT HAS BEEN RELOCATED BY THE PROGRAM FETCH ROUTINE
	....	1... CDTSO	THIS IS A TSLPA CDE
	....	.1.. CDOLY	MODULE IS IN OVERLAY FORMAT
	....	..1. CDERSV02	RESERVED
	....	...1 CDAUTH	PROGRAM AUTHORIZATION FLAG
21	(15)	3 CDXMLJPA	EXTENT LIST ADDRESS OR MAJOR CDE ADDRESS IF THIS CDE IS A MINOR

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
CDATTR	0 (0)
CDATTR2	20 (14)
CDAUTH	20 X'01'
CDCHAIN	0 (0)
CDCHAINA	1 (1)
CDENTPT	16 (10)
CDENTPTA	17 (11)
CDERSV02	20 X'02'
CDJPA	0 X'02'
CDMIN	0 X'04'
CDNAME	8 (8)
CDNFN	0 X'08'
CDNIC	0 X'40'
CDNIP	0 X'80'
CDNLR	0 X'01'
CDOLY	20 X'04'
CDREL	20 X'40'
CDREN	0 X'20'
CDRLC	20 X'10'
CDROLL	4 (4)
CDRRBP	4 (4)
CDRRBPA	5 (5)
CDSER	0 X'10'
CDSPZ	20 X'80'
CDTSO	20 X'08'
CDUSE	16 (10)
CDXLE	20 X'20'
CDXLMJP	20 (14)
CDXLMJPA	21 (15)

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
-------------	-------------------------------

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
-------------	-------------------------------

END OF CDE



## Communication Vector Table

The communication vector table (CVT) provides the means whereby nonresident routines may refer to information in the nucleus of the control program; it contains addresses of other control blocks and tables which are used by control program routines. The

CVT is part of the fixed nucleus. During the nucleus initialization process (NIP), the address of the CVT is placed in a permanently fixed area of real storage at decimal address 16 (hexadecimal 10). The CVT address is also placed at address 76 (hexadecimal 4C). These addresses point to the CVT but are not a part of the CVT.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
BEGINNING OF CVT PREFIX			
-256 (-100)	248		RESERVED
-8 (-8)	2		RESERVED
-6 (-6)	2	CVTMDL	CPU MODEL NUMBER IN SIGNLESS PACKED DECIMAL, I.E., A MODEL 145 WOULD BE REPRESENTED AS 0145 HEX
-4 (-4)	4	CVTRELNO	OS RELEASE NUMBER (CHAR)
-4 (-4)	2	CVTNUMB	RELEASE NUMBER
-2 (-2)	2	CVTLEVEL	RELEASE LEVEL
END OF CVT PREFIX			
0 (0)	4	CVTTCBP	ADDR OF NEXT AND CURRENT TCB POINTER LIST (IEATCBP)
4 (4)	4	CVT0EF00	ADDR OF ROUTINE TO SCHEDULE ASYNCHRONOUS EXITS (IEA0EF00)
8 (8)	4	CVTLINK	ADDR OF SYS1.LINKLIB DCB (IEFLINK)
12 (C)	4	CVTJOB	ADDR OF SYS1.JOBQE DCB (IEFJOB)
16 (10)	4	CVTBUF	ADDR OF BUFFER FOR RESIDENT CONSOLE INTERRUPTION ROUTINE
20 (14)	4	CVTXAPG	ADDR OF IOS APPENDAGE VECTOR TABLE (IECXAPG)
24 (18)	4	CVT0VL00	ENTRY POINT ADDR OF ADDR VALIDITY CHECKING ROUTINE FOR SUPERVISOR (IEA0VL00)
28 (1C)	4	CVTPCNVT	ENTRY POINT ADDR OF ROUTINE FOR CONVERTING RELATIVE TRACK ADDR TO ABSOLUTE (IEPCNVT)
32 (20)	4	CVTPRLTV	ENTRY POINT ADDR OF ROUTINE FOR CONVERTING ABSOLUTE TRACK ADDR TO RELATIVE (IECPRLTV)
36 (24)	4	CVTILK1	ADDR OF CHANNEL AND CONTROL UNIT SECTION IN UCB LOOKUP TABLE (IECILK1)
40 (23)	4	CVTILK2	ADDR OF UCB HALFWORD ADDR LIST SECTION IN UCB LOOKUP TABLE (IECILK2)
44 (2C)	4	CVTXTLER	ENTRY POINT ADDR TO XCTL ROUTINE FOR SYSTEM ERROR TRANSIENT AREA ROUTINES (IECXTLER)
48 (30)	4	CVTSYSAD	ADDR OF SYSTEM RESIDENCE VOLUME <del>ENTRY IN UCB LOOKUP TABLE</del>
52 (34)	4	CVTBTERM	ENTRY POINT ADDR OF ABTERM ROUTINE (IEA0AB00)
56 (38)	4	CVTDATE	LOCAL DATE IN PACKED DECIMAL
60 (3C)	4	CVTMSLT	ADDR OF MASTER COMMON AREA PLEASE USE CVTMSER INSTEAD TO ADDRESS MASTER SCHEDULER RESIDENT DATA AREA (IEEMSER)
64 (40)	4	CVTZDTAB	ADDR OF I/O DEVICE CHARACTERISTIC TABLE (IECZDTAB)
68 (44)	4	CVTXITP	ADDR OF ERROR INTERPRETER ROUTINE (IECXITP)
72 (48)	4	CVTDAR	SAME AS CVTDARA BELOW
72 (48)	1	CVTFLGS1	FLAG BYTE
	1...	.... CVTDMPLK	SVC DUMP IS IN PROGRESS
	.1..	.... CVTRSV01	RESERVED
	..1.	.... CVTRSV02	RESERVED
	...1	.... CVTRSV03	RESERVED
	....	1... CVTRSV04	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	.... .1..	CVTRSV05	RESERVED
	.... ..1.	CVTRSV06	RESERVED
	.... ...1	CVTRSV07	RESERVED
73	(49)	3 CVTDARA	ADDR OF SYS1.DUMP I/O CONTROL BLOCKS FOR DAMAGE ASSESSMENT ROUTINES (VS1) ADDRESS OF DCB FOR SYS1.DUMP DATA SET (VS2)
76	(4C)	4 CVT0FN00	RESERVED (VS2)
84	(54)	4 CVTSVDCB	ADDR OF SYS1.SVCLIB DCB (IEASVDCB)
88	(58)	4 CVTTPC	ADDR OF TIMER SUPERVISOR WORK AREA (IEATPC)
92	(5C)	4 CVTPBLDL	BALR ENTRY POINT ADDR OF BLDL (IECPBLDL)
96	(60)	4 CVTSJQ	RESERVED (VS2)
100	(64)	4 CVTCUCB	ADDR OF TABLE CONTAINING CONSOLE UCB ADDR (IEECUCB)
104	(68)	4 CVTQTE00	ADDR OF TIMER ENQUEUE ROUTINE FOR INTERVAL TIMER (IEAQTE00)
108	(6C)	4 CVTQTD00	ADDR OF TIMER DEQUEUE ROUTINE FOR INTERVAL TIMER (IEAQTD00)
112	(70)	4 CVTSTB	ADDR OF I/O DEVICE STATISTIC TABLE (IECSTB)
116	(74)	1 CVTDCB	OPERATING SYSTEM
	1... ....	CVTRSV08	RESERVED
	.1.. ....	CVT1SS	OPTION 1
	..1. ....	CVT2SPS	OPTION 2 , VS1
	...1 ....	CVT4MS1	OPTION 4, VS2
	.... 1...	CVTRSV09	RESERVED
	.... .1..	CVT4MPS	NOT USED
	.... ..1.	CVT6DAT	DYNAMIC ADDRESS TRANSLATION BY CPU (VS1, VS2)
	.... ...1	CVTRSV10	RESERVED
117	(75)	3 CVTDCBA	ADDR OF DCB FOR SER SYS1.LOGREC (IFBDCB)
120	(78)	4 CVTIOQET	ADDR OF I/O QUEUE ELEMENT TABLE (IECIOQET)
124	(7C)	4 CVTIXAVL	ADDR OF I/O SUPERVISOR FREELIST POINTER (IECIXAVL)
128	(80)	4 CVTNUCB	LOWEST ADDRESS NOT IN NUCLEUS. ON PAGE BDY
132	(84)	4 CVTFBOSV	ADDR OF PROGRAM FETCH ROUTINE (IEWFBOSV)
136	(88)	4 CVT0DS	ENTRY POINT ADDR OF DISPATCHER (IEA0DS)
140	(8C)	4 CVTILCH	ADDR OF LOGICAL CHANNEL WORD TABLE (IECILCH)
144	(90)	4 CVTIERLC	ADDR OF ASYNCHRONOUS EXIT QUEUE (IECIERLC)
148	(94)	4 CVTMSER	ADDR OF MASTER SCHEDULER RESIDENT DATA AREA (IEEMSER)
152	(98)	4 CVTOPT01	BRANCH ENTRY POINT ADDR OF POST ROUTINE (IEA0PT01)
156	(9C)	4 CVTRSV11	RESERVED
160	(A0)	4 CVTHEAD	ADDR OF FIRST TCB ON READY QUEUE (IEAHEAD)
164	(A4)	1 CVTMZ00	HIGHEST ADDRESS IN VIRTUAL STORAGE
168	(A8)	4 CVT1EF00	ADDRESS OF ROUTINE WHICH CREATES IRB'S FOR EXITS
172	(AC)	4 CVTQOCR	ADDR OF SEVENTH GFX PARM LIST WORD (0 IF GFX INACTIVE) VS2
176	(B0)	4 CVTQMWR	ADDR OF QMGR COMMUNICATION DATA AREA (IEFQMWR)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
180	(B4)	2 CVTSNCTR	SERIAL DATA SET SEQUENCE NUMBER COUNTER
182	(B6)	1 CVTOPTA	MISCELLANEOUS FLAGS
	1...	.... CVTCCH	CCH OPTION PRESENT
	.1..	.... CVTAPR	AUTOMATIC PATH RETRY -- I/O RECOVERY MANAGEMENT
	..1.	.... CVTDDR	DYNAMIC DEVICE RECONFIGURATION -- I/O RECOVERY MANAGEMENT
	...1	.... CVTNIP	NIP RUNNING
	....	1... CVTRSV12	RESERVED
	....	.1.. CVTRSV13	RESERVED
	....	..1. CVTASCI	USAS(CI)I OPTION PRESENT
	....	...1 CVTXPPF	CPU HAS EXTENDED PRECISION FLOATING POINT
183	(B7)	1 CVTOPTB	MISCELLANEOUS FLAGS
	1...	.... CVTPROT	STORE PROTECTION SYSGENED (VS1)
	.1..	.... CVTRSV14	RESERVED
	..1.	.... CVTTOD	CPU HAS TIME OF DAY CLOCK
	...1	.... CVTNLOG	SYS1.LOGREC UNAVAILABLE FOR ERROR RECORDING
	....	1... CVTAPTHR	NIP SETS TO 1 WHEN DEVICE TESTING IS COMPLETE. IF 1, IOS WILL USE AN ALTERNATE PATH TO A DEVICE ON CONDITION CODE 3. THIS IS RESET BY NIP WHEN THE LPA IS INITIALIZED.
	....	.1.. CVTFP	FETCH PROTECT IS ACTIVE (VS1)
	....	..1. CVTRSV16	RESERVED
	....	...1 CVTRSV17	RESERVED
184	(B8)	4 CVTQCDSR	CDE SEARCH ROUTINE ADDR (IEAQCDJR)
188	(BC)	4 CVTQLPAQ	ADDRESS OF POINTER TO MOST RECENT ENTRY ON LPA CDE QUEUE (IEAQLPAQ)
192	(C0)	4 CVTRSV18	RESERVED
196	(C4)	4 CVTSMCA	ADDR OF SYSTEM MGT CONTROL AREA
200	(C8)	4 CVTABEND	ADDR OF SECONDARY CVT FOR ABEND IN EOT (VS2) (IEABEND)
204	(CC)	4 CVTUSER	A WORD TO THE USER
208	(D0)	4 CVTMDLDS	RESERVED FOR MODEL-DEPENDENT SUPPORT
216	(D8)	4 CVTTSCE	ADDR OF FIRST TIME SLICE CONTROL ELEMENT
220	(DC)	4 CVTPATCH	ADDR OF FE PATCH AREA (IEAPATCH)
224	(E0)	4 CVTRMS	ADDR OF RMS VECTOR TABLE (IGFRVT)
228	(E4)	4 CVTTSCVT	ADDR OF TIME SHARING CVT (TSO)
228	(E4)	1 CVTTSFLG	TIME SHARING FLAGS (TSO)
	1...	.... CVTTSRDY	TIME SHARING READY
	.1..	.... CVTRSV19	RESERVED
	..1.	.... CVTRSV20	RESERVED
	...1	.... CVTRSV21	RESERVED
	....	1... CVTRSV22	RESERVED
	....	.1.. CVTRSV23	RESERVED
	....	..1. CVTRSV24	RESERVED
	....	...1 CVTRSV25	RESERVED
229	(E5)	3 CVTTSCVB	ADDR OF TIME SHARING CVT (TSO)
232	(E8)	4 CVT0SCR1	ADDR OF RPS SECTOR CONVERTER
236	(EC)	4 CVTGTF	GTF CONTROL WORD
236	(EC)	1 CVTGTFST	GTF FLAG BYTES
	11..	.... CVTGTF5	GTF STATUS
	....	.... CVTGTFIN	GTF NOT ACTIVE
	1...	.... CVTGTFSP	GTF STOPPING



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
.1..	....	CVTGTFSR	GTF STARTING
11..	....	CVTGTFAC	GTF ACTIVE
..1.	....	CVTSTATE	GTF IN CONTROL PROCESSING A HOOK
...1	....	CVTTMODE	IF 0 - MODE=INT IF 1 - MODE=EXT
....	1..	CVTFORM	FORMAT TRACE TABLE AT ABEND
....	.1..	CVTUSR	TRACE=USR SPECIFIED
....	..1.	CVTRSV26	RESERVED
....	...1	CVTRSV27	RESERVED
237	(ED)	3 CVTGTFA	ADDRESS OF MONITOR CALL VECTOR TABLE (AHLHCTQ)
240	(F0)	4 CVTAQAVT	PTR TO WORD CONTAINING ADDR OF TCAM ADDRESS VECTOR TABLE
240	(F0)	1 CVTTCMFG	TCAM FLAGS
	1... ..	CVTTCRDY	TCAM RUNNING (VS2)
	.1.. ..	CVTRSV28	RESERVED
	..1. ....	CVTRSV29	RESERVED
	...1 ....	CVTRSV30	RESERVED
	.... 1...	CVTRSV31	RESERVED
	.... .1..	CVTRSV32	RESERVED
	.... ..1.	CVTRSV33	RESERVED
	.... ...1	CVTRSV34	RESERVED
241	(F1)	3 CVTAQAVB	SAME AS CVTAQVT ABOVE
244	(F4)	4 CVTTATA	ADDR OF TCB ADDR TAB (P0 TCB POINTER)
244	(F4)	1 CVTTSKS	MAXIMAL NUMBER OF TCB ADDR TAB ENTRIES
245	(F5)	3 CVTTAT	ADDR OF TCB ADDR TAB (P0 TCB POINTER)
248	(F8)	1 CVTSYST	NUMBER OF SYSGENED TCB ADDR TAB ENTRIES
249	(F9)	3	RESERVED
252	(FC)	4 CVTEXT1	ADDRESS OF OS-VS COMMON EXTENSION
256	(100)	4 CVTCBSP	ADDRESS OF ACCESS METHOD CONTROL BLOCK STRUCTURE. IF ZERO, IT INDICATES THAT THE ACCESS METHOD MASTER CATALOG IS NOT OPEN'ED AND AVAILABLE
260	(104)	4 CVTPURG	POINTER TO SUBSYSTEM PURGE ROUTINE
260	(104)	1 CVTRSV35	RESERVED
261	(105)	3 CVTPURGA	ADDRESS OF SUBSYSTEM PURGE ROUTINE
264	(108)	4 CVTAMFF	RESERVED FOR ACCESS METHOD FLAGS
268	(10C)	4 CVTQMSG	POINTER TO INFORMATION TO BE PRINTED BY ABEND
268	(10C)	1 CVTRSV36	RESERVED
269	(10D)	3 CVTQMSGA	ADDRESS OF INFORMATION TO BE PRINTED BY ABEND (IEAQMSG)
272	(110)	4 CVTDMSR	SAME AS CVTDMSRA BELOW
272	(110)	1 CVTRSV37	RESERVED
273	(111)	3 CVTDMSRA	ADDRESS OF OPEN/CLOSE/EOV SUPERVISORY ROUTINE
276	(114)	4 CVTRSV38	RESERVED
280	(118)	4 CVTRSV39	RESERVED
		VS1 - VS2	COMMON SECTION
284	(11C)	4 CVTREAL	ADDRESS OF THE VIRTUAL STORAGE BYTE FOLLOWING THE HIGHEST VIRTUAL=REAL STORAGE ADDRESS

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
288	(120)	4 CVTPTRV	ADDRESS OF PAGING SUPERVISOR GENERAL ROUTINE TO TRANSLATE REAL ADDRESSES TO VIRTUAL (IEAPTRV)
292	(124)	4 CVTMODE	ADDRESS OF ROUTINE TO CHANGE SYSTEM MASK (IEAMODBR)
296	(128)	4 CVTJESCT	ADDRESS OF JES CONTROL TABLE (IEFJESCT)
300	(12C)	4	RESERVED (OS/VS2)
304	(130)	4 CVTTZ	DIFFERENCE BETWEEN LOCAL TIME AND GREENWICH MEAN TIME (BIT 31 = 1.048576 SEC)
308	(134)	4 CVTMCHPR	ADDRESS OF MACHINE CHECK PARAMETER LIST
312	(138)	4 CVTEORM	HIGHEST REAL ADDRESS IN STORAGE
316	(13C)	4 CVTERPV	POINTER TO SUBROUTINE IN IOS TO CONVERT CCW DATA ADDRESSES TO VIRTUAL ADDRESSES (IEAERPV)
320	(140)	4 CVTINTLA	ADDRESS OF AREA CONTAINING INTERVAL LENGTH AT WHICH I/O LOAD BALANCING EXCP COUNTS AND RATES ARE COMPUTED (IEAEXINT)
324	(144)	4 CVTAPF	SAME AS CVTAPFA BELOW
324	(144)	1 CVTRSV40	RESERVED
325	(145)	3 CVTAPFA	ADDRESS OF BRANCH ENTRY POINT IN APF ROUTINE (IEAVTEST)
328	(148)	4 CVTEXT2	ADDRESS OF VS1 - VS2 COMMON EXTENSION
328	(148)	1 CVTRSV41	RESERVED
329	(149)	3 CVTEXT2A	SAME AS CVTEXT2 ABOVE
332	(14C)	4 CVTHJES	SAME AS CVTHJESA BELOW
332	(14C)	1 CVTRSV42	RESERVED
333	(14D)	3 CVTHJESA	ADDRESS OF OPTIONAL JOB ENTRY SYSTEM COMMUNICATION VECTOR TABLE
336	(150)	2 CVTRSV43	RESERVED
338	(152)	2 CVTRSV44	RESERVED
340	(154)	4 CVTRSV45	RESERVED
344	(158)	4 CVTRSV46	RESERVED
		VS2 OVERLAY	
348	(15C)	4 CVTRVA2	RESERVED
352	(160)	4 CVTLPDSR	ADDRESS OF LPA DIRECTORY SEARCH ROUTINE (IEAVMSR)
356	(164)	4 CVTPVTP	ADDRESS OF PAGE VECTOR TABLE (CSECPVT)
360	(168)	4 CVTLPDIA	ADDRESS OF LPA DIRECTORY. ON PAGE BDY
360	(168)	1 CVTDIRST	FLAG BYTE
	1...	.... CVTDICOM	LPA DIRECTORY HAS BEEN INITIALIZED BY NIP
	.1..	.... CVTRSV63	RESERVED
	..1.	.... CVTRSV64	RESERVED
	...1	.... CVTRSV65	RESERVED
	....	1... CVTRSV66	RESERVED
	....	.1.. CVTRSV67	RESERVED
	....	..1. CVTRSV68	RESERVED
	....	...1 CVTRSV69	RESERVED
361	(169)	3 CVTLPDIR	ADDRESS OF LPA DIRECTORY. ON PAGE BDY

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
364	(16C)	4 CVTPAGE1	ADDRESS OF DCB FOR PRIMARY PAGING DATA SET
368	(170)	4 CVTPGSUP	ADDRESS OF TCB FOR PAGING SUPERVISOR (IHAPGTCB)
372	(174)	4 CVTSLIDA	IDENTITY OF TCB CAUSING SUPERVISOR LOCK BYTE (CVTSYLK) TO BE SET OR IDENTITY OF TCB THAT SECOND EXIT PROCESSING IS FOR WHEN CVTSEIC=1
372	(174)	1 CVTSYLK	SUPERVISOR LOCK. ONLY ENABLED TASKS MAY BE DISPATCHED
	1111	1111 CVTSYLKS	SET LOCK BYTE
	....	.... CVTSYLKR	RESET LOCK BYTE
373	(175)	3 CVTSLID	SAME AS CVTSLIDA ABOVE
376	(178)	4 CVTSER	SAME AS CVTSERA BELOW
376	(178)	1 CVTSEFLG	SECOND EXIT FLAGS
	1...	.... CVTSEIC	INDICATES THAT PAGING SUPERVISOR HAS BRANCHED TO A SECOND EXIT ROUTINE
	.1..	.... CVTRSV70	RESERVED
	..1.	.... CVTRSV71	RESERVED
	...1	.... CVTRSV72	RESERVED
	....	1... CVTRSV73	RESERVED
	....	.1.. CVTRSV74	RESERVED
	....	..1. CVTRSV75	RESERVED
	....	...1 CVTRSV76	RESERVED
377	(179)	3 CVTSERA	SECOND EXIT ROUTINE ADDRESS THAT WILL BE BRANCHED TO BY ABTERM PROLOGUE SHOULD THE SECOND EXIT ROUTINE PROGRAM CHECK
380	(17C)	16 CVTSEG	SEGMENT TABLE INFORMATION
380	(17C)	4 CVTSEGA	VIRTUAL ADDRESS OF USER SEGMENT TABLE
384	(180)	4 CVTSEGB	VIRTUAL ADDRESS OF SYSTEM SEGMENT TABLE
388	(184)	4 CVTSEGC	REAL ADDRESS OF USER SEGMENT TABLE
388	(184)	1 CVTSEGLC	LENGTH IN 64-BYTE UNITS OF USER SEGMENT TABLE
389	(185)	3 CVTSEGCA	REAL ADDRESS OF USER SEGMENT TABLE
392	(188)	4 CVTSEGD	REAL ADDRESS OF SYSTEM SEGMENT TABLE
392	(188)	1 CVTSEGLD	LENGTH IN 64-BYTE UNITS OF SYSTEM SEGMENT TABLE
393	(189)	3 CVTSEGDA	REAL ADDRESS OF SYSTEM SEGMENT TABLE
396	(18C)	1 CVTRSV77	RESERVED
397	(18D)	1 CVTSPVLK	NUMBER OF TASKS WHICH HAVE TERMINATED WHILE OWNING SUPERVISOR LOCK WITHOUT OPERATOR HAVING YET BEEN NOTIFIED
398	(18E)	1 CVTCTLFG	SYSTEM CONTROL FLAGS
	1...	.... CVTPSIC	PAGING SUPERVISOR IN CONTROL
	.1..	.... CVTAPGB	APG IS ACTIVE
	..1.	.... CVTRSV78	RESERVED
	...1	.... CVTDSTAT	DEVSTAT OPTION IN EFFECT. DEVICE ADDRESS FOR 2319-3330-2314 CAN VARY ACROSS SYSTEMS
	....	1... CVTRSV79	RESERVED
	....	.1.. CVTRSV80	RESERVED
	....	..1. CVTGTRCE	GTF HAS SUPPRESSED SUPERVISOR TRACE
	....	...1 CVTSDTRC	SVC DUMP HAS SUPPRESSED SUPERVISOR TRACE
399	(18F)	1 CVTAPG	DISPATCHING PRIORITY OF APG.
404	(194)	4 CVTRSCN	ADDRESS OF ROUTINE TO SCAN TCB TREE (IEATRSCN)
408	(198)	4 CVTTAS	ADDRESS OF ROUTINE TO TRANSFER ADDRESS SPACE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
412 (19C)	4	CVTPVALD	ADDRESS OF ROUTINE TO CHECK ADDRESSES AS BEING IN A REGION (IEAOVL02)
416 (1A0)	4	CVTSHRVM	LOWEST ADDRESS OF SHARED VIRTUAL STORAGE AREA. THIS ADDRESS WILL BE EITHER THE BEGINNING OF LPA DIRECTORY OR THE BEGINNING OF LPA UPDATE AREA IF 'MLPA' OPTION WAS USED AT SUPERVISOR INITIALIZATION
420 (1A4)	4	CVTOVL01	ENTRY POINT ADDRESS OF VALIDITY CHECK ROUTINE (IEAOVL01) USED TO COMPARE PROTECT KEY OF AN ADDRESS WITH TCB PROTECT KEY (IEAOVL01)
424 (1A8)	4	CVTPFIXQ	BRANCH ENTRY TO IEAPFIXQ, THE FIX-QUIESCE ROUTINE USED BY TSO BEFORE SWAP TO FREE ALL SVC FIXES (IEAPFIXQ)
428 (1AC)	4	CVTPFIXR	BRANCH ENTRY TO IEAPFIXR, THE FIX-RESTORE ROUTINE USED BY TSO AFTER SWAP (INVERSE OF FIX-QUIESCE) (IEAPFIXR)
432 (1B0)	4	CVTPFIXP	BRANCH ENTRY TO IEAPFIXP, THE FIX-PURGE ROUTINE USED BY STAE, ABEND, ETC., TO GET RID OF OUTSTANDING FIX REQUESTS (IEAPFIXP)
436 (1B4)	4	CVTPTCD	BRANCH ENTRY TO IEAPTCD, THE PAGE-TABLE-CREATE-DESTROY ROUTINE USED BY TSO LOGOFF IN DOING A PSEUDO-FREEPART (IEAPTCD)
440 (1B8)	4	CVTSYSWT	ADDRESS OF THE SMF SYSTEM WAIT TIME COLLECTION AREA (SYSWSAVE)
444 (1BC)	2	CVTRSV81	RESERVED
446 (1BE)	2	CVTRSV82	RESERVED
448 (1C0)	4	CVTRSV83	RESERVED
452 (1C4)	4	CVTRSV84	RESERVED
456 (1C8)	4	CVTRSV85	RESERVED
460 (1CC)	4	CVTRSV86	RESERVED
		OS - VS COMMON	EXTENSION ADDRESS OF EXTENSION IS IN CVTEXT1
+0 (0)	4	CVTFACHN	ADDRESS OF CHAIN OF DCB FIELD AREAS (ISAM)
+4 (4)	4	CVTRSV87	RESERVED
+8 (8)	4	CVTRSV88	RESERVED
		VS1 - VS2	COMMON EXTENSION ADDRESS OF EXTENSION IS IN CVTEXT2
+0 (0)	4	CVTDSSV	ADDRESS OF THE DSS VECTOR TABLE
+0 (0)	1	CVTRSV89	RESERVED
+1 (1)	3	CVTDSSVA	ADDRESS OF THE DSS VECTOR TABLE (IQADSV00)
+4 (4)	1	CVTNUCLS	USED TO IDENTIFY THE NUCLEUS MEMBER NAME
+5 (5)	1	CVTRSV90	RESERVED
	1...	.... CVTRSV9A	RESERVED
	.1..	.... CVTRSV9B	RESERVED
	..1.	.... CVTRSV9C	RESERVED
	...1	.... CVTRSV9D	RESERVED
	....	1... CVTRSV9E	RESERVED
	....	.1.. CVTRSV9F	RESERVED
	....	..1. CVTRSV9G	RESERVED
	....	...1 CVTRSV9H	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+6	( 6 )	2 CVTRSV91	RESERVED
+8	( 8 )	4 CVTDEBVR	ADDRESS OF BRANCH ENTRY POINT OF DEBCHK VERIFY ROUTINE (IFGDEBVR)
+12	( C )	4 CVTRSV92	RESERVED
+16	( 10 )	4 CVTRSV93	RESERVED
+20	( 14 )	4 CVTRSV94	RESERVED
+24	( 18 )	4 CVTQID	SAME AS CVTQIDA BELOW
+24	( 18 )	1 CVTRSV95	RESERVED
+25	( 19 )	3 CVTQIDA	ADDRESS OF QID TABLE PREFIX
+28	( 1C )	4 CVTOLTEP	POINTER TO CONTROL BLOCK CREATED BY SVC 59 TO POINT TO PSEUDO-DEB'S
+32	( 20 )	2 CVTRSV96	RESERVED
+34	( 22 )	2 CVTRSV97	RESERVED
+36	( 24 )	4 CVTRSV98	RESERVED
+40	( 28 )	4 CVTRSV99	RESERVED
+44	( 2C )	4 CVTRVA0	RESERVED
+48	( 30 )	4 CVTRVA1	RESERVED

END OF CVT

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	-256 (-100)	CVTILK1	36 (24)	CVTRSVA2	348 (15C)
	-8 (-8)	CVTILK2	40 (28)	CVTRSV01	72 X'40'
	249 (F9)	CVTINTLA	320 (140)	CVTRSV02	72 X'20'
	300 (12C)	CVTIOQET	120 (78)	CVTRSV03	72 X'10'
CVTABEND	200 (C8)	CVTIXAVL	124 (7C)	CVTRSV04	72 X'08'
CVTAMFF	264 (108)	CVTJESCT	296 (128)	CVTRSV05	72 X'04'
CVTAPF	324 (144)	CVTJOB	12 (C)	CVTRSV06	72 X'02'
CVTAPFA	325 (145)	CVTLEVL	-2 (-2)	CVTRSV07	72 X'01'
CVTAPG	399 (18F)	CVTLINK	8 (8)	CVTRSV08	116 X'80'
CVTAPGB	398 X'40'	CVTLPDIA	360 (168)	CVTRSV09	116 X'08'
CVTAPR	182 X'40'	CVTLPDIR	361 (169)	CVTRSV10	116 X'01'
CVTAPTHR	183 X'08'	CVTLPDSR	352 (160)	CVTRSV11	156 (9C)
CVTAQAVB	241 (F1)	CVTMCHPR	308 (134)	CVTRSV12	182 X'08'
CVTAQAVT	240 (F0)	CVTMDL	-6 (-6)	CVTRSV13	182 X'04'
CVTASCI I	182 X'02'	CVTMDLDS	208 (D0)	CVTRSV14	183 X'40'
CVTBTERM	52 (34)	CVTMODE	292 (124)	CVTRSV16	183 X'02'
CVTBUF	16 (10)	CVTMSER	148 (94)	CVTRSV17	183 X'01'
CVTCBSP	256 (100)	CVTMSLT	60 (3C)	CVTRSV18	192 (C0)
CVTCCH	182 X'80'	CVTMZ00	164 (A4)	CVTRSV19	228 X'40'
CVTCTLFG	398 (18E)	CVTNIP	182 X'10'	CVTRSV20	228 X'20'
CVTCUCB	100 (64)	CVTNLOG	183 X'10'	CVTRSV21	228 X'10'
CVTDAR	72 (48)	CVTNUCB	128 (80)	CVTRSV22	228 X'08'
CVTDARA	73 (49)	CVTNUCLS	+4 (4)	CVTRSV23	228 X'04'
CVTDATE	56 (38)	CVTNUMB	-4 (-4)	CVTRSV24	228 X'02'
CVTDCB	116 (74)	CVTOLTEP	+28 (1C)	CVTRSV25	228 X'01'
CVTDCBA	117 (75)	CVTOPTA	182 (B6)	CVTRSV26	236 X'02'
CVTDDR	182 X'20'	CVTOPTB	183 (B7)	CVTRSV27	236 X'01'
CVTDEBVR	+8 (8)	CVTPAGE1	364 (16C)	CVTRSV28	240 X'40'
CVTDICOM	360 X'80'	CVTPATCH	220 (DC)	CVTRSV29	240 X'20'
CVTDIRST	360 (168)	CVTPBLDL	92 (5C)	CVTRSV30	240 X'10'
CVTDMPLK	72 X'80'	CVTPCNVT	28 (1C)	CVTRSV31	240 X'08'
CVTDMSR	272 (110)	CVTPFIXP	432 (1B0)	CVTRSV32	240 X'04'
CVTDMSRA	273 (111)	CVTPFIXQ	424 (1A8)	CVTRSV33	240 X'02'
CVTDSSV	+0 (0)	CVTPFIXR	428 (1AC)	CVTRSV34	240 X'01'
CVTDSSVA	+1 (1)	CVTPGSUP	368 (170)	CVTRSV35	260 (104)
CVTDSTAT	398 X'10'	CVTPRLTV	32 (20)	CVTRSV36	268 (10C)
CVTEORM	312 (138)	CVTPROT	183 X'80'	CVTRSV37	272 (110)
CVTERPV	316 (13C)	CVTPSIC	398 X'80'	CVTRSV38	276 (114)
CVTEXT1	252 (FC)	CVTPTECD	436 (1B4)	CVTRSV39	280 (118)
CVTEXT2	328 (148)	CVTPTRV	288 (120)	CVTRSV40	324 (144)
CVTEXT2A	329 (149)	CVTPURG	260 (104)	CVTRSV41	328 (148)
CVTFACHN	+0 (0)	CVTPURGA	261 (105)	CVTRSV42	332 (14C)
CVTFBOSV	132 (84)	CVTPVALD	412 (19C)	CVTRSV43	336 (150)
CVTFLGS1	72 (48)	CVTPVTP	356 (164)	CVTRSV44	338 (152)
CVTFORM	236 X'08'	CVTQCDSR	184 (B8)	CVTRSV45	340 (154)
CVTFP	183 X'04'	CVTQID	+24 (18)	CVTRSV46	344 (158)
CVTGTF	236 (EC)	CVTQIDA	+25 (19)	CVTRSV63	360 X'40'
CVTGTF A	237 (ED)	CVTQLPAQ	188 (BC)	CVTRSV64	360 X'20'
CVTGTFAC	236 X'C0'	CVTQMSG	268 (10C)	CVTRSV65	360 X'10'
CVTGTFIN	236 X'00'	CVTQMSG A	269 (10D)	CVTRSV66	360 X'08'
CVTGTF S	236 X'C0'	CVTQMWR	176 (B0)	CVTRSV67	360 X'04'
CVTGTFSP	236 X'80'	CVTQOCR	172 (AC)	CVTRSV68	360 X'02'
CVTGTF SR	236 X'40'	CVTQTD00	108 (6C)	CVTRSV69	360 X'01'
CVTGTFST	236 (EC)	CVTQTE00	104 (68)	CVTRSV70	376 X'40'
CVTGTRCE	398 X'02'	CVTREAL	284 (11C)	CVTRSV71	376 X'20'
CVTHEAD	160 (A0)	CVTRELNO	-4 (-4)	CVTRSV72	376 X'10'
CVTHJES	332 (14C)	CVTRMS	224 (E0)	CVTRSV73	376 X'08'
CVTHJESA	333 (14D)	CVTRSCN	404 (194)	CVTRSV74	376 X'04'
CVTIERLC	144 (90)	CVTRSVA0	+44 (2C)	CVTRSV75	376 X'02'
CVTILCH	140 (8C)	CVTRSVA1	+48 (30)	CVTRSV76	376 X'01'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
CVTRSV77	396 (18C)	CVTSYSWT	440 (1B8)		
CVTRSV78	398 X'20'	CVTTAS	408 (198)		
CVTRSV79	398 X'08'	CVTTAT	245 (F5)		
CVTRSV80	398 X'04'	CVTTATA	244 (F4)		
CVTRSV81	444 (1BC)	CVTTCBP	0 (0)		
CVTRSV82	446 (1BE)	CVTTCMFG	240 (F0)		
CVTRSV83	448 (1C0)	CVTTCRDY	240 X'80'		
CVTRSV84	452 (1C4)	CVTTMODE	236 X'10'		
CVTRSV85	456 (1C8)	CVTTOD	183 X'20'		
CVTRSV86	460 (1CC)	CVTTPC	88 (58)		
CVTRSV87	+4 (4)	CVTTSCE	216 (D8)		
CVTRSV88	+8 (8)	CVTTSCVB	229 (E5)		
CVTRSV89	+0 (0)	CVTTSCVT	228 (E4)		
CVTRSV9A	+5 X'80'	CVTTSFLG	228 (E4)		
CVTRSV9B	+5 X'40'	CVTTSKS	244 (F4)		
CVTRSV9C	+5 X'20'	CVTTSRDY	228 X'80'		
CVTRSV9D	+5 X'10'	CVTTZ	304 (130)		
CVTRSV9E	+5 X'08'	CVTUSER	204 (CC)		
CVTRSV9F	+5 X'04'	CVTUSR	236 X'04'		
CVTRSV9G	+5 X'02'	CVTXAPG	20 (14)		
CVTRSV9H	+5 X'01'	CVTXITP	68 (44)		
CVTRSV90	+5 (5)	CVTXPPF	182 X'01'		
CVTRSV91	+6 (6)	CVXTLER	44 (2C)		
CVTRSV92	+12 (C)	CVTZDTAB	64 (40)		
CVTRSV93	+16 (10)	CVT0DS	136 (88)		
CVTRSV94	+20 (14)	CVT0EF00	4 (4)		
CVTRSV95	+24 (18)	CVT0FN00	76 (4C)		
CVTRSV96	+32 (20)	CVT0PT01	152 (98)		
CVTRSV97	+34 (22)	CVT0SCR1	232 (E8)		
CVTRSV98	+36 (24)	CVT0VL00	24 (18)		
CVTRSV99	+40 (28)	CVT0VL01	420 (1A4)		
CVTSDTRC	398 X'01'	CVT1EF00	168 (A8)		
CVTSEFLG	376 (178)	CVT1SSS	116 X'40'		
CVTSEG	380 (17C)	CVT2SPS	116 X'20'		
CVTSEGA	380 (17C)	CVT4MPS	116 X'04'		
CVTSEGB	384 (180)	CVT4MS1	116 X'10'		
CVTSEGC	388 (184)	CVT6DAT	116 X'02'		
CVTSEGCA	389 (185)				
CVTSEGD	392 (188)				
CVTSEGDA	393 (189)				
CVTSEGLC	388 (184)				
CVTSEGLD	392 (188)				
CVTSEIC	376 X'80'				
CVTSER	376 (178)				
CVTSERA	377 (179)				
CVTSHRVM	416 (1A0)				
CVTSJQ	96 (60)				
CVTSLID	373 (175)				
CVTSLIDA	372 (174)				
CVTSMCA	196 (C4)				
CVTSNCTR	180 (B4)				
CVTSPVLK	397 (18D)				
CVTSTATE	236 X'20'				
CVTSTB	112 (70)				
CVTSVDCB	84 (54)				
CVTSYLK	372 (174)				
CVTSYLKR	372 X'00'				
CVTSYLKS	372 X'FF'				
CVTSYSAD	48 (30)				
CVTSYST	248 (F8)				

END OF CVT





## **Data Control Block -- QSAM, BSAM, BPAM, EXCP Access Methods**

The data control block is the data area within which data pertinent to the current use of a data set is stored. There is substantial similarity between the DCB formats for use with BSAM, QSAM, BPAM, and EXCP.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
DEVICE INTERFACES			
DIRECT ACCESS DEVICES			
0	(0)	4 DCBRELAD	PARTITIONED ORGANIZATION DATA SET - ADDRESS (IN THE FORM TTRN) OF MEMBER CURRENTLY USED. --- SYS1.LOGREC DATA SET - IF CCH OPTION HAS BEEN SPECIFIED IN SYSGEN PROCESS, ADDRESS OF A 12-BYTE PARAMETER IN THE EXPANSION OF MACRO INSTRUCTION IGFCATAP
4	(4)	1 DCBKEYCN	KEYED BLOCK OVERHEAD CONSTANT
5	(5)	8 DCBFDAD	FULL DISK ADDRESS IN THE FORM OF MBBCCHHR OF RECORD THAT WAS JUST READ OR WRITTEN
12	(C)	4 DCBDVTBL	SAME AS DCBDVTBA BELOW
12	(C)	1	LAST BYTE OF DCBFDAD
13	(D)	3 DCBDVTBA	ADDRESS OF ENTRY IN I/O DEVICE CHARACTERISTICS TABLE FOR DEVICE BEING USED
16	(10)	1 DCBKEYLE	KEY LENGTH OF DATA SET
17	(11)	1 DCBDEVT	DEVICE TYPE
	..1.	...1 DCBDV311	2311 DISK DRIVE*
	..1.	..1. DCBDV301	2301 PARALLEL DRUM*
	..1.	..11 DCBDV303	2303 SERIAL DRUM*
	..1.	..1.. DCBDV302	2302 DISK STORAGE*
	..1.	..1.1 DCBDV321	2321 DATA CELL DRIVE*
	..1.	1... DCBDV314	2314 DISK STORAGE FACILITY
18	(12)	2 DCBTRBAL	TRACK BALANCE. NUMBER OF BYTES REMAINING ON CURRENT TRACK AFTER A WRITE OPERATION (THIS QUANTITY MAY BE NEGATIVE IF THERE ARE NO BYTES REMAINING ON TRACK).
MAGNETIC TAPE			
0	(0)	12	RESERVED FOR I/O SUPERVISOR
12	(C)	4 DCBBLKCT	BLOCK COUNT FOR EACH VOLUME
16	(10)	1 DCBTRTCH	TAPE RECORDING TECHNIQUE FOR 7-TRACK TAPE
	..1.	..11 DCBMTE	E - EVEN PARITY
	..11	1.11 DCBMTT	T - BCD/EBCDIC TRANSLATION
	...1	..11 DCBMTC	C - DATA CONVERSION
	..1.	1.11 DCBMTET	ET - EVEN PARITY AND TRANSLATION
17	(11)	1 DCBDEVT	DEVICE TYPE
	1...	...1 DCBDVMT	2400 SERIES MAGNETIC TAPE UNIT (7-TRACK OR 9-TRACK)
	1...	..11 DCBDVMT3	3400 SERIES MAGNETIC TAPE UNIT
18	(12)	1 DCBDEN	TAPE DENSITY - 2400 SERIES MAGNETIC TAPE UNITS CODE 7-TRACK 9-TRACK
	....	..11 DCBMTDNO	0 200 BPI -
	..1..	..11 DCBMTDN1	1 556 BPI -
	1...	..11 DCBMTDN2	2 800 BPI 800 BPI
	11..	..11 DCBMTDN3	3 - 1600 BPI
19	(13)	1	RESERVED
PAPER TAPE			
8	(8)	4 DCBLCTBL	ADDRESS OF TRANSLATE TABLE
12	(C)	4	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
16	(10)	1 DCBCODE	PAPER TAPE CODE BEING USED. THE APPROPRIATE TRANSLATE TABLE IS MADE AVAILABLE
		1... .. DCBPTCDN	N - NO CONVERSION
		.1... .. DCBPTCDI	I - IBM BCD
		..1. .... DCBPTCDF	F - FRIDEN
		...1 .... DCBPTCDB	B - BURROUGHS
		.... 1... DCBPTCDC	C - NATIONAL CASH REGISTER
		.... .1.. DCBPTCDA	A - ASCII (8-TRACK)
		.... ..1. DCBPTCDT	T - TELETYPE
17	(11)	1 DCBDEVT	DEVICE TYPE
		.1.1 .... DCBDVPTP	2671 PAPER TAPE READER
18	(12)	1	RESERVED
19	(13)	1 DCBPFLG	PAPER TAPE FLAGS
		...1 .... DCBP TIC	INVALID CHARACTER IN LAST RECORD READ
		.... 1... DCBPTECT	END OF RECORD CHARACTER REACHED IN TRANSLATION
		.... .1.. DCBPTECR	END OF RECORD CHARACTER DETECTED DURING READ
		.... ..1. DCBP TUCT	IF ONE, UPPER CASE TRANSLATE. IF ZERO, LOWER CASE TRANSLATE
		.... ...1 DCBP TERR	ERROR DETECTED ON READ
		PRINTER	
16	(10)	1 DCBPRTSP	NUMBER INDICATING NORMAL PRINTER SPACING
		.... ...1 DCBP RSP0	0 - NO SPACING
		.... 1..1 DCBP RSP1	1 - SPACE ONE LINE
		...1 ...1 DCBP RSP2	2 - SPACE TWO LINES
		...1 1..1 DCBP RSP3	3 - SPACE THREE LINES
17	(11)	1 DCBDEVT	DEVICE TYPE
		.1.. 1... DCBDVPR1	1403 PRINTER AND 1404 PRINTER (CONTINUOUS FORM SUPPORT ONLY)
		.1.. 1..1 DCBDVPR2	1443 PRINTER
		.1.. 1..1 DCBDVPR3	3211 PRINTER
18	(12)	1 DCBPRTOV	TEST-FOR-PRINTER-OVERFLOW MASK (PRTOV MASK)
		..1. .... DCBP RC9	9 - TEST FOR CHANNEL 9 OVERFLOW
		...1 .... DCBP RC12	12 - TEST FOR CHANNEL 12 OVERFLOW
19	(13)	1	RESERVED
		CARD READER, CARD PUNCH	
16	(10)	1 DCBMODE	MODE OF OPERATION FOR 1442 CARD READ PUNCH (BITS 0-3)
16	(10)	1 DCBSTACK	STACKER SELECTION (BITS 4-7)
		1... .. DCBMODEC	COLUMN BINARY MODE
		.1... .. DCBMODEE	EBCDIC MODE
		..1. .... DCBMODEO	OPTICAL MARK READ MODE
		...1 .... DCBMODER	READ COLUMN ELIMINATE MODE
		.... ..1. DCBSTCK2	STACKER 2
		.... ...1 DCBSTCK1	STACKER 1
17	(11)	1 DCBDEVT	DEVICE TYPE
		.1.. ...1 DCBDVCRO	2540 CARD READER
		.1.. ...1 DCBDVCP0	2540 CARD PUNCH
		.1.. ...11 DCBDVCRP	1442 CARD READ PUNCH
		.1.. .1.. DCBDVCR1	2501 CARD READER
		.1.. .1..1 DCBDVCPR	2520 CARD READ PUNCH
		.1.. .11. ....	3505 CARD READER
		.1.. 11.. ....	3525 CARD PUNCH
18	(12)	1 DCBPRTOV	3525 CARD PUNCH WITH PRINT FEATURE: TEST-FOR-PRINTER-OVERFLOW MASK (PRTOV MASK)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
..1.	....	DCBPRC9	9 - TEST FOR CHANNEL 9 OVERFLOW
...1	....	DCBPRC12	12 - TEST FOR CHANNEL 12 OVERFLOW
19	(13)	1 DCBFUNC	FUNCTION INDICATOR FOR THE 3525
	1...	.... DCBFNCBI	INTERPRET (PUNCH AND PRINT TWO LINES)
	.1..	.... DCBFNCBR	READ
	..1.	.... DCBFNCBP	PUNCH
	...1	.... DCBFNCBW	PRINT
	....	1... DCBFNCBD	DATA PROTECTION
	....	.1.. DCBFNCBX	THIS DATA SET IS TO BE PRINTED
	....	..1. DCBFNCBT	TWO-LINE PRINT SUPPORT REQUEST
OPTICAL READER AND MAGNETIC CHAR READER			
0	(0)	4 DCBWTOID	SAME AS DCBWTOIA BELOW
0	(0)	1	RESERVED
1	(1)	3 DCBWTOIA	A BINARY IDENTIFICATION NUMBER ASSIGNED BY COMMUNICATIONS TASK TO MESSAGE ISSUED BY WTO MACRO. THIS NUMBER IS USED BY THE DOM MACRO WHEN MESSAGE IS NO LONGER REQUIRED (MCS SUPPORT). --- FOR MAGNETIC CHAR READER - AFTER FIRST READ HAS BEEN ISSUED, CONTAINS ADDRESS OF MAGNETIC INTERRUPT CONTROL BLOCK (MICB) BEING USED BY THE APPENDAGES.
OPTICAL READER DEVICES (1287,1288)			
4	(4)	4 DCBERRCN	SAME AS DCBERRCA BELOW
4	(4)	1	RESERVED
5	(5)	3 DCBERRCA	ADDRESS OF 32 BYTES OF DECLARED STORAGE SPECIFIED BY THE USER IN HIS PROGRAM. THIS STORAGE WILL BE USED BY THE PROGRAMMING SUPPORT AS EIGHT 4-BYTE COUNTERS IN WHICH TOTALS OF CERTAIN 1287 AND 1288 ERROR CONDITIONS ARE ACCUMULATED.
8	(8)	4 DCBDSPLY	SAME AS DCBDSPLA BELOW
8	(8)	1	RESERVED
9	(9)	3 DCBDSPLA	ADDRESS OF DSPLY (BSAM) ROUTINE USED FOR KEYBOARD ENTRY OF A COMPLETE FIELD
12	(C)	4 DCBRESCN	SAME AS DCBRESCA BELOW
12	(C)	4 DCBRDLNE	SAME AS DCBRDLNA BELOW
12	(C)	1	RESERVED
13	(D)	3 DCBRESCA	ADDRESS OF RESCN (BSAM) ROUTINE USED TO FORCE ON-LINE CORRECTION OF UNREADABLE CHARACTERS
13	(D)	3 DCBRDLNA	ADDRESS OF RDLNE (QSAM) ROUTINE USED TO FORCE ON-LINE CORRECTION OF UNREADABLE CHARACTERS
16	(10)	1 DCBORBYT	OPTICAL READER BYTE USED BY BSAM/QSAM
	1...	.... DCBORSYN	SYNAD IN CONTROL
	.1..	.... DCBOREOF	END OF FILE (EOF)
	..1.	.... DCBORBFP	BUFFERS PRIMED (QSAM)
17	(11)	1 DCBDEVT -	DEVICE TYPE
	.1.1	1.11 DCBDVOR7	1287 OPTICAL READER
	.1.1	11.. DCBDVOR8	1288 OPTICAL READER
18	(12)	1 DCBEIB	ERROR INDICATOR BYTE
	.1..	.... DCBORNRM	THE 1287 OR 1288 SCANNER WAS UNABLE TO LOCATE THE REFERENCE MARK

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
..1. ....		DCBORREJ	FOR 1287, A STACKER SELECT COMMAND WAS GIVEN AFTER ALLOTTED TIME HAD ELAPSED AND THE DOCUMENT HAS BEEN PUT IN REJECT POCKET. FOR 1288 UNFORMATTED ONLY, END-OF-PAGE HAS OCCURRED.
...1 ....		DCBORERR	A NONRECOVERABLE ERROR HAS OCCURRED.
.... 1...		DCBORECK	AN EQUIPMENT CHECK RESULTED IN AN INCOMPLETE READ
.... .1..		DCBORWLR	A WRONG-LENGTH RECORD CONDITION HAS OCCURRED
.... ..1.		DCBORHPR	FOR QSAM - OPERATOR ENTERED ONE OR MORE CHARACTERS FROM THE KEYBOARD. FOR BSAM - A HOPPER EMPTY CONDITION HAS OCCURRED
.... ...1		DCBORDCK	A DATA CHECK HAS OCCURRED
19 (13)	1		RESERVED
		MAGNETIC CHARACTER READER DEVICES	
			1419 MAGNETIC CHARACTER READER 1275 OPTICAL READER SORTER
0 (0)	8	DCBSSID	BEFORE DCB IS OPENED - NAME OF USER'S STACKER SELECT ROUTINE.
0 (0)	4		AFTER DCB IS OPENED - DCBWTOID
4 (4)	4	DCBSSAD	ADDRESS OF USER'S STACKER SELECT ROUTINE
4 (4)	1		RESERVED
5 (5)	3	DCBSSADA	ADDRESS OF USER'S STACKER SELECT ROUTINE
8 (8)	4	DCBIMAGE	SAME AS DCBIMAGA BELOW
8 (8)	1	DCBMRFG	BUFFER INDICATOR
11.. ....		DCBMRBCT	TWO-BIT BINARY COUNTER WHICH INDICATES INTO WHICH BUFFER STATUS INFORMATION IS TO BE POSTED
9 (9)	3	DCBIMAGA	ADDRESS OF PARAMETER LIST USED TO COMMUNICATE BETWEEN USER'S PROCESSING ROUTINES AND HIS STACKER SELECT ROUTINES
12 (C)	4	DCBECBLT	SAME AS DCBECBLA BELOW
12 (C)	1	DCBMRIND	INDICATOR AND COUNTER BYTE
111. ....		DCBMRDCT	THREE-BIT BINARY COUNTER OF NUMBER OF DOCUMENTS READ AFTER DISENGAGE
...1 ....		DCBMRSCU	DCB WAS ALTERED WHEN SYNAD ROUTINE WAS ENTERED DUE TO SECONDARY CONTROL UNIT (SCU) ERROR
.... 1...		DCBMRPLO	POCKET LIGHT HAS BEEN TURNED ON
.... .1..		DCBMRPLS	POCKET LIGHT 0-6 IS BEING SET ON
.... ..1.		DCBMRERP	ERROR RECOVERY PROCEDURE IS EXECUTING FOR PRIMARY CONTROL UNIT (PCU)
.... ...1		DCBMRERS	ERROR RECOVERY PROCEDURE IS EXECUTING FOR SECONDARY CONTROL UNIT (SCU)
13 (D)	3	DCBECBLA	ADDRESS OF ECB LIST PASSED TO WAIT MACRO BY CHECK MACRO WHEN NO 1419/1275 IS AVAILABLE FOR PROCESSING
16 (10)	1	DCBMRFLG	FLAG BYTE
1... ....		DCBMRSCC	FIRST OR SECOND SECONDARY CONTROL UNIT COMMAND CHAIN IS BEING USED
.1.. ....		DCBMRDBG	DEBUGGING MODE IN USE
..1. ....		DCBMRDRU	DISENGAGE REQUESTED BY USER
...1 ....		DCBMRDR	DISENGAGE REQUESTED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	11..	DCBMRPCC	TWO-BIT BINARY COUNTER INDICATING FIRST, SECOND OR THIRD PRIMARY CONTROL UNIT COMMAND CHAIN IS BEING USED
....	..1.	DCBMRDWT	WTO MESSAGE MUST BE DELETED
....	...1	DCBMRUE	UNIT EXCEPTION
17	(11)	1	DCBDEVT - DEVICE TYPE
	.1.1	11.1	DCBDVMR 1419 MAGNETIC CHARACTER READER
	.1.1	1111	DCBDVORS 1275 OPTICAL READER SORTER
18	(12)	1	DCBAPPIN AN INDICATOR USED BY THE APPENDAGES TO PASS INFORMATION ABOUT ONE CHANNEL CHAIN TO AN APPENDAGE ASSOCIATED WITH ANOTHER CHANNEL CHAIN
19	(13)	1	RESERVED
			ACCESS METHOD COMMON INTERFACE
16	(10)	4	DCBRELB SAME AS DCBREL BELOW
16	(10)	1	DCBKEYLE KEY LENGTH OF DATA SET
17	(11)	1	DCBDEVT DEVICE TYPE
	.1..	1111	DCBDVTRM TERMINAL. (DD CONTAINS TERM=TS)
17	(11)	3	DCBREL NUMBER OF RELATIVE TRACKS OR BLOCKS IN THIS DATA SET (BDAM)
20	(14)	4	DCBBUFCB ADDRESS OF BUFFER POOL CONTROL BLOCK
20	(14)	1	DCBBUFNO NUMBER OF BUFFERS REQUIRED FOR THIS DATA SET. MAY RANGE FROM 0 TO 255. IF UNBLOCKED SPANNED RECORDS ARE USED, NUMBER OF SEGMENT WORK AREAS REQUIRED FOR THIS DATA SET.
21	(15)	3	DCBBUFCA ADDRESS OF BUFFER POOL CONTROL BLOCK
24	(18)	2	DCBBUFL LENGTH OF BUFFER. MAY RANGE FROM 0 TO 32,767.
26	(1A)	2	DCBDSORG DATA SET ORGANIZATION BEING USED
26	(1A)	1	DCBDSRG1 FIRST BYTE OF DCBDSORG
	1...	....	DCBDSGIS IS - INDEXED SEQUENTIAL ORGANIZATION
	.1..	....	DCBDSGPS PS - PHYSICAL SEQUENTIAL ORGANIZATION
	..1.	....	DCBDSGDA DA - DIRECT ORGANIZATION
	....	1...	DCBDSGCQ RESERVED
	....	.1..	DCBDSGMQ RESERVED
	....	..1.	DCBDSGPO PO - PARTITIONED ORGANIZATION
	....	..1	DCBDSGU U - UNMOVABLE, THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
27	(1B)	1	DCBDSRG2 SECOND BYTE OF DCBDSORG
	1...	....	DCBDSGGS GS - GRAPHICS ORGANIZATION
	.1..	....	DCBDSGTX TX - TCAM LINE GROUP
	..1.	....	DCBDSGTQ TQ - TCAM MESSAGE QUEUE
28	(1C)	4	DCBIOBAD ADDRESS OF IOB WHEN CHAINED SCHEDULING IS USED OR FOR 1419/1275
28	(1C)	4	DCBODEB ADDRESS OF OLD DEB
28	(1C)	1	DCBLNP 3525 PRINTER LINE POSITION COUNTER
28	(1C)	1	DCBQSLM QSAM LOCATE MODE LOGICAL RECORD INTERFACE INDICATOR BYTE FOR UPDAT PROCESSING OF SPANNED RECORDS
	1...	....	DCB1DVDS ONLY ONE DEVICE IS ALLOCATED TO THIS DATA SET
	.1..	....	DCBUPDCM UPDATE COMPLETE, FREE OLD DEB
	..11	....	DCBUPDBT UPDATE BITS
	..1.	....	DCBUPDT UPDATE TO TAKE PLACE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	..11	.... DCBNUPD	NO UPDATE TO TAKE PLACE
	...1	.... DCBSVDEB	OLD DEB ADDRESS MUST BE SAVED
29	(1D)	3 DCBIOBAA	SAME AS DCBIOBAD ABOVE
29	(1D)	3 DCBODEBA	ADDRESS OF OLD DEB (SPANNED RECORDS AND 3525)
28	(1C)	4 DCBSVCXL	SAME AS DCBSVCXA BELOW
28	(1C)	1	RESERVED
29	(1D)	3 DCBSVCXA	POINTER TO EXIT LIST OF JES C.I. INTERFACE CONTROL SVC
FOUNDATION EXTENSION			
32	(20)	4 DCBEODAD	SAME AS DCBEODA BELOW
32	(20)	1 DCBHIARC	HIERARCHY BITS
32	(20)	1 DCBBFTEK	BUFFERING TECHNIQUE BITS
32	(20)	1 DCBBFALN	BUFFER ALIGNMENT BITS
	1...	.... DCBH1	HIERARCHY 1 MAIN STORAGE - BIT 5 IS ZERO*
	.111	.... DCBBFT	BUFFERING TECHNIQUE
	.11.	.... DCBBFTA	QSAM LOCATE MODE PROCESSING OF SPANNED RECORDS - OPEN IS TO CONSTRUCT A RECORD AREA IF IT AUTOMATICALLY CONSTRUCTS BUFFERS
	..1.	.... DCBBFTR	FOR BSAM CREATE BDAM PROCESSING OF UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW. FOR BSAM INPUT PROCESSING OF UNBLOCKED SPANNED RECORDS WITH KEYS - RECORD OFFSET PROCESSING.
	.1..	.... DCBBFTS	SIMPLE BUFFERING - BIT 3 IS ZERO
	..1.	.... DCBBFTKR	UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW (BDAM)
	...1	.... DCBBFTE	EXCHANGE BUFFERING - BIT 1 IS ZERO
	....	1... DCBBFTKD	DYNAMIC BUFFERING (BTAM)
	....	.1.. DCBH0	HIERARCHY 0 MAIN STORAGE - BIT 0 IS ZERO*
	....	..11 DCBBFA	BUFFER ALIGNMENT
	....	..1. DCBBFAD	DOUBLEWORD BOUNDARY
	....	...1 DCBBFAF1	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
	....	..11 DCBBFAF2	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
33	(21)	3 DCBEODA	ADDRESS OF A USER-PROVIDED ROUTINE TO HANDLE END-OF-DATA CONDITIONS
36	(24)	4 DCBEXLST	ADDRESS OF USER-PROVIDED LIST OF EXITS
36	(24)	1 DCBREFM	RECORD FORMAT
	111.	.... DCBRECLA	RECORD LENGTH INDICATOR - ASCII
	..1.	.... DCBRECD	ASCII VARIABLE RECORD LENGTH
	11..	.... DCBRECL	RECORD LENGTH INDICATOR
	1...	.... DCBRECF	FIXED RECORD LENGTH
	.1..	.... DCBREC V	VARIABLE RECORD LENGTH
	11..	.... DCBRECU	UNDEFINED RECORD LENGTH
	..1.	.... DCBRECTO	TRACK OVERFLOW
	...1	.... DCBRECBR	BLOCKED RECORDS
	....	1... DCBRECSB	FOR FIXED LENGTH RECORD FORMAT - STANDARD BLOCKS. FOR VARIABLE LENGTH RECORD FORMAT - SPANNED RECORDS
	....	.11. DCBRECCC	CONTROL CHARACTER INDICATOR
	....	.1.. DCBRECCA	ASA CONTROL CHARACTER
	....	..1. DCBRECCM	MACHINE CONTROL CHARACTER
	....	.... DCBRECC	NO CONTROL CHARACTER
	....	...1 DCBRECKL	KEY LENGTH (KEYLEN) WAS SPECIFIED IN DCB MACRO INSTRUCTION

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
37	(25)	3 DCBEXLSA	ADDRESS OF USER-PROVIDED LIST OF EXITS FOUNDATION BEFORE OPEN
40	(28)	8 DCBDDNAM	NAME ON THE DD STATEMENT WHICH DEFINES THE DATA SET ASSOCIATED WITH THIS DCB
48	(30)	1 DCBOFLGS	FLAGS USED BY OPEN ROUTINE
	1...	.... DCBOFLWR	IF ZERO, LAST I/O OPERATION WAS READ OR POINT. IF ONE, LAST I/O OPERATION WAS WRITE.
	1...	.... DCBOFIOD	DATA SET IS BEING OPENED FOR INPUT OR OUTPUT (BDAM)
	.1..	.... DCBOFLRB	LAST I/O OPERATION WAS IN READ BACKWARD MODE
	..1.	.... DCBOFEV	SET TO 1 BY EOVS WHEN IT CALLS CLOSE ROUTINE FOR CONCATENATION OF DATA SETS WITH UNLIKE ATTRIBUTES
	...1	.... DCBOFOPN	AN OPEN HAS BEEN SUCCESSFULLY COMPLETED
	....	1... DCBOFPPC	SET TO 1 BY PROBLEM PROGRAM TO INDICATE CONCATENATION OF UNLIKE ATTRIBUTES
	....	.1.. DCBOFTM	TAPE MARK HAS BEEN READ
	....	..1. DCBOFUEX	SET TO 0 BY AN I/O SUPPORT FUNCTION WHEN THAT FUNCTION TAKES A USER EXIT. SET TO ON RETURN FROM USER EXIT TO THE I/O SUPPORT FUNCTION WHICH TOOK THE EXIT.
	....	...1 DCBOFIOF	SET TO 1 BY AN I/O SUPPORT FUNCTION IF DCB IS TO BE PROCESSED BY THAT FUNCTION
49	(31)	1 DCBIFLG	FLAGS USED BY IOS IN COMMUNICATING ERROR CONDITIONS AND IN DETERMINING CORRECTIVE PROCEDURES
	11..	.... DCBIBEC	ERROR CORRECTION INDICATOR
	....	.... DCBIFNEP	NOT IN ERROR PROCEDURE
	.1..	.... DCBEX	ERROR CORRECTION OR IOS PAGE FIX IN PROCESS
	11..	.... DCBIFPEC	PERMANENT ERROR CORRECTION
	..11	.... DCBIBPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	..1.	.... DCBIFC9	CHANNEL 9 PRINTER CARRIAGE TAPE PUNCH SENSED
	...1	.... DCBIFC12	CHANNEL 12 PRINTER CARRIAGE TAPE PUNCH SENSED
	....	11.. DCBIBIOE	IOS ERROR ROUTINE USE INDICATOR
	....	.... DCBIFER	ALWAYS USE I/O SUPERVISOR ERROR ROUTINE
	....	.1.. DCBIFNE1	NEVER USE I/O SUPERVISOR ERROR ROUTINE
	....	.1.. DCBIFTIM	TEST IOS MASK (IMSK) FOR ERROR PROCEDURE (BTAM)
	....	1... DCBIFNE2	NEVER USE I/O SUPERVISOR ERROR ROUTINE
	....	11.. DCBIFNE3	NEVER USE I/O SUPERVISOR ERROR ROUTINE
50	(32)	2 DCBMACR	MACRO INSTRUCTION REFERENCE
50	(32)	1 DCBMACR1	FIRST BYTE OF DCBMACR
	1...	.... DCBMRECP	EXECUTE CHANNEL PROGRAM (EXCP) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, QISAM, BDAM) --- RESERVED (BTAM)
	.1..	.... DCBMRFE	FOUNDATION EXTENSION IS PRESENT (EXCP)
	.1..	.... DCBMRGET	GET (QSAM, QISAM, TCAM)
	.1..	.... DCBMRPTQ	PUT FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (BTAM)
	..1.	.... DCBMRAPG	APPENDAGES ARE REQUIRED (EXCP)
	..1.	.... DCBMRRD	READ (BSAM, BPAM, BISAM, BDAM, BTAM)
	..1.	.... DCBMRWRQ	WRITE FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM)
	...1	.... DCBMRCI	COMMON INTERFACE (EXCP)
	...1	.... DCBMRMVG	MOVE MODE OF GET (QSAM, QISAM)
	...1	.... DCBMRRDK	KEY SEGMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BSAM, BPAM, BTAM)
	....	1... DCBMRLCG	LOCATE MODE OF GET (QSAM, QISAM)



OFFSET	LENGTH	NAME	DESCRIPTION
....	1...	DCBMRRDI	ID ARGUMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
....	.1..	DCBMRABC	USER'S PROGRAM MAINTAINS ACCURATE BLOCK COUNT (EXCP)
....	.1..	DCBMRPT1	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
....	.1..	DCBMRSBG	SUBSTITUTE MODE OF GET (QSAM)
....	.1..	DCBMRDBF	DYNAMIC BUFFERING (BISAM, BDAM) --- ALWAYS ZERO (QISAM) --- RESERVED (BTAM)
....	..1.	DCBPGFXA	PAGE FIX APPENDAGE IS SPECIFIED (EXCP)
....	..1.	DCBMRCRL	CNTRL (BSAM, QSAM)
....	..1.	DCBMRCHK	CHECK (BISAM)
....	..1.	DCBMRRDX	READ EXCLUSIVE (BDAM) --- RESERVED (BPAM, QISAM, BTAM)
....	...1	DCBMRDMG	DATA MODE OF GET (QSAM)
....	...1	DCBMRCK	CHECK (BDAM) --- RESERVED (EXCP, BSAM, BPAM, BISAM, QISAM, BTAM)
51	(33)	1 DCBMACR2	SECOND BYTE OF DCBMACR
	1...	.... DCBMRSTL	SETL (QISAM) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
	.1..	.... DCBMRPUT	PUT (QSAM, TCAM) - PUT OR PUTX (QISAM)
	.1..	.... DCBMRGTQ	GET FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
	..1.	.... DCBMRWRT	WRITE (BSAM, BPAM, BISAM, BDAM, BTAM)
	..1.	.... DCBMRRDQ	READ FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM) --- RESERVED (EXCP)
	...1	.... DCBMRMVP	MOVE MODE OF PUT (QSAM, QISAM)
	...1	.... DCBMRWRK	KEY SEGMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
	....	1... DCBMR5WD	FIVE-WORD DEVICE INTERFACE (EXCP)
	....	1... DCBMRLDM	LOAD MODE BSAM (CREATE BDAM DATA SET) (BSAM)
	....	1... DCBMR LCP	LOCATE MODE OF PUT (QSAM, QISAM)
	....	1... DCBMRIDW	ID ARGUMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
	....	.1.. DCBMR4WD	FOUR-WORD DEVICE INTERFACE (EXCP)
	....	.1.. DCBMRPT2	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
	....	.1.. DCBMR TMD	SUBSTITUTE MODE (QSAM)
	....	.1.. DCBMRUIP	UPDATE IN PLACE (PUTX) (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BDAM, BTAM)
	....	..1. DCBMR3WD	THREE-WORD DEVICE INTERFACE (EXCP)
	....	..1. DCBMRCTL	CNTRL (BSAM, QSAM)
	....	..1. DCBMRSTK	SETL BY KEY (QISAM)
	....	..1. DCBMR AWR	ADD TYPE OF WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
	....	...1 DCBMR1WD	ONE-WORD DEVICE INTERFACE (EXCP)
	....	...1 DCBMRSWA	USER'S PROGRAM HAS PROVIDED A SEGMENT WORK AREA POOL (BSAM CREATE BDAM, BDAM)
	....	...1 DCBMRDMD	DATA MODE (QSAM)
	....	...1 DCBMRSTI	SETL BY ID (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)

FOUNDATION AFTER OPEN

40	(28)	2	DCBTIOT	OFFSET FROM TIOT ORIGIN TO TIOELNGH FIELD IN TIOT ENTRY FOR DD STATEMENT ASSOCIATED WITH THIS DCB
42	(2A)	2	DCBMACRF	SAME AS DCBMACR BEFORE OPEN
42	(2A)	.1	DCBMACF1	FIRST BYTE OF DCBMACRF
43	(2B)	1	DCBMACF2	SECOND BYTE OF DCBMACRF

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
44	(2C)	4 DCBDEBAD	ADDRESS OF ASSOCIATED DEB
44	(2C)	1 DCBIFLGS	SAME AS DCBIFLG BEFORE OPEN
	11..	.... DCBIFEC	ERROR CORRECTION INDICATOR
	..11	.... DCBIFPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	....	11.. DCBIFIOE	IOS ERROR ROUTINE USE INDICATOR
45	(2D)	3 DCBDEBA	ADDRESS OF ASSOCIATED DEB
48	(30)	4 DCBREAD	ADDRESS OF READ MODULE
48	(30)	4 DCBWRITE	ADDRESS OF WRITE MODULE
48	(30)	4 DCBGET	ADDRESS OF GET MODULE
48	(30)	4 DCBPUT	ADDRESS OF PUT MODULE EXCP WITH EXTENSION OR APPENDAGES
52	(34)	1 DCBOPTCD	OPTION CODES
53	(35)	7	RESERVED
			EXCP APPENDAGE LIST
60	(3C)	2 DCBEOEA	END OF EXTENT APPENDAGE ID
62	(3E)	2 DCBPCIA	PROGRAM CONTROLLED INTERRUPTION APPENDAGE ID
64	(40)	2 DCBSIOA	START I/O APPENDAGE ID
66	(42)	2 DCBCENDA	CHANNEL END APPENDAGE ID
68	(44)	2 DCBXENDA	ABNORMAL END APPENDAGE ID
70	(46)	2	RESERVED
			QSAM-BSAM-BPAM COMMON INTERFACE
52	(34)	4 DCBGERR	ADDRESS OF SYNCHRONIZING ROUTINE FOR GET
52	(34)	4 DCBPERR	ADDRESS OF SYNCHRONIZING ROUTINE FOR PUT
52	(34)	4 DCBCHECK	ADDRESS OF CHECK MODULE
52	(34)	1 DCBOPTCD	OPTION CODES
	1...	.... DCBOPTW	WRITE VALIDITY CHECK (DASD) (BSAM, BPAM, QSAM, ISAM, BDAM)
	.1..	.... DCBOPTU	ALLOW DATA CHECK CAUSED BY INVALID CHARACTER (1403 PRINTER WITH UCS FEATURE) (BSAM, BPAM, QSAM)
	..1.	.... DCBOPTC	CHAINED SCHEDULING USING PCI (BSAM, BPAM, QSAM)
	...1	.... DCBOPTH	1287/1288 OPTICAL READER - HOPPER EMPTY EXIT (BSAM, BPAM)
	...1	.... DCBOPTO	1287 OPTICAL READER - ON-LINE CORRECTION (QSAM)
	...1	.... DCBBCKPT	CHANNEL-END APPENDAGE IS TO BYPASS DOS EMBEDDED CHECKPOINT RECORDS ON TAPE (BSAM, QSAM)
	....	1... DCBOPTQ	TRANSLATION TO OR FROM ASCII (BSAM, BPAM, QSAM)
	....	.1.. DCBOPTZ	MAGNETIC TAPE DEVICES - USE REDUCED ERROR RECOVERY PROCEDURE (EXCP, BSAM, BPAM, QSAM)
	....	.1.. DCBSRCHD	USE SEARCH DIRECT, INSTEAD OF SEARCH PREVIOUS, ON RECORD POSITION SENSING DEVICE (EXCP, BSAM, BPAM, QSAM)
	....	..1. DCBOPTT	USER TOTALING (BSAM, QSAM)
53	(35)	3 DCBGERRA	ADDRESS OF SYNCHRONIZING ROUTINE FOR GET
53	(35)	3 DCBPERRA	ADDRESS OF SYNCHRONIZING ROUTINE FOR PUT
53	(35)	3 DCBCHCKA	ADDRESS OF CHECK MODULE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
56	(38)	4 DCBSYNAD	ADDRESS OF USER-PROVIDED SYNAD ROUTINE
56	(38)	1 DCBIOBL	IOB LENGTH IN DOUBLE WORDS
57	(39)	3 DCBSYNA	ADDRESS OF USER-PROVIDED SYNAD ROUTINE
60	(3C)	1 DCBFLAG1	TCAM APPLICATION PROGRAM FLAGS (BSAM, BPAM, QSAM)
60	(3C)	1 DCBCIND1	CONDITION INDICATORS
	1...	.... DCBCNTOV	DIRECT ACCESS - TRACK OVERFLOW IN USE (BSAM, BPAM, QSAM) 2540 CARD PUNCH - DATA SET WAS OPENED BUT NO DATA WAS WRITTEN (QSAM)
	1...	.... DCBSTQCK	STOP EQUAL QUICK WAS SPECIFIED FOR APPLICATION PROG. DCBS (TCAM)
	.1..	.... DCBSTFLS	STOP EQUAL FLUSH WAS SPECIFIED FOR APPLICATION PROG. DCBS (TCAM)
	.1..	.... DCBCNSRD	SEARCH DIRECT (BSAM, BPAM, QSAM)
	..1.	.... DCBCNEVB	END OF VOLUME - USED BY EOB ROUTINES (BSAM, BPAM, QSAM)
	...1	.... DCBCNEVA	END OF VOLUME - USED BY CHANNEL-END APPENDAGE ROUTINES (BSAM, BPAM, QSAM)
	....	.1.. DCBCNBRM	BLOCKED RECORD BIT MODIFIED (BSAM, BPAM, QSAM)
	....	...1 DCBCNEXB	EXCHANGE BUFFERING SUPPORTED (QSAM)
61	(3D)	1 DCBCIND2	CONDITION INDICATORS
	1...	.... DCBCNSTO	PARTITIONED DATA SET - STOW HAS BEEN PERFORMED (BSAM, BPAM, QSAM) SEQUENTIAL DATA SET - UPDATE (BSAM, BPAM)
	.1..	.... DCBCNWR0	DIRECT ORGANIZATION DATA SET - LAST I/O WAS A WRITE RECORD ZERO (BSAM, BPAM, QSAM) SEQUENTIAL DATA SET - UPDATE EOF IS INDICATED (BSAM, BPAM)
	..1.	.... DCBCNCLO	CLOSE IN PROCESS (QSAM)
	...1	.... DCBCNIOE	PERMANENT I/O ERROR (BSAM, BPAM, QSAM)
	....	1... DCBCNBFP	OPEN ACQUIRED BUFFER POOL (BSAM, BPAM, QSAM)
	....	.1.. DCBCNCHS	CHAINED SCHEDULING BEING SUPPORTED (BSAM, BPAM, QSAM)
	....	..1. DCBCNFEO	FEOV BIT (BSAM, BPAM, QSAM)
	....	...1 DCBCNQSM	ALWAYS ZERO (BSAM, BPAM) THIS IS A QSAM DCB (QSAM)
62	(3E)	2 DCBBLKSI	MAXIMUM BLOCK SIZE
64	(40)	1 DCBWCPO	OFFSET OF WRITE CHANNEL PROGRAM FROM THE START OF IOB
65	(41)	1 DCBWCPL	LENGTH OF WRITE CHANNEL PROGRAM
66	(42)	1 DCBOFFSR	OFFSET OF READ CCW FROM BSAM/BPAM PREFIX OF IOB
67	(43)	1 DCBOFFSW	OFFSET OF WRITE CCW FROM BSAM/BPAM PREFIX OF IOB
68	(44)	4 DCBIOBA	FOR NORMAL SCHEDULING, ADDRESS OF QSAM OR BSAM/BPAM PREFIX OF IOB. FOR CHAINED SCHEDULING, ADDRESS OF IOB FOR 1419/1275, ADDRESS OF MAGNETIC INTERRUPT CONTROL BLOCK (MICB) CURRENTLY BEING PROCESSED BY READ ROUTINE. FOR TSO TERMINAL DATA SET OPENED FOR INPUT AND FORMAT U, SIMULATED LOW-ORDER FOUR BYTES OF IOBCSW
68	(44)	4 DCBCICB	SAME AS DCBCICBA BELOW
68	(44)	1 DCBNCP	(BSAM, BPAM)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
69	(45)	3 DCBCICBA	POINTER TO JES C.I.CONTROL BLOCK (CICB)
80	(50)	2 DCBDIRCT	NUMBER OF BYTES USED IN LAST DIRECTORY BLOCK (RANGE 0-254) (BSAM, BPAM)
80	(50)	1 DCBQSW	FLAG BYTE
80	(50)	1 DCBUSASI	FLAG BYTE FOR ASCII TAPES
	.1.. ....	DCBBLBP	BLOCK PREFIX IS FOUR BYTE FIELD CONTAINING BLOCK LENGTH IN UNPACKED DECIMAL (SPECIFIED BY BUFFER=L).
	..11 1...	DCBQADFS	USED TO PERFORM SEQUENCE CHECKING WITH MULTIPLE FUNCTION SUPPORT FOR 3525 (BSAM, QSAM)
	..1. ....	DCBQADF1	FIRST BIT OF DCBQADFS
	...1 ....	DCBQADF2	SECOND BIT OF DCBQADFS
	.... 1...	DCBQADF3	THIRD BIT OF DCBQADFS
	.... ...1	DCBQSTRU	TRUNC ENTRY POINT ENTERED (QSAM)
81	(51)	1 DCBBUFOF	BLOCK PREFIX LENGTH (0-99), SPECIFIED BY BUFOFF=N OR BUFOFF=L
81	(51)	1 DCBDIRCQ	NUMBER OF BYTES USED IN LAST DIRECTORY BLOCK (RANGE 0-254) (QSAM)
BSAM-BPAM INTERFACE			
72	(48)	4 DCBEOBR	ADDRESS OF END-OF-BLOCK MODULE FOR READ
72	(48)	1 DCBNCP	NUMBER OF CHANNEL PROGRAMS. NUMBER OF READ OR WRITE REQUESTS WHICH MAY BE ISSUED PRIOR TO A CHECK, NUMBER OF IOB'S GENERATED. (99 MAXIMUM)
73	(49)	3 DCBEOBRA	ADDRESS OF END-OF-BLOCK MODULE FOR READ
76	(4C)	4 DCBEOBW	ADDRESS OF END-OF-BLOCK MODULE FOR WRITE. FOR BSAM CREATE BDAM PROCESSING OF UNBLOCKED SPANNED RECORDS WITH BKTEK=R SPECIFIED, ADDRESS OF SEGMENT WORK AREA CONTROL BLOCK
80	(50)	2	DCBDIRCT - NUMBER OF BYTES USED IN LAST DIRECTORY BLOCK (RANGE 0-254)
82	(52)	2 DCBLRECL	LOGICAL RECORD LENGTH
84	(54)	4 DCBCNTRL	ADDRESS OF CNTRL MODULE
84	(54)	4 DCBNOTE	ADDRESS OF NOTE/POINT MODULE
84	(54)	4 DCBPOINT	ADDRESS OF NOTE/POINT MODULE
QSAM INTERFACE			
72	(48)	4 DCBLCCW	FOR EXCHANGE BUFFERING, ADDRESS OF LAST CCW IN LIST
72	(48)	4 DCBEOBAD	FOR SIMPLE BUFFERING, ADDRESS OF LAST BYTE OF CURRENT BUFFER
76	(4C)	4 DCBCCCW	FOR EXCHANGE BUFFERING, ADDRESS OF CURRENT OR NEXT CCW
76	(4C)	4 DCBRECAD	ADDRESS OF CURRENT OR NEXT LOGICAL RECORD
76	(4C)	1 DCBRECBT	FLAG BYTE
	1111 ....	DCBRCREL	RELSE MACRO HAS BEEN ISSUED (QSAM WITH SIMPLE BUFFERING)
	1... ....	DCBRCTRU	TRUNC MACRO HAS BEEN ISSUED (QSAM LOCATE MODE)
	.1.. ....	DCBRFCGT	FIRST GET AFTER OPEN (QSAM LOCATE MODE)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
77	(4D)	3 DCBRECA	ADDRESS OF CURRENT OR NEXT LOGICAL RECORD
80	(50)	1	DCBQSW - FLAG BYTE
81	(51)	1	DCBDIRCQ - NUMBER OF BYTES USED IN LAST DIRECTORY BLOCK (RANGE 0-254)
82	(52)	2	DCBLRECL - LOGICAL RECORD LENGTH
84	(54)	1 DCBEROPT	ERROR OPTION
	1... ..	DCBERACC	ACCEPT PERMANENT ERROR
	.1... ..	DCBERSKP	SKIP PERMANENT ERROR
	..1. ....	DCBERABE	ABNORMAL END OF TASK
85	(55)	3	DCBCNTRA - ADDRESS OF CNTRL MODULE
88	(58)	2	RESERVED
90	(5A)	2 DCBPRECL	BLOCK LENGTH, MAXIMUM BLOCK LENGTH OR DATA LENGTH
92	(5C)	4 DCBEOB	ADDRESS OF END OF BLOCK MODULE

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	12 (C)	DCBCHCKA	53 (35)	DCBDVPTP	17 X'50'
	16 (10)	DCBCHECK	52 (34)	DCBDVTBA	13 (D)
	17 (11)	DCBCICB	68 (44)	DCBDVTBL	12 (C)
	0 (0)	DCBCICBA	69 (45)	DCBDVTRM	17 X'4F'
	17 (11)	DCBCIND1	60 (3C)	DCBDV301	17 X'22'
	19 (13)	DCBCIND2	61 (3D)	DCBDV302	17 X'24'
	12 (C)	DCBCNBFP	61 X'08'	DCBDV303	17 X'23'
	17 (11)	DCBCNBRM	60 X'04'	DCBDV311	17 X'21'
	18 (12)	DCBCNCHS	61 X'04'	DCBDV314	17 X'28'
	17 (11)	DCBCNCLO	61 X'20'	DCBDV321	17 X'25'
	19 (13)	DCBCNEVA	60 X'10'	DCBECBLA	13 (D)
	17 (11)	DCBCNEVB	60 X'20'	DCBECBLT	12 (C)
	18 (12)	DCBCNEXB	60 X'01'	DCBEIB	18 (12)
	0 (0)	DCBCNFEO	61 X'02'	DCBEOB	92 (5C)
	4 (4)	DCBCNIOE	61 X'10'	DCBEOBAD	72 (48)
	8 (8)	DCBCNQSM	61 X'01'	DCBEOBR	72 (48)
	12 (C)	DCBCNSRD	60 X'40'	DCBEOBRA	73 (49)
	17 (11)	DCBCNSTO	61 X'80'	DCBEOBW	76 (4C)
	19 (13)	DCBCNTOV	60 X'80'	DCBEODA	33 (21)
	0 (0)	DCBCNTRL	84 (54)	DCBEODAD	32 (20)
	4 (4)	DCBCNWRO	61 X'40'	DCBEOEA	60 (3C)
	17 (11)	DCBCODE	16 (10)	DCBERABE	84 X'20'
	19 (13)	DCBDDNAM	40 (28)	DCBERACC	84 X'80'
	28 (1C)	DCBDEBA	45 (2D)	DCBEROPT	84 (54)
	52 (34)	DCBDEBAD	44 (2C)	DCBERRCA	5 (5)
	53 (35)	DCBDEN	18 (12)	DCBERRCN	4 (4)
	70 (46)	DCBDEVT	17 (11)	DCBERSKP	84 X'40'
	68 (44)	DCBDIRCQ	81 (51)	DCBEX	49 X'40'
	80 (50)	DCBDIRCT	80 (50)	DCBEXLSA	37 (25)
	80 (50)	DCBDSGCQ	26 X'08'	DCBEXLST	36 (24)
	81 (51)	DCBDSGCX	26 X'10'	DCBFDAD	5 (5)
	82 (52)	DCBDSGDA	26 X'20'	DCBFLAG1	60 (3C)
	85 (55)	DCBDSGGS	27 X'80'	DCBFNCBD	19 X'08'
	88 (58)	DCBDSGIS	26 X'80'	DCBFNCBI	19 X'80'
DCBACBM	27 X'08'	DCBDSGMQ	26 X'04'	DCBFNCBP	19 X'20'
DCBAPPIN	18 (12)	DCBDSGPO	26 X'02'	DCBFNCBR	19 X'40'
DCBBCKPT	52 X'10'	DCBDSGPS	26 X'40'	DCBFNCBT	19 X'02'
DCBBFA	32 X'03'	DCBDSGTQ	27 X'20'	DCBFNCBW	19 X'10'
DCBBFAD	32 X'02'	DCBDSGTX	27 X'40'	DCBFNCBX	19 X'04'
DCBBFAF1	32 X'01'	DCBDSGU	26 X'01'	DCBFUNC	19 (13)
DCBBFAF2	32 X'03'	DCBDSORG	26 (1A)	DCBGERR	52 (34)
DCBBFALN	32 (20)	DCBDSPLA	9 (9)	DCBGERRA	53 (35)
DCBBFT	32 X'70'	DCBDSPLY	8 (8)	DCBGET	48 (30)
DCBBFTA	32 X'60'	DCBDSRG1	26 (1A)	DCBHIARC	32 (20)
DCBBFTE	32 X'10'	DCBDSRG2	27 (1B)	DCBH0	32 X'04'
DCBBFTEK	32 (20)	DCBDVCPR	17 X'45'	DCBH1	32 X'80'
DCBBFTKD	32 X'08'	DCBDVCP0	17 X'42'	DCBIBEC	49 X'C0'
DCBBFTKR	32 X'20'	DCBDVCRP	17 X'43'	DCBIBIOE	49 X'0C'
DCBBFTR	32 X'20'	DCBDVCR0	17 X'41'	DCBIBPCT	49 X'30'
DCBBFTS	32 X'40'	DCBDVCR1	17 X'44'	DCBIFC12	49 X'10'
DCBBLBP	80 X'40'	DCBDVMR	17 X'5D'	DCBIFC9	49 X'20'
DCBBLKCT	12 (C)	DCBDVMT	17 X'81'	DCBIFEC	44 X'C0'
DCBBLKSI	62 (3E)	DCBDVMT3	17 X'83'	DCBIFER	49 X'00'
DCBBUFCA	21 (15)	DCBDVORS	17 X'5F'	DCBIFIOE	44 X'0C'
DCBBUFCB	20 (14)	DCBDVOR5	17 X'5A'	DCBIFLG	49 (31)
DCBBUFL	24 (18)	DCBDVOR7	17 X'5B'	DCBIFLGS	44 (2C)
DCBBUFNO	20 (14)	DCBDVOR8	17 X'5C'	DCBIFNEP	49 X'00'
DCBBUFOF	81 (51)	DCBDVPR1	17 X'48'	DCBIFNE1	49 X'04'
DCBCCCW	76 (4C)	DCBDVPR2	17 X'4A'	DCBIFNE2	49 X'08'
DCBCENDA	66 (42)	DCBDVPR3	17 X'49'	DCBIFNE3	49 X'0C'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DCBIFPCT	44 X'30'	DCBMRPLS	12 X'04'	DCBOPTZ	52 X'04'
DCBIFPEC	49 X'C0'	DCBMRPTQ	50 X'40'	DCBORBFP	16 X'20'
DCBIFTIM	49 X'04'	DCBMRPT1	50 X'04'	DCBORBYT	16 (10)
DCBIMAGA	9 (9)	DCBMRPT2	51 X'04'	DCBORDCK	18 X'01'
DCBIMAGE	8 (8)	DCBMRPUT	51 X'40'	DCBORECK	18 X'08'
DCBIOBA	68 (44)	DCBMRRD	50 X'20'	DCBOREOF	16 X'40'
DCBIOBAA	29 (1D)	DCBMRRDI	50 X'08'	DCBORERR	18 X'10'
DCBIOBAD	28 (1C)	DCBMRRDK	50 X'10'	DCBORHPR	18 X'02'
DCBIOBL	56 (38)	DCBMRRDQ	51 X'20'	DCBORNRM	18 X'40'
DCBKEYCN	4 (4)	DCBMRRDX	50 X'02'	DCBORREJ	18 X'20'
DCBKEYLE	16 (10)	DCBMRSBG	50 X'04'	DCBORSYN	16 X'80'
DCBLCCW	72 (48)	DCBMRSCC	16 X'80'	DCBORWLR	18 X'04'
DCBLCTBL	8 (8)	DCBMRSCU	12 X'10'	DCBPCIA	62 (3E)
DCBLNP	28 (1C)	DCBMRSTI	51 X'01'	DCBPERR	52 (34)
DCBLRECL	82 (52)	DCBMRSTK	51 X'02'	DCBPERRA	53 (35)
DCBMACF1	42 (2A)	DCBMRSTL	51 X'80'	DCBPGFXA	50 X'02'
DCBMACF2	43 (2B)	DCBMRSWA	51 X'01'	DCBPOINT	84 (54)
DCBMACR	50 (32)	DCBMR TMD	51 X'04'	DCBPRC12	18 X'10'
DCBMACRF	42 (2A)	DCBMRUE	16 X'01'	DCBPRC9	18 X'20'
DCBMACR1	50 (32)	DCBMRUIP	51 X'04'	DCBPRECL	90 (5A)
DCBMACR2	51 (33)	DCBMRWRK	51 X'10'	DCBPRSP0	16 X'01'
DCBMODE	16 (10)	DCBMRWRQ	50 X'20'	DCBPRSP1	16 X'09'
DCBMODEC	16 X'80'	DCBMRWRT	51 X'20'	DCBPRSP2	16 X'11'
DCBMODEE	16 X'40'	DCBMR1WD	51 X'01'	DCBPRSP3	16 X'19'
DCBMODEO	16 X'20'	DCBMR3WD	51 X'02'	DCBPRTOV	18 (12)
DCBMODER	16 X'10'	DCBMR4WD	51 X'04'	DCBPRTSP	16 (10)
DCBMRABC	50 X'04'	DCBMR5WD	51 X'08'	DCBPTCDA	16 X'04'
DCBMRAPG	50 X'20'	DCBMT C	16 X'13'	DCBPTCDB	16 X'10'
DCBMRARW	51 X'02'	DCBMTDNO	18 X'03'	DCBPTCDC	16 X'08'
DCBMRBCT	8 X'C0'	DCBMTDN1	18 X'43'	DCBPTCDF	16 X'20'
DCBMRCHK	50 X'02'	DCBMTDN2	18 X'83'	DCBPTCDI	16 X'40'
DCBMRCI	50 X'10'	DCBMTDN3	18 X'C3'	DCBPTCDN	16 X'80'
DCBMRCK	50 X'01'	DCBMT E	16 X'23'	DCBPTCDT	16 X'02'
DCBMRCL	50 X'02'	DCBMTET	16 X'2B'	DCBPTECR	19 X'04'
DCBMRCTL	51 X'02'	DCBMTT	16 X'3B'	DCBPTECT	19 X'08'
DCBMRDBF	50 X'04'	DCBNCP	72 (48)	DCBPTErr	19 X'01'
DCBMRDBG	16 X'40'	DCBNOTE	84 (54)	DCBP TFLG	19 (13)
DCBMRDCT	12 X'E0'	DCBNUPD	28 X'30'	DCBP TIC	19 X'10'
DCBMRDMD	51 X'01'	DCBODEB	28 (1C)	DCBP TUCT	19 X'02'
DCBMRDMG	50 X'01'	DCBODEBA	29 (1D)	DCBPUT	48 (30)
DCBMRDR	16 X'10'	DCBOFEOV	48 X'20'	DCBQADFS	80 X'38'
DCBMRDRU	16 X'20'	DCBOFFSR	66 (42)	DCBQADF1	80 X'20'
DCBMRDWT	16 X'02'	DCBOFFSW	67 (43)	DCBQADF2	80 X'10'
DCBMRECP	50 X'80'	DCBOFIOD	48 X'80'	DCBQADF3	80 X'08'
DCBMRERP	12 X'02'	DCBOFIOF	48 X'01'	DCBQSLM	28 (1C)
DCBMRERS	12 X'01'	DCBOFLGS	48 (30)	DCBQSTRU	80 X'01'
DCBMRFE	50 X'40'	DCBOFLRB	48 X'40'	DCBQSWs	80 (50)
DCBMRFG	8 (8)	DCBOFLWR	48 X'80'	DCBRCFGT	76 X'40'
DCBMRFLG	16 (10)	DCBOFOPN	48 X'10'	DCBRCREL	76 X'F0'
DCBMRGET	50 X'40'	DCBOFPPC	48 X'08'	DCBRCTRU	76 X'80'
DCBMRGTQ	51 X'40'	DCBOFTM	48 X'04'	DCBRDLNA	13 (D)
DCBMRIDW	51 X'08'	DCBOFUEX	48 X'02'	DCBRDLNE	12 (C)
DCBMRIND	12 (C)	DCBOPTC	52 X'20'	DCBREAD	48 (30)
DCBMRLCG	50 X'08'	DCBOPTCD	52 (34)	DCBRECA	77 (4D)
DCBMRLCP	51 X'08'	DCBOPTH	52 X'10'	DCBRECAD	76 (4C)
DCBMRLDM	51 X'08'	DCBOPTO	52 X'10'	DCBRECBR	36 X'10'
DCBMRMVG	50 X'10'	DCBOPTQ	52 X'08'	DCBRECBT	76 (4C)
DCBMRMVP	51 X'10'	DCBOPTT	52 X'02'	DCBRECC	36 X'00'
DCBMRPCC	16 X'0C'	DCBOPTU	52 X'40'	DCBRECCA	36 X'04'
DCBMRPLO	12 X'08'	DCBOPTW	52 X'80'	DCBRECCC	36 X'06'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DCBRECCM	36 X'02'				
DCBRECD	36 X'20'				
DCBRECF	36 X'80'				
DCBRECFM	36 (24)				
DCBRECKL	36 X'01'				
DCBRECL	36 X'CO'				
DCBRECLA	36 X'E0'				
DCBRECSB	36 X'08'				
DCBRECTO	36 X'20'				
DCBRECU	36 X'CO'				
DCBRECV	36 X'40'				
DCBREL	17 (11)				
DCBRELAD	0 (0)				
DCBRELB	16 (10)				
DCBRESCA	13 (D)				
DCBRESCN	12 (C)				
DCBSIOA	64 (40)				
DCBSRCHD	52 X'04'				
DCBSSAD	4 (4)				
DCBSSADA	5 (5)				
DCBSSID	0 (0)				
DCBSTACK	16 (10)				
DCBSTCK1	16 X'01'				
DCBSTCK2	16 X'02'				
DCBSTFLS	60 X'40'				
DCBSTQCK	60 X'80'				
DCBSVCXA	29 (1D)				
DCBSVCXL	28 (1C)				
DCBSVDEB	28 X'10'				
DCBSYNA	57 (39)				
DCBSYNAD	56 (38)				
DCBTIOT	40 (28)				
DCBTRBAL	18 (12)				
DCBTRTCH	16 (10)				
DCBUPDBT	28 X'30'				
DCBUPDCM	28 X'40'				
DCBUPDT	28 X'20'				
DCBUSASI	80 (50)				
DCBWCPL	65 (41)				
DCBWCPO	64 (40)				
DCBWRITE	48 (30)				
DCBWTOIA	1 (1)				
DCBWTOID	0 (0)				
DCBXENDA	68 (44)				
DCB1DVDS	28 X'80'				

END OF DCB - EXCP,SAM



## **Data Control Block -- ISAM**

This data control block (DCB) is used by the indexed sequential access method (ISAM) routines and holds data pertinent to the use of a data set that is maintained by the ISAM routines. The common interface and the foundation sections serve the same purpose in all DCBs although the formats may vary slightly for different access method routines.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			ACCESS METHOD COMMON INTERFACE
16	(10)	4 DCBREL	SAME AS DCBREL BELOW
16	(10)	1 DCBKEYLE	KEY LENGTH OF DATA SET
17	(11)	1 DCBDEVT	DEVICE TYPE
	.1..	1111 DCBDVTRM	TERMINAL. (DD CONTAINS TERM=TS)
17	(11)	3 DCBREL	NUMBER OF RELATIVE TRACKS OR BLOCKS IN THIS DATA SET (BDAM)
20	(14)	4 DCBBUFCB	ADDRESS OF BUFFER POOL CONTROL BLOCK
20	(14)	1 DCBBUFNO	NUMBER OF BUFFERS REQUIRED FOR THIS DATA SET. MAY RANGE FROM 0 TO 255. IF UNBLOCKED SPANNED RECORDS ARE USED, NUMBER OF SEGMENT WORK AREAS REQUIRED FOR THIS DATA SET.
21	(15)	3 DCBBUFCA	ADDRESS OF BUFFER POOL CONTROL BLOCK
24	(18)	2 DCBBUFL	LENGTH OF BUFFER. MAY RANGE FROM 0 TO 32,767.
26	(1A)	2 DCBDSORG	DATA SET ORGANIZATION BEING USED
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG
	1... ..	DCBDSGIS	IS - INDEXED SEQUENTIAL ORGANIZATION
	.1.. ..	DCBDSGPS	PS - PHYSICAL SEQUENTIAL ORGANIZATION
	..1. ....	DCBDSGDA	DA - DIRECT ORGANIZATION
	...1 ....	DCBDSGCX	CX - BTAM LINE GROUP
	.... 1...	DCBDSGCQ	RESERVED
	.... .1..	DCBDSGMQ	RESERVED
	.... ..1.	DCBDSGPO	PO - PARTITIONED ORGANIZATION
	.... ...1	DCBDSGU	U - UNMOVABLE, THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
	1... ..	DCBDSGGS	GS - GRAPHICS ORGANIZATION
	.1.. ..	DCBDSGTX	TX - TCAM LINE GROUP
	..1. ....	DCBDSGTQ	TQ - TCAM MESSAGE QUEUE
	.... 1...	DCBACBM	ACCESS METHOD CONTROL BLOCK
28	(1C)	4 DCBIOBAD	ADDRESS OF IOB WHEN CHAINED SCHEDULING IS USED OR FOR 1419/1275
28	(1C)	4 DCBODEB	ADDRESS OF OLD DEB
28	(1C)	1 DCBLNP	3525 PRINTER LINE POSITION COUNTER
28	(1C)	1 DCBQSLM	QSAM LOCATE MODE LOGICAL RECORD INTERFACE INDICATOR BYTE FOR UPDAT PROCESSING OF SPANNED RECORDS
	1... ..	DCB1DVDS	ONLY ONE DEVICE IS ALLOCATED TO THIS DATA SET
	.1.. ..	DCBUPDCM	UPDATE COMPLETE, FREE OLD DEB
	..11 ....	DCBUPDBT	UPDATE BITS
	..1. ....	DCBUPDT	UPDATE TO TAKE PLACE
	..11 ....	DCBNUPD	NO UPDATE TO TAKE PLACE
	...1 ....	DCBSVDEB	OLD DEB ADDRESS MUST BE SAVED
29	(1D)	3 DCBIOBAA	SAME AS DCBIOBAD ABOVE
29	(1D)	3 DCBODEBA	ADDRESS OF OLD DEB
28	(1C)	4 DCBSVCXL	SAME AS DCBSVCXA BELOW
28	(1C)	1	RESERVED
29	(1D)	3 DCBSVCXA	POINTER TO EXIT LIST OF JES C.I. INTERFACE CONTROL SVC

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
FOUNDATION EXTENSION			
32	(20)	4 DCBEODAD	SAME AS DCBEODA BELOW
32	(20)	1 DCBHIARC	HIERARCHY BITS
32	(20)	1 DCBBFTEK	BUFFERING TECHNIQUE BITS
32	(20)	1 DCBBFALN	BUFFER ALIGNMENT BITS
	1....	.... DCBH1	HIERARCHY 1 MAIN STORAGE - BIT 5 IS ZERO*
	.111	.... DCBBFT	BUFFERING TECHNIQUE
	.11.	.... DCBBFTA	QSAM LOCATE MODE PROCESSING OF SPANNED RECORDS - OPEN IS TO CONSTRUCT A RECORD AREA IF IT AUTOMATICALLY CONSTRUCTS BUFFERS
	..1.	.... DCBBFTR	FOR BSAM CREATE BDAM PROCESSING OF UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW. FOR BSAM INPUT PROCESSING OF UNBLOCKED SPANNED RECORDS WITH KEYS - RECORD OFFSET PROCESSING.
	.1..	.... DCBBFTS	SIMPLE BUFFERING - BIT 3 IS ZERO
	..1.	.... DCBBFTKR	UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW (BDAM)
	...1	.... DCBBFTE	EXCHANGE BUFFERING - BIT 1 IS ZERO
	....	1... DCBBFTKD	DYNAMIC BUFFERING (BTAM)
	....	.1.. DCBH0	HIERARCHY 0 MAIN STORAGE - BIT 0 IS ZERO*
	....	..xx DCBBFA	BUFFER ALIGNMENT
	....	..1. DCBBFAD	DOUBLEWORD BOUNDARY
	....	...1 DCBBFAF1	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
	....	..11 DCBBFAF2	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
33	(21)	3 DCBEODA	ADDRESS OF A USER-PROVIDED ROUTINE TO HANDLE END-OF-DATA CONDITIONS
36	(24)	4 DCBEXLST	ADDRESS OF USER-PROVIDED LIST OF EXITS
36	(24)	1 DCBRECFCM	RECORD FORMAT
	xxx.	.... DCBRECLA	RECORD LENGTH INDICATOR - ASCII
	..1.	.... DCBRECD	ASCII VARIABLE RECORD LENGTH
	11..	.... DCBRECL	RECORD LENGTH INDICATOR
	1...	.... DCBREF	FIXED RECORD LENGTH
	.1..	.... DCBREC	VARIABLE RECORD LENGTH
	11..	.... DCBRECU	UNDEFINED RECORD LENGTH
	..1.	.... DCBRECTO	TRACK OVERFLOW
	...1	.... DCBRECBR	BLOCKED RECORDS
	....	1... DCBRECSB	FOR FIXED LENGTH RECORD FORMAT - STANDARD BLOCKS. FOR VARIABLE LENGTH RECORD FORMAT - SPANNED RECORDS
	....	.11. DCBRECC	CONTROL CHARACTER INDICATOR
	....	.1.. DCBRECCA	ASA CONTROL CHARACTER
	....	..1. DCBRECCM	MACHINE CONTROL CHARACTER
	....	.... DCBRECC	NO CONTROL CHARACTER
	....	...1 DCBRECKL	KEY LENGTH (KEYLEN) WAS SPECIFIED IN DCB MACRO INSTRUCTION
37	(25)	3 DCBEXLSA	ADDRESS OF USER-PROVIDED LIST OF EXITS
FOUNDATION BEFORE OPEN			
40	(28)	8 DCBDDNAM	NAME ON THE DD STATEMENT WHICH DEFINES THE DATA SET ASSOCIATED WITH THIS DCB
48	(30)	1 DCBOFLGS	FLAGS USED BY OPEN ROUTINE
	1...	.... DCBOFLWR	IF ZERO, LAST I/O OPERATION WAS READ OR POINT. IF ONE, LAST I/O OPERATION WAS WRITE.
	1...	.... DCBOFIOD	DATA SET IS BEING OPENED FOR INPUT OR OUTPUT

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			( BDAM )
.1..	....	DCBOFLRB	LAST I/O OPERATION WAS IN READ BACKWARD MODE
..1.	....	DCBOFEOV	SET TO 1 BY EOVS WHEN IT CALLS CLOSE ROUTINE FOR CONCATENATION OF DATA SETS WITH UNLIKE ATTRIBUTES
...1	....	DCBOFOPN	AN OPEN HAS BEEN SUCCESSFULLY COMPLETED
....	1...	DCBOFPPC	SET TO 1 BY PROBLEM PROGRAM TO INDICATE CONCATENATION OF UNLIKE ATTRIBUTES
....	.1..	DCBOFTM	TAPE MARK HAS BEEN READ
....	..1.	DCBOFUFX	SET TO 0 BY AN I/O SUPPORT FUNCTION WHEN THAT FUNCTION TAKES A USER EXIT. SET TO ON RETURN FROM USER EXIT TO THE I/O SUPPORT FUNCTION WHICH TOOK THE EXIT.
....	...1	DCBOFIOF	SET TO 1 BY AN I/O SUPPORT FUNCTION IF DCB IS TO BE PROCESSED BY THAT FUNCTION
49	(31)	1 DCBIFLG	FLAGS USED BY IOS IN COMMUNICATING ERROR CONDITIONS AND IN DETERMINING CORRECTIVE PROCEDURES
		11..	.... DCBIBEC ERROR CORRECTION INDICATOR
		....	.... DCBIFNEP NOT IN ERROR PROCEDURE
		.1..	.... DCBEX ERROR CORRECTION OR IOS PAGE FIX IN PROCESS
		11..	.... DCBIFPEC PERMANENT ERROR CORRECTION
		..11	.... DCBIBPCT PRINTER CARRIAGE TAPE PUNCH INDICATOR
		..1.	.... DCBIFC9 CHANNEL 9 PRINTER CARRIAGE TAPE PUNCH SENSED
		...1	.... DCBIFC12 CHANNEL 12 PRINTER CARRIAGE TAPE PUNCH SENSED
		....	11.. DCBIBIOE IOS ERROR ROUTINE USE INDICATOR
		....	.... DCBIFER ALWAYS USE I/O SUPERVISOR ERROR ROUTINE
		....	.1.. DCBIFNE1 NEVER USE I/O SUPERVISOR ERROR ROUTINE
		....	.1.. DCBIFTIM TEST IOS MASK (IMSK) FOR ERROR PROCEDURE (BTAM)
		....	1... DCBIFNE2 NEVER USE I/O SUPERVISOR ERROR ROUTINE
		....	11.. DCBIFNE3 NEVER USE I/O SUPERVISOR ERROR ROUTINE
50	(32)	2 DCBMACR	MACRO INSTRUCTION REFERENCE
50	(32)	1 DCBMACR1	FIRST BYTE OF DCBMACR
		1...	.... DCBMRECP EXECUTE CHANNEL PROGRAM (EXCP) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, QISAM, BDAM) --- RESERVED (BTAM)
		.1..	.... DCBMRFE FOUNDATION EXTENSION IS PRESENT (EXCP)
		.1..	.... DCBMRGET GET (QSAM, QISAM, TCAM)
		.1..	.... DCBMRPTQ PUT FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (BTAM)
		..1.	.... DCBMRAPG APPENDAGES ARE REQUIRED (EXCP)
		..1.	.... DCBMRRD READ (BSAM, BPAM, BISAM, BDAM, BTAM)
		..1.	.... DCBMRWRQ WRITE FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM)
		...1	.... DCBMRCI COMMON INTERFACE (EXCP)
		...1	.... DCBMRMVG MOVE MODE OF GET (QSAM, QISAM)
		...1	.... DCBMRRDK KEY SEGMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BSAM, BPAM, BTAM)
		....	1... DCBMRLCG LOCATE MODE OF GET (QSAM, QISAM)
		....	1... DCBMRRDI ID ARGUMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
		....	.1.. DCBMRABC USER'S PROGRAM MAINTAINS ACCURATE BLOCK COUNT (EXCP)
		....	.1.. DCBMRPT1 POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
		....	.1.. DCBMRSBG SUBSTITUTE MODE OF GET (QSAM)
		....	.1.. DCBMRDBF DYNAMIC BUFFERING (BISAM, BDAM) --- ALWAYS ZERO (QISAM) --- RESERVED (BTAM)
		....	..1. DCBPGFXA PAGE FIX APPENDAGE IS SPECIFIED (EXCP)
		....	..1. DCBMRCL CNTRL (BSAM, QSAM)
		....	..1. DCBMRCHK CHECK (BISAM)

OFFSET	LENGTH	NAME	DESCRIPTION
....	..1.	DCBMRRDX	READ EXCLUSIVE (BDAM) --- RESERVED (BPAM, QISAM, BTAM)
....	...1	DCBMRDMG	DATA MODE OF GET (QISAM)
....	...1	DCBMRCK	CHECK (BDAM) --- RESERVED (EXCP, BSAM, BPAM, BISAM, QISAM, BTAM)
51	(33)	1 DCBMACR2	SECOND BYTE OF DCBMACR
1...	....	DCBMRSTL	SETL (QISAM) --- ALWAYS ZERO (BSAM, QISAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
.1..	....	DCBMRPUT	PUT (QISAM, TCAM) - PUT OR PUTX (QISAM)
.1..	....	DCBMRGTQ	GET FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
..1.	....	DCBMRWRT	WRITE (BSAM, BPAM, BISAM, BDAM, BTAM)
..1.	....	DCBMRRDQ	READ FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QISAM, QISAM) --- RESERVED (EXCP)
...1	....	DCBMRMVP	MOVE MODE OF PUT (QISAM, QISAM)
...1	....	DCBMRWRK	KEY SEGMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
....	1...	DCBMR5WD	FIVE-WORD DEVICE INTERFACE (EXCP)
....	1...	DCBMRLDM	LOAD MODE BSAM (CREATE BDAM DATA SET) (BSAM)
....	1...	DCBMRLCP	LOCATE MODE OF PUT (QISAM, QISAM)
....	1...	DCBMRIDW	ID ARGUMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
....	.1..	DCBMR4WD	FOUR-WORD DEVICE INTERFACE (EXCP)
....	.1..	DCBMRPT2	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
....	.1..	DCBMR TMD	SUBSTITUTE MODE (QISAM)
....	.1..	DCBMRUIP	UPDATE IN PLACE (PUTX) (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BDAM, BTAM)
....	..1.	DCBMR3WD	THREE-WORD DEVICE INTERFACE (EXCP)
....	..1.	DCBMRCTL	CNTRL (BSAM, QISAM)
....	..1.	DCBMRSTK	SETL BY KEY (QISAM)
....	..1.	DCBMRRAWR	ADD TYPE OF WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
....	...1	DCBMR1WD	ONE-WORD DEVICE INTERFACE (EXCP)
....	...1	DCBMRSWA	USER'S PROGRAM HAS PROVIDED A SEGMENT WORK AREA POOL (BSAM CREATE BDAM, BDAM)
....	...1	DCBMRDMD	DATA MODE (QISAM)
....	...1	DCBMRSTI	SETL BY ID (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)

FOUNDATION AFTER OPEN

40	(28)	2	DCBTIOT	OFFSET FROM TIOT ORIGIN TO TIOELNGH FIELD IN TIOT ENTRY FOR DD STATEMENT ASSOCIATED WITH THIS DCB
42	(2A)	2	DCBMACRF	SAME AS DCBMACR BEFORE OPEN
42	(2A)	1	DCBMACF1	FIRST BYTE OF DCBMACRF
43	(2B)	1	DCBMACF2	SECOND BYTE OF DCBMACRF
44	(2C)	4	DCBDEBAD	ADDRESS OF ASSOCIATED DEB
44	(2C)	1	DCBIFLGS	SAME AS DCBIFLG BEFORE OPEN
	11..	....	DCBIFEC	ERROR CORRECTION INDICATOR
	..11	....	DCBIFPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	....	11..	DCBIFIOE	IOS ERROR ROUTINE USE INDICATOR
45	(2D)	3	DCBDEBA	ADDRESS OF ASSOCIATED DEB
48	(30)	4	DCBGET	ADDRESS OF GET MODULE
48	(30)	4	DCBPUT	ADDRESS OF PUT MODULE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
BISAM-QISAM INTERFACE			
52	(34)	1 DCBOPTCD	OPTION CODES
	1...	.... DCBOPTW	WRITE VALIDITY CHECK (DASD) (BSAM, BPAM, QSAM, ISAM, BDAM)
	.1..	.... DCBOPTUF	FULL-TRACK INDEX WRITE
	..1.	.... DCBOPTM	MASTER INDEXES
	...1	.... DCBOPTI	INDEPENDENT OVERFLOW AREA
	....	1... DCBOPTY	CYLINDER OVERFLOW AREA
	....	..1. DCBOPTL	DELETE OPTION
	....	...1 DCBOPTR	REORGANIZATION CRITERIA
53	(35)	1 DCBMAC	EXTENSION OF DCBMACRF FIELD FOR ISAM
	....	1... DCBMACUR	UPDATE FOR READ
	....	.1.. DCBMACUW	UPDATE TYPE OF WRITE
	....	..1. DCBMACAW	ADD TYPE OF WRITE
	....	...1 DCBMACRE	READ EXCLUSIVE
54	(36)	1 DCBNMTM	NUMBER OF TRACKS THAT DETERMINE THE DEVELOPMENT OF A MASTER INDEX MAXIMUM PERMISSABLE VALUE - 99
55	(37)	1 DCBCYLOF	NUMBER OF TRACKS TO BE RESERVED ON EACH PRIME DATA CYLINDER FOR RECORDS THAT OVERFLOW FROM OTHER TRACKS ON THAT CYLINDER
56	(38)	4 DCBSYNAD	ADDRESS OF USER'S SYNAD ROUTINE
60	(3C)	2 DCBRKP	RELATIVE POSITION OF FIRST BYTE OF KEY WITHIN EACH LOGICAL RECORD
62	(3E)	2 DCBBLKSI	BLOCK SIZE
64	(40)	8 DCBLPDT	FOR RESUME LOAD, THE LAST PRIME DATA TRACK ON THE LAST PRIME DATA CYLINDER IN THE FORM MBBCCHHR.
64	(40)	4 DCBMSWA	ADDRESS OF WORK AREA FOR USE BY CONTROL PROGRAM WHEN NEW RECORDS ARE BEING ADDED TO AN EXISTING DATA SET
68	(44)	2 DCBSMSI	NUMBER OF BYTES IN AREA RESERVED TO HOLD HIGHEST LEVEL INDEX
70	(46)	2 DCBSMSW	NUMBER OF BYTES IN WORK AREA USED BY CONTROL PROGRAM WHEN NEW RECORDS ARE BEING ADDED TO DATA SET
72	(48)	4 DCBMSHI	ADDRESS OF STORAGE AREA TO HOLD HIGHEST LEVEL INDEX
72	(48)	1 DCBNCP	NUMBER OF COPIES OF READ-WRITE (TYPE K) CHANNEL PROGRAMS THAT ARE TO BE ESTABLISHED FOR THIS DCB. (99 MAXIMUM)
73	(49)	3 DCBMSHIA	SAME AS DCBMSHI ABOVE
76	(4C)	4 DCBSETL	ADDRESS OF SETL MODULE FOR QISAM. ADDRESS OF CHECK MODULE FOR BISAM
80	(50)	1 DCBEXCD1	FIRST BYTE IN WHICH EXCEPTIONAL CONDITIONS DETECTED IN PROCESSING DATA RECORDS ARE REPORTED TO THE USER
	1...	.... DCBEXNKY	LOWER KEY LIMIT NOT FOUND
	.1..	.... DCBEXIDA	INVALID DEVICE ADDRESS FOR LOWER LIMIT
	..1.	.... DCBEXNSP	SPACE NOT FOUND
	...1	.... DCBEXINV	INVALID REQUEST
	....	1... DCBEXIER	UNCORRECTABLE INPUT ERROR
	....	.1.. DCBEXOER	UNCORRECTABLE OUTPUT ERROR

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>	
	....	..1.	DCBEXBLI	BLOCK COULD NOT BE REACHED (INPUT)
	....	...1	DCBEXBLU	BLOCK COULD NOT BE REACHED (UPDATE)
81	(51)	1	DCBEXCD2	SECOND BYTE IN WHICH EXCEPTIONAL CONDITIONS DETECTED IN PROCESSING DATA RECORDS ARE REPORTED TO THE USER
	1...	....	DCBEXSEQ	SEQUENCE CHECK
	.1..	....	DCBEXDUP	DUPLICATE RECORD
	..1.	....	DCBEXCLD	DCB CLOSED WHEN ERROR WAS DETECTED
	...1	....	DCBEXOFL	OVERFLOW RECORD
	....	1...	DCBEXLTH	FOR PUT - LENGTH FIELD OF RECORD LARGER THAN LENGTH INDICATED IN DCBLRECL
	....	1...	DCBEXRDE	READ EXCLUSIVE
82	(52)	2	DCBLRECL	FOR FIXED-LENGTH RECORD FORMATS, LOGICAL RECORD LENGTH. FOR VARIABLE-LENGTH RECORD FORMATS, MAXIMUM LOGICAL RECORD LENGTH OR AN ACTUAL LOGICAL RECORD LENGTH CHANGED DYNAMICALLY BY USER WHEN CREATING THE DATA SET
84	(54)	4	DCBESETL	ADDRESS OF ESETL ROUTINE IN GET MODULE
88	(58)	4	DCBLRAN	ADDRESS OF READ-WRITE K MODULE OR EXCLUSIVE MODULE
92	(5C)	4	DCBLWKN	ADDRESS OF WRITE KN MODULE
96	(60)	4	DCBRELSA	WORK AREA FOR TEMPORARY STORAGE OF REGISTER CONTENTS
100	(64)	4	DCBPUTX	WORK AREA FOR TEMPORARY STORAGE OF REGISTER CONTENTS
104	(68)	4	DCBRELEX	ADDRESS OF READ EXCLUSIVE MODULE
108	(6C)	4	DCBFREED	ADDRESS OF DYNAMIC BUFFERING MODULE
112	(70)	1	DCBHIRTI	NUMBER OF INDEX ENTRIES THAT FIT ON A PRIME DATA TRACK
113	(71)	7	DCBFTMI2	DIRECT ACCESS DEVICE ADDRESS OF FIRST TRACK OF SECOND LEVEL MASTER INDEX (IN THE FORM MBBCCHH)
120	(78)	5	DCBLEMI2	DIRECT ACCESS DEVICE ADDRESS OF LAST ACTIVE ENTRY IN SECOND LEVEL MASTER INDEX (IN THE FORM CCHHR)
125	(7D)	7	DCBFTMI3	DIRECT ACCESS DEVICE ADDRESS OF FIRST TRACK OF THIRD LEVEL MASTER INDEX (IN THE FORM MBBCCHH)
132	(84)	5	DCBLEMI3	DIRECT ACCESS DEVICE ADDRESS OF LAST ACTIVE ENTRY IN THIRD LEVEL MASTER INDEX (IN THE FORM CCHHR)
137	(89)	1	DCBNLEV	NUMBER OF LEVELS OF INDEX
138	(8A)	3	DCBFIRSH	HHR OF FIRST DATA RECORD ON EACH CYLINDER. FOR VARIABLE LENGTH RECORD PROCESSING, R PORTION OF THIS FIELD IS ALWAYS X'01'
141	(8D)	1	DCBHMASK	BYTE INDICATING 2301 OR NOT - SET TO X'FF'
	....	.111	DCBHMDRM	DEVICE IS 2301 DRUM
	1111	1111	DCBHMNDM	DEVICE IS OTHER THAN 2301 DRUM
142	(8E)	2	DCBLDT	HH IS THE LAST PRIME DATA TRACK ON EACH CYLINDER
144	(90)	1	DCBHIRCM	HIGHEST POSSIBLE R FOR TRACKS OF THE CYLINDER AND MASTER INDICES

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
145	(91)	1 DCBHIRPD	HIGHEST R ON ANY PRIME TRACK IN DATA SET. FOR VARIABLE-LENGTH RECORDS, THIS REPRESENTS THE GREATEST NUMBER OF PHYSICAL RECORDS ON ANY PRIME TRACK IN THE DATA SET
146	(92)	1 DCBHIROV	FOR FIXED-LENGTH RECORD FORMAT, HIGHEST POSSIBLE R FOR OVERFLOW DATA TRACKS. FOR VARIABLE-LENGTH RECORD FORMAT, UNUSED.
147	(93)	1 DCBHIRSH	FOR FIXED-LENGTH RECORD FORMAT, R OF LAST DATA RECORD ON A SHARED TRACK, IF APPLICABLE. FOR VARIABLE-LENGTH RECORD FORMAT, UNUSED.
148	(94)	2 DCBTDC	USER-SUPPLIED NUMBER OF RECORDS TAGGED FOR DELETION.
150	(96)	2 DCBNCRHI	NUMBER OF STORAGE LOCATIONS NEEDED TO HOLD THE HIGHEST LEVEL INDEX
152	(98)	4 DCBRORG3	FOR EACH USE OF DATA SET, NUMBER OF READ OR WRITE ACCESSES TO AN OVERFLOW RECORD WHICH IS NOT FIRST IN A CHAIN OF SUCH RECORDS
156	(9C)	4 DCBNREC	NUMBER OF LOGICAL RECORDS IN PRIME DATA AREA
160	(A0)	1 DCBST	STATUS INDICATORS
	1... ..	DCBSTSSM	SINGLE SCHEDULE MODE
	.1.. ..	DCBSTKSQ	KEY SEQUENCE CHECKING IS TO BE PERFORMED
	..1. ....	DCBSTLOD	LOADING HAS COMPLETED. SET TO 1 BY CLOSE ROUTINE AND TO 0 BY FIRST EXECUTION OF PUT ROUTINE.
	...1 ....	DCBSTNCY	EXTENSION OF DATA SET WILL BEGIN ON NEW CYLINDER
	.... .1..	DCBSTNMC	FIRST MACRO INSTRUCTION NOT YET RECEIVED
	.... ..1.	DCBSTLBF	LAST BLOCK FULL
	.... ...1	DCBSTLTF	LAST TRACK FULL
161	(A1)	7 DCBFTCI	DIRECT ACCESS DEVICE ADDRESS OF FIRST TRACK OF CYLINDER INDEX (IN THE FORM MBBCCHH).
168	(A8)	1 DCBHIIOV	FOR FIXED LENGTH RECORD FORMAT, HIGHEST POSSIBLE R FOR INDEPENDENT OVERFLOW DATA TRACKS. FOR VARIABLE LENGTH RECORD FORMAT, UNUSED
169	(A9)	7 DCBFTMI1	DIRECT ACCESS DEVICE ADDRESS OF FIRST TRACK OF FIRST LEVEL MASTER INDEX (IN THE FORM MBBCCHH).
176	(B0)	1 DCBNTHI	NUMBER OF TRACKS OF HIGH-LEVEL INDEX
177	(B1)	7 DCBFTHI	DIRECT ACCESS DEVICE ADDRESS OF FIRST TRACK OF HIGHEST LEVEL INDEX (IN THE FORM MBBCCHH).
184	(B8)	8 DCBLPDA	DIRECT ACCESS DEVICE ADDRESS OF LAST PRIME DATA RECORD IN PRIME DATA AREA (IN THE FORM MBBCCHHR).
192	(C0)	5 DCBLETI	DIRECT ACCESS DEVICE ADDRESS OF LAST ACTIVE NORMAL ENTRY OF TRACK INDEX ON LAST ACTIVE CYLINDER (IN THE FORM CCHHR).
197	(C5)	1 DCBOVDEV	DEVICE TYPE FOR INDEPENDENT OVERFLOW
		THESE SAME MASKS APPLY TO DCBDEVT FOR ISAM DIRECT ACCESS	
	.... ...1	DCBDVI11	2311 DISK DRIVE*
	.... ..1.	DCBDVI01	2301 PARALLEL DRUM*
	.... ..11	DCBDVI03	2303 SERIAL DRUM*
	.... .1..	DCBDVI02	2302 DISK STORAGE*



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	.1.1 DCBDVI21	2321 DATA CELL DRIVE*
	....	1... DCBDVI14	2314 DISK STORAGE FACILITY
198	(C6)	2 DCBNBOV	FOR FIXED LENGTH RECORD FORMAT, RESERVED. FOR VARIABLE LENGTH RECORD FORMAT, IF THE INDEPENDENT OVERFLOW OPTION IS SELECTED, CONTAINS, IN BINARY, NUMBER OF BYTES LEFT ON CURRENT TRACK OF INDEPENDENT OVERFLOW AREA
200	(C8)	5 DCBLECI	DIRECT ACCESS DEVICE ADDRESS OF LAST ACTIVE ENTRY IN CYLINDER INDEX (IN THE FORM CCHHR).
205	(CD)	1	RESERVED
206	(CE)	2 DCBRORG2	NUMBER OF TRACKS (PARTIALLY OR WHOLLY) REMAINING IN INDEPENDENT OVERFLOW AREA
208	(D0)	5 DCBLEMI1	DIRECT ACCESS DEVICE ADDRESS OF LAST ACTIVE ENTRY IN FIRST LEVEL MASTER INDEX (IN THE FORM CCHHR).
213	(D5)	1	RESERVED
214	(D6)	2 DCBNOREC	NUMBER OF LOGICAL RECORDS IN AN OVERFLOW AREA
216	(D8)	8 DCBLIOV	DIRECT ACCESS DEVICE ADDRESS OF LAST AREA (IN THE FORM MBBCCHHR).
224	(E0)	2 DCBRORG1	NUMBER OF CYLINDER OVERFLOW AREAS THAT ARE FULL
226	(E2)	2	RESERVED
228	(E4)	4 DCBWKPT1	POINTER TO WORK AREA OR TO CONSTRUCTED CHANNEL PROGRAM FOR WHICH SPACE IS OBTAINED BY GETMAIN MACRO INSTRUCTIONS ISSUED BY OPEN EXECUTORS
232	(E8)	4 DCBWKPT2	ADDITIONAL POINTER AS IN DCBWKPT1
236	(EC)	4 DCBWKPT3	ADDITIONAL POINTER AS IN DCBWKPT1
240	(F0)	4 DCBWKPT4	ADDITIONAL POINTER AS IN DCBWKPT1
244	(F4)	4 DCBWKPT5	ADDITIONAL POINTER AS IN DCBWKPT1
248	(F8)	4 DCBWKPT6	ADDITIONAL POINTER AS IN DCBWKPT1

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	28 (1C)	DCBEXIER	80 X'08'	DCBLPDT	64 (40)
	205 (CD)	DCBEXINV	80 X'10'	DCBLRAN	88 (58)
	213 (D5)	DCBEXLSA	37 (25)	DCBLRECL	82 (52)
	226 (E2)	DCBEXLST	36 (24)	DCBLWKN	92 (5C)
DCBACBM	27 X'08'	DCBEXLTH	81 X'08'	DCBMAC	53 (35)
DCBBFA	32 X'03'	DCBEXNKY	80 X'80'	DCBMACAW	53 X'02'
DCBBFAD	32 X'02'	DCBEXNSP	80 X'20'	DCBMACF1	42 (2A)
DCBBFAF1	32 X'01'	DCBEXOER	80 X'04'	DCBMACF2	43 (2B)
DCBBFAF2	32 X'03'	DCBEXOFL	81 X'10'	DCBMACR	50 (32)
DCBBFALN	32 (20)	DCBEXRDE	81 X'08'	DCBMACRE	53 X'01'
DCBBFT	32 X'70'	DCBEXSEQ	81 X'80'	DCBMACRF	42 (2A)
DCBBFTA	32 X'60'	DCBFIRSH	138 (8A)	DCBMACR1	50 (32)
DCBBFTE	32 X'10'	DCBFREED	108 (6C)	DCBMACR2	51 (33)
DCBBFTEK	32 (20)	DCBFTCI	161 (A1)	DCBMACUR	53 X'08'
DCBBFTKD	32 X'08'	DCBFTHI	177 (B1)	DCBMACUW	53 X'04'
DCBBFTKR	32 X'20'	DCBFTMI1	169 (A9)	DCBMRABC	50 X'04'
DCBBFTR	32 X'20'	DCBFTMI2	113 (71)	DCBMRAPG	50 X'20'
DCBBFTR	32 X'20'	DCBFTMI3	125 (7D)	DCBMRRAW	51 X'02'
DCBBFTR	32 X'40'	DCBGET	48 (30)	DCBMRCHK	50 X'02'
DCBBLKSI	62 (3E)	DCBHIARC	32 (20)	DCBMRCI	50 X'10'
DCBBUFCA	21 (15)	DCBHIOV	168 (A8)	DCBMRCK	50 X'01'
DCBBUFCA	20 (14)	DCBHIRC	144 (90)	DCBMRCL	50 X'02'
DCBBUFL	24 (18)	DCBHIOV	146 (92)	DCBMRCTL	51 X'02'
DCBBUFNO	20 (14)	DCBHIRPD	145 (91)	DCBMRDBF	50 X'04'
DCBCYLOF	55 (37)	DCBHIRSH	147 (93)	DCBMRDMD	51 X'01'
DCBDDNAM	40 (28)	DCBHIRT	112 (70)	DCBMRDMG	50 X'01'
DCBDEBA	45 (2D)	DCBHMASK	141 (8D)	DCBMRDMP	50 X'80'
DCBDEBAD	44 (2C)	DCBHMDRM	141 X'07'	DCBMRFE	50 X'40'
DCBDEVT	17 (11)	DCBHMNDM	141 X'FF'	DCBMRGET	50 X'40'
DCBDSGCQ	26 X'08'	DCBHO	32 X'04'	DCBMRGTQ	51 X'40'
DCBDSGCX	26 X'10'	DCBH1	32 X'80'	DCBMRIDW	51 X'08'
DCBDSGDA	26 X'20'	DCBIBEC	49 X'C0'	DCBMRICG	50 X'08'
DCBDSGGS	27 X'80'	DCBIBIOE	49 X'0C'	DCBMRICP	51 X'08'
DCBDSGIS	26 X'80'	DCBIBPCT	49 X'30'	DCBMRIDM	51 X'08'
DCBDSGMQ	26 X'04'	DCBIFC12	49 X'10'	DCBMRMVG	50 X'10'
DCBDSGPO	26 X'02'	DCBIFC9	49 X'20'	DCBMRMVP	51 X'10'
DCBDSGPS	26 X'40'	DCBIFEC	44 X'C0'	DCBMRPTQ	50 X'40'
DCBDSGTQ	27 X'20'	DCBIFER	49 X'00'	DCBMRPT1	50 X'04'
DCBDSGTX	27 X'40'	DCBIFIOE	44 X'0C'	DCBMRPT2	51 X'04'
DCBDSGU	26 X'01'	DCBIFLG	49 (31)	DCBMRPUT	51 X'40'
DCBDSORG	26 (1A)	DCBIFLGS	44 (2C)	DCBMRRD	50 X'20'
DCBDSRG1	26 (1A)	DCBIFNEP	49 X'00'	DCBMRRI	50 X'08'
DCBDSRG2	27 (1B)	DCBIFNE1	49 X'04'	DCBMRRDK	50 X'10'
DCBDVI01	197 X'02'	DCBIFNE2	49 X'08'	DCBMRRDQ	51 X'20'
DCBDVI02	197 X'04'	DCBIFNE3	49 X'0C'	DCBMRRDY	50 X'02'
DCBDVI03	197 X'03'	DCBIFPCT	44 X'30'	DCBMRSEB	50 X'04'
DCBDVI11	197 X'01'	DCBIFPEC	49 X'C0'	DCBMRSTI	51 X'01'
DCBDVI14	197 X'08'	DCBIFTIM	49 X'04'	DCBMRSTK	51 X'02'
DCBDVI21	197 X'05'	DCBIOBAA	29 (1D)	DCBMRSTL	51 X'80'
DCBDVTRM	17 X'4F'	DCBIOBAD	28 (1C)	DCBMRSWA	51 X'01'
DCBEODA	33 (21)	DCBKEYLE	16 (10)	DCBMRSTMD	51 X'04'
DCBEODAD	32 (20)	DCBLDT	142 (8E)	DCBMRUIP	51 X'04'
DCBESETL	84 (54)	DCBLECI	200 (C8)	DCBMRWRK	51 X'10'
DCBEX	49 X'40'	DCBLEMI1	208 (D0)	DCBMRWRQ	50 X'20'
DCBEXBLI	80 X'02'	DCBLEMI2	120 (78)	DCBMRWRT	51 X'20'
DCBEXBLU	80 X'01'	DCBLEMI3	132 (84)	DCBMR1WD	51 X'01'
DCBEXCD1	80 (50)	DCBLETI	192 (C0)	DCBMR3WD	51 X'02'
DCBEXCD2	81 (51)	DCBLIOV	216 (D8)	DCBMR4WD	51 X'04'
DCBEXCLD	81 X'20'	DCBLNP	28 (1C)	DCBMR5WD	51 X'08'
DCBEXDUP	81 X'40'	DCBLPDA	184 (B8)	DCBMSHI	72 (48)
DCBEXIDA	80 X'40'				

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DCBMSHIA	73 (49)	DCBSMSI	68 (44)		
DCBMSWA	64 (40)	DCBSMSW	70 (46)		
DCBNBOV	198 (C6)	DCBST	160 (A0)		
DCBNCP	72 (48)	DCBSTKSQ	160 X'40'		
DCBNCRHI	150 (96)	DCBSTLBF	160 X'02'		
DCBNLEV	137 (89)	DCBSTLOD	160 X'20'		
DCBNOREC	214 (D6)	DCBSTLTF	160 X'01'		
DCBNREC	156 (9C)	DCBSTNCY	160 X'10'		
DCBNTHI	176 (B0)	DCBSTNMC	160 X'04'		
DCBNTM	54 (36)	DCBSTSSM	160 X'80'		
DCBNUPD	28 X'30'	DCBSVCXA	29 (1D)		
DCBODEB	28 (1C)	DCBSVCXL	28 (1C)		
DCBODEBA	29 (1D)	DCBSVDEB	28 X'10'		
DCBOFEOV	48 X'20'	DCBSYNAD	56 (38)		
DCBOFIOD	48 X'80'	DCBTDC	148 (94)		
DCBOFIOF	48 X'01'	DCBTIOT	40 (28)		
DCBOFLGS	48 (30)	DCBUPDBT	28 X'30'		
DCBOFLRB	48 X'40'	DCBUPDCM	28 X'40'		
DCBOFLWR	48 X'80'	DCBUPDT	28 X'20'		
DCBOFOPN	48 X'10'	DCBWKPT1	228 (E4)		
DCBOFPPC	48 X'08'	DCBWKPT2	232 (E8)		
DCBOFTM	48 X'04'	DCBWKPT3	236 (EC)		
DCBOFUEX	48 X'02'	DCBWKPT4	240 (F0)		
DCBOPTCD	52 (34)	DCBWKPT5	244 (F4)		
DCBOPTI	52 X'10'	DCBWKPT6	248 (F8)		
DCBOPTL	52 X'02'	DCB1DVDS	28 X'80'		
DCBOPTM	52 X'20'				
DCBOPTR	52 X'01'				
DCBOPTUF	52 X'40'				
DCBOPTW	52 X'80'				
DCBOPTY	52 X'08'				
DCBOVDEV	197 (C5)				
DCBPGFXA	50 X'02'				
DCBPUT	48 (30)				
DCBPUTX	100 (64)				
DCBQSLM	28 (1C)				
DCBRECBR	36 X'10'				
DCBRECC	36 X'00'				
DCBRECCA	36 X'04'				
DCBRECCC	36 X'06'				
DCBRECCM	36 X'02'				
DCBRECD	36 X'20'				
DCBRECF	36 X'80'				
DCBRECFM	36 (24)				
DCBRECKL	36 X'01'				
DCBRECL	36 X'C0'				
DCBRECLA	36 X'E0'				
DCBRECSB	36 X'08'				
DCBRECTO	36 X'20'				
DCBRECU	36 X'C0'				
DCBRECVC	36 X'40'				
DCBREL	17 (11)				
DCBRELB	16 (10)				
DCBRELEX	104 (68)				
DCBRELSE	96 (60)				
DCBRKP	60 (3C)				
DCBRORG1	224 (E0)				
DCBRORG2	206 (CE)				
DCBRORG3	152 (98)				
DCBSETL	76 (4C)				

END OF DCB - ISAM



## **Data Control Block -- BDAM**

This data control block (DCB) contains information pertaining to data sets being processed by basic direct access method (BDAM) routines. The common interface and foundation sections are the same for all DCB formats. The direct access storage device section and the BDAM interface section complete the description of this block.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			ACCESS METHOD COMMON INTERFACE
16	(10)	4 DCBREL	SAME AS DCBREL BELOW
16	(10)	1 DCBKEYLE	KEY LENGTH OF DATA SET
17	(11)	1 DCBDEVT	DEVICE TYPE
	.1..	1111 DCBDVTRM	TERMINAL. (DD CONTAINS TERM=TS)
17	(11)	3 DCBREL	NUMBER OF RELATIVE TRACKS OR BLOCKS IN THIS DATA SET (BDAM)
20	(14)	4 DCBBUFCB	ADDRESS OF BUFFER POOL CONTROL BLOCK
20	(14)	1 DCBBUFNO	NUMBER OF BUFFERS REQUIRED FOR THIS DATA SET. MAY RANGE FROM 0 TO 255. IF UNBLOCKED SPANNED RECORDS ARE USED, NUMBER OF SEGMENT WORK AREAS REQUIRED FOR THIS DATA SET.
21	(15)	3 DCBBUFCA	ADDRESS OF BUFFER POOL CONTROL BLOCK
24	(18)	2 DCBBUFL	LENGTH OF BUFFER. MAY RANGE FROM 0 TO 32,767.
26	(1A)	2 DCBDSORG	DATA SET ORGANIZATION BEING USED
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG
	1...	.... DCBDSGIS	IS - INDEXED SEQUENTIAL ORGANIZATION
	.1..	.... DCBDSGPS	PS - PHYSICAL SEQUENTIAL ORGANIZATION
	..1.	.... DCBDSGDA	DA - DIRECT ORGANIZATION
	...1	.... DCBDSGCX	CX - BTAM LINE GROUP
	....	1... DCBDSGCQ	RESERVED
	....	.1.. DCBDSGMQ	RESERVED
	....	..1. DCBDSGPO	PO - PARTITIONED ORGANIZATION
	....	...1 DCBDSGU	U - UNMOVABLE, THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
	1...	.... DCBDSGGS	GS - GRAPHICS ORGANIZATION
	.1..	.... DCBDSGTX	TX - TCAM LINE GROUP
	..1.	.... DCBDSGTQ	TQ - TCAM MESSAGE QUEUE
	....	1... DCBACBM	ACCESS METHOD CONTROL BLOCK
28	(1C)	4 DCBIOBAD	ADDRESS OF IOB WHEN CHAINED SCHEDULING IS USED OR FOR 1419/1275
28	(1C)	4 DCBODEB	ADDRESS OF OLD DEB
28	(1C)	1 DCBLNP	3525 PRINTER LINE POSITION COUNTER
28	(1C)	1 DCBQSLM	QSAM LOCATE MODE LOGICAL RECORD INTERFACE INDICATOR BYTE FOR UPDAT PROCESSING OF SPANNED RECORDS
	1...	.... DCB1DVDS	ONLY ONE DEVICE IS ALLOCATED TO THIS DATA SET
	.1..	.... DCBUPDCM	UPDATE COMPLETE, FREE OLD DEB
	..11	.... DCBUPDBT	UPDATE BITS
	..1.	.... DCBUPDT	UPDATE TO TAKE PLACE
	..11	.... DCBNUPD	NO UPDATE TO TAKE PLACE
	...1	.... DCBSVDEB	OLD DEB ADDRESS MUST BE SAVED
29	(1D)	3 DCBIOBAA	SAME AS DCBIOBAD ABOVE
29	(1D)	3 DCBODEBA	ADDRESS OF OLD DEB
28	(1C)	4 DCBSVCXL	SAME AS DCBSVCXA BELOW
28	(1C)	1	RESERVED
29	(1D)	3 DCBSVCXA	POINTER TO EXIT LIST OF JES C.I. INTERFACE CONTROL SVC

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
FOUNDATION EXTENSION			
32	(20)	4 DCBEODAD	SAME AS DCBEODA BELOW
32	(20)	1 DCBHIARC	HIERARCHY BITS
32	(20)	1 DCBBFTEK	BUFFERING TECHNIQUE BITS
32	(20)	1 DCBBFALN	BUFFER ALIGNMENT BITS
	1....	.... DCBH1	HIERARCHY 1 MAIN STORAGE - BIT 5 IS ZERO*
	.111	.... DCBBFT	BUFFERING TECHNIQUE
	.11.	.... DCBBFTA	QSAM LOCATE MODE PROCESSING OF SPANNED RECORDS - OPEN IS TO CONSTRUCT A RECORD AREA IF IT AUTOMATICALLY CONSTRUCTS BUFFERS
	..1.	.... DCBBFTR	FOR BSAM CREATE BDAM PROCESSING OF UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW. FOR BSAM INPUT PROCESSING OF UNBLOCKED SPANNED RECORDS WITH KEYS - RECORD OFFSET PROCESSING.
	.1..	.... DCBBFTS	SIMPLE BUFFERING - BIT 3 IS ZERO
	..1.	.... DCBBFTKR	UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW (BDAM)
	...1	.... DCBBFTE	EXCHANGE BUFFERING - BIT 1 IS ZERO
	....	1... DCBBFTKD	DYNAMIC BUFFERING (BTAM)
	....	.1.. DCBH0	HIERARCHY 0 MAIN STORAGE - BIT 0 IS ZERO*
	....	..11 DCBBFA	BUFFER ALIGNMENT
	....	..1. DCBBFAD	DOUBLEWORD BOUNDARY
	....	...1 DCBBFAF1	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
	....	..11 DCBBFAF2	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
33	(21)	3 DCBEODA	ADDRESS OF A USER-PROVIDED ROUTINE TO HANDLE END-OF-DATA CONDITIONS
36	(24)	4 DCBEXLST	ADDRESS OF USER-PROVIDED LIST OF EXITS
36	(24)	1 DCBREFCM	RECORD FORMAT
	111.	.... DCBRECLA	RECORD LENGTH INDICATOR - ASCII
	..1.	.... DCBRECD	ASCII VARIABLE RECORD LENGTH
	11..	.... DCBRECL	RECORD LENGTH INDICATOR
	1... ..	.... DCBRECF	FIXED RECORD LENGTH
	.1.. ..	.... DCBREC	VARIABLE RECORD LENGTH
	11.. ..	.... DCBRECU	UNDEFINED RECORD LENGTH
	..1. ..	.... DCBRECTO	TRACK OVERFLOW
	...1 ..	.... DCBRECBR	BLOCKED RECORDS
	....	1... DCBRECSB	FOR FIXED LENGTH RECORD FORMAT - STANDARD BLOCKS. FOR VARIABLE LENGTH RECORD FORMAT - SPANNED RECORDS
	....	..11. DCBRECCC	CONTROL CHARACTER INDICATOR
	....	..1.. DCBRECCA	ASA CONTROL CHARACTER
	....	..1. DCBRECCM	MACHINE CONTROL CHARACTER
	....	.... DCBRECC	NO CONTROL CHARACTER
	....	...1 DCBRECKL	KEY LENGTH (KEYLEN) WAS SPECIFIED IN DCB MACRO INSTRUCTION
37	(25)	3 DCBEXLSA	ADDRESS OF USER-PROVIDED LIST OF EXITS
FOUNDATION BEFORE OPEN			
40	(28)	8 DCBDDNAM	NAME ON THE DD STATEMENT WHICH DEFINES THE DATA SET ASSOCIATED WITH THIS DCB
48	(30)	1 DCBOFLGS	FLAGS USED BY OPEN ROUTINE
	1....	.... DCBOFLWR	IF ZERO, LAST I/O OPERATION WAS READ OR POINT. IF ONE, LAST I/O OPERATION WAS WRITE.
	1....	.... DCBOFIOD	DATA SET IS BEING OPENED FOR INPUT OR OUTPUT (BDAM)

OFFSET	LENGTH	NAME	DESCRIPTION
.1..	....	DCBOFLRB	LAST I/O OPERATION WAS IN READ BACKWARD MODE
..1.	....	DCBOFEOV	SET TO 1 BY EOVS WHEN IT CALLS CLOSE ROUTINE FOR CONCATENATION OF DATA SETS WITH UNLIKE ATTRIBUTES
...1	....	DCBOFOPN	AN OPEN HAS BEEN SUCCESSFULLY COMPLETED
....	1...	DCBOFPPC	SET TO 1 BY PROBLEM PROGRAM TO INDICATE CONCATENATION OF UNLIKE ATTRIBUTES
....	.1..	DCBOFTM	TAPE MARK HAS BEEN READ
....	..1.	DCBOFUFX	SET TO 0 BY AN I/O SUPPORT FUNCTION WHEN THAT FUNCTION TAKES A USER EXIT. SET TO ON RETURN FROM USER EXIT TO THE I/O SUPPORT FUNCTION WHICH TOOK THE EXIT.
....	...1	DCBOFIOF	SET TO 1 BY AN I/O SUPPORT FUNCTION IF DCB IS TO BE PROCESSED BY THAT FUNCTION
49	(31)	1 DCBIFLG	FLAGS USED BY IOS IN COMMUNICATING ERROR CONDITIONS AND IN DETERMINING CORRECTIVE PROCEDURES
11..	....	DCBIBEC	ERROR CORRECTION INDICATOR
...1	....	DCBIFNEP	NOT IN ERROR PROCEDURE
.1..	....	DCBEX	ERROR CORRECTION OR IOS PAGE FIX IN PROCESS
11..	....	DCBIFPEC	PERMANENT ERROR CORRECTION
..11	....	DCBIBPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
..1.	....	DCBIFC9	CHANNEL 9 PRINTER CARRIAGE TAPE PUNCH SENSED
...1	....	DCBIFC12	CHANNEL 12 PRINTER CARRIAGE TAPE PUNCH SENSED
....	11..	DCBIBIOE	IOS ERROR ROUTINE USE INDICATOR
....	....	DCBIFER	ALWAYS USE I/O SUPERVISOR ERROR ROUTINE
....	.1..	DCBIFNE1	NEVER USE I/O SUPERVISOR ERROR ROUTINE
....	.1..	DCBIFTIM	TEST IOS MASK (IMSK) FOR ERROR PROCEDURE (BTAM)
....	1...	DCBIFNE2	NEVER USE I/O SUPERVISOR ERROR ROUTINE
....	11..	DCBIFNE3	NEVER USE I/O SUPERVISOR ERROR ROUTINE
50	(32)	2 DCBMACR	MACRO INSTRUCTION REFERENCE
50	(32)	1 DCBMACR1	FIRST BYTE OF DCBMACR
1...	....	DCBMRECP	EXECUTE CHANNEL PROGRAM (EXCP) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, QISAM, BDAM) --- RESERVED (BTAM)
.1..	....	DCBMRFE	FOUNDATION EXTENSION IS PRESENT (EXCP)
.1..	....	DCBMRGET	GET (QSAM, QISAM, TCAM)
.1..	....	DCBMRPTQ	PUT FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (BTAM)
..1.	....	DCBMRAPG	APPENDAGES ARE REQUIRED (EXCP)
..1.	....	DCBMRRD	READ (BSAM, BPAM, BISAM, BDAM, BTAM)
..1.	....	DCBMRWRQ	WRITE FOR LINE GROUP (QTAM) --- ALWAYS ZERO (QSAM, QISAM)
...1	....	DCBMRCI	COMMON INTERFACE (EXCP)
...1	....	DCBMRMVG	MOVE MODE OF GET (QSAM, QISAM)
...1	....	DCBMRRDK	KEY SEGMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BSAM, BPAM, BTAM)
....	1...	DCBMLRCG	LOCATE MODE OF GET (QSAM, QISAM)
....	1...	DCBMRRDI	ID ARGUMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
....	.1..	DCBMRABC	USER'S PROGRAM MAINTAINS ACCURATE BLOCK COUNT (EXCP)
....	.1..	DCBMRPT1	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
....	.1..	DCBMRSBG	SUBSTITUTE MODE OF GET (QSAM)
....	.1..	DCBMRDBF	DYNAMIC BUFFERING (BISAM, BDAM) --- ALWAYS ZERO (QISAM) --- RESERVED (BTAM)
....	..1.	DCBPGFXA	PAGE FIX APPENDAGE IS SPECIFIED (EXCP)
....	..1.	DCBMRCL	CNTRL (BSAM, QSAM)
....	..1.	DCBMRCHK	CHECK (BISAM)
....	..1.	DCBMRRDX	READ EXCLUSIVE (BDAM) --- RESERVED (BPAM,



OFFSET	LENGTH	NAME	DESCRIPTION	
			QISAM, BTAM)	
	....	...1	DCBMRDMG	DATA MODE OF GET (QSAM)
	....	...1	DCBMRCK	CHECK (BDAM) --- RESERVED (EXCP, BSAM, BPAM, BISAM, QISAM, BTAM)
51	(33)	1	DCBMACR2	SECOND BYTE OF DCBMACR
	1...	....	DCBMRSTL	SETL (QISAM) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
	.1..	....	DCBMRPUT	PUT (QSAM, TCAM) - PUT OR PUTX (QISAM)
	.1..	....	DCBMRGTQ	GET FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
	..1.	....	DCBMRWRT	WRITE (BSAM, BPAM, BISAM, BDAM, BTAM)
	..1.	....	DCBMRRDQ	READ FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM) --- RESERVED (EXCP)
	...1	....	DCBMRMVP	MOVE MODE OF PUT (QSAM, QISAM)
	...1	....	DCBMRWRK	KEY SEGMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
	....	1...	DCBMR5WD	FIVE-WORD DEVICE INTERFACE (EXCP)
	....	1...	DCBMRLDM	LOAD MODE BSAM (CREATE BDAM DATA SET) (BSAM)
	....	1...	DCBMR LCP	LOCATE MODE OF PUT (QSAM, QISAM)
	....	1...	DCBMRIDW	ID ARGUMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
	....	.1..	DCBMR4WD	FOUR-WORD DEVICE INTERFACE (EXCP)
	....	.1..	DCBMRPT2	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
	....	.1..	DCBMR TMD	SUBSTITUTE MODE (QSAM)
	....	.1..	DCBMRUIP	UPDATE IN PLACE (PUTX) (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BDAM, QTAM, BTAM)
	....	..1.	DCBMR3WD	THREE-WORD DEVICE INTERFACE (EXCP)
	....	..1.	DCBMRCTL	CNTRL (BSAM, QSAM)
	....	..1.	DCBMRSTK	SETL BY KEY (QISAM)
	....	..1.	DCBMRRAWR	ADD TYPE OF WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
	....	...1	DCBMR1WD	ONE-WORD DEVICE INTERFACE (EXCP)
	....	...1	DCBMRSWA	USER'S PROGRAM HAS PROVIDED A SEGMENT WORK AREA POOL (BSAM CREATE BDAM, BDAM)
	....	...1	DCBMRDMD	DATA MODE (QSAM)
	....	...1	DCBMRSTI	SETL BY ID (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)

FOUNDATION AFTER OPEN

40	(28)	2	DCBTIOT	OFFSET FROM TIOT ORIGIN TO TIOELNGH FIELD IN TIOT ENTRY FOR DD STATEMENT ASSOCIATED WITH THIS DCB
42	(2A)	2	DCBMACRF	SAME AS DCBMACR BEFORE OPEN
42	(2A)	1	DCBMACF1	FIRST BYTE OF DCBMACRF
43	(2B)	1	DCBMACF2	SECOND BYTE OF DCBMACRF
44	(2C)	4	DCBDEBAD	ADDRESS OF ASSOCIATED DEB
44	(2C)	1	DCBIFLGS	SAME AS DCBIFLG BEFORE OPEN
	11..	....	DCBIFEC	ERROR CORRECTION INDICATOR
	..11	....	DCBIFPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	....	11..	DCBIFIOE	IOS ERROR ROUTINE USE INDICATOR
45	(2D)	3	DCBDEBA	ADDRESS OF ASSOCIATED DEB
48	(30)	4	DCBREAD	ADDRESS OF READ MODULE
48	(30)	4	DCBWRITE	ADDRESS OF WRITE MODULE BDAM INTERFACE
52	(34)	4	DCBCHECK	ADDRESS OF CHECK MODULE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
52	(34)	1 DCBOPTCD	OPTION CODES
	1...	.... DCBOPTW	WRITE VALIDITY CHECK (DASD) (BSAM, BPAM, QSAM, ISAM, BDAM)
	.1..	.... DCBOPTTO	TRACK OVERFLOW
	..1.	.... DCBOPTTE	EXTENDED SEARCH
	...1	.... DCBOPTF	FEEDBACK
	....	1... DCBOPTA	ACTUAL ADDRESSING
	....	.1.. DCBOPTDB	DYNAMIC BUFFERING
	....	..1. DCBOPTRE	READ EXCLUSIVE
	....	...1 DCBOPTRB	RELATIVE BLOCK ADDRESSING
53	(35)	3 DCBCHCKA	ADDRESS OF CHECK MODULE
56	(38)	4 DCBSYNAD	ADDRESS OF SYNAD ROUTINE
60	(3C)	2	RESERVED
62	(3E)	2 DCBBLKSI	MAXIMUM BLOCK SIZE
64	(40)	4 DCBIOBSQ	ADDRESS OF FIRST IOB ON UNSCHEDULED QUEUE FOR EITHER A WRITE-ADD REQUEST WHEN ANOTHER WRITE-ADD IS IN PROGRESS OR A READ-EXCLUSIVE REQUEST WHEN THE READ-EXCLUSIVE LIST IS FULL
68	(44)	4 DCBSQND	ADDRESS OF LAST IOB ON UNSCHEDULED QUEUE
72	(48)	4 DCBIOBUQ	ADDRESS OF FIRST IOB ON UNPOSTED QUEUE
76	(4C)	4 DCBUQND	ADDRESS OF LAST JOB ON UNPOSTED QUEUE THAT IS MAINTAINED BY THE READ EXCLUSIVE MODULE
80	(50)	1	RESERVED
81	(51)	3 DCBLIMCT	NUMBER OF TRACKS OR NUMBER OF RELATIVE BLOCKS TO BE SEARCHED (EXTENDED SEARCH OPTION)
84	(54)	4 DCBXARG	ADDRESS OF READ EXCLUSIVE LIST
84	(54)	1 DCBXCNT	NUMBER OF ENTRIES IN READ EXCLUSIVE LIST
85	(55)	3 DCBXARGA	ADDRESS OF READ EXCLUSIVE LIST
88	(58)	4 DCBDRDX	ADDRESS OF READ EXCLUSIVE MODULE
88	(58)	1 DCBMVXNO	TOTAL NUMBER OF EXTENTS IN MULTIVOLUME DATA SET
89	(59)	3 DCBDRDXA	ADDRESS OF READ EXCLUSIVE MODULE
92	(5C)	4 DCBDFOR	ADDRESS OF A FORMAT MODULE
96	(60)	4 DCBDFBK	ADDRESS OF A FEEDBACK MODULE
100	(64)	4 DCBDYNB	FOR DYNAMIC BUFFERING, ADDRESS OF DYNAMIC BUFFER MODULE. FOR UNBLOCKED SPANNED RECORDS WITH BFTEK=R SPECIFIED AND NO DYNAMIC BUFFERING, ADDRESS OF SEGMENT WORK AREA CONTROL BLOCK

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	28 (1C)	DCBIFC9	49 X'20'	DCBMRSWA	51 X'01'
	60 (3C)	DCBIFEC	44 X'CO'	DCBMRTMD	51 X'04'
	80 (50)	DCBIFER	49 X'00'	DCBMRUIP	51 X'04'
DCBACBM	27 X'08'	DCBIFIOE	44 X'0C'	DCBMRWRK	51 X'10'
DCBBFA	32 X'03'	DCBIFLG	49 (31)	DCBMRWRQ	50 X'20'
DCBBFAD	32 X'02'	DCBIFLGS	44 (2C)	DCBMRWRT	51 X'20'
DCBBFAF1	32 X'01'	DCBIFNEP	49 X'00'	DCBMR1WD	51 X'01'
DCBBFAF2	32 X'03'	DCBIFNE1	49 X'04'	DCBMR3WD	51 X'02'
DCBBFALN	32 (20)	DCBIFNE2	49 X'08'	DCBMR4WD	51 X'04'
DCBBFT	32 X'70'	DCBIFNE3	49 X'0C'	DCBMR5WD	51 X'08'
DCBBFTA	32 X'60'	DCBIFPCT	44 X'30'	DCBMVXNO	88 (58)
DCBBFTE	32 X'10'	DCBIFPEC	49 X'CO'	DCBNUPD	28 X'30'
DCBBFTEK	32 (20)	DCBIFTIM	49 X'04'	DCBODEB	28 (1C)
DCBBFTKD	32 X'08'	DCBIOBAA	29 (1D)	DCBODEBA	29 (1D)
DCBBFTKR	32 X'20'	DCBIOBAD	28 (1C)	DCBOFEOV	48 X'20'
DCBBFTR	32 X'20'	DCBIOBSQ	64 (40)	DCBOFIOD	48 X'80'
DCBBFTS	32 X'40'	DCBIOBUQ	72 (48)	DCBOFIOF	48 X'01'
DCBBLKSI	62 (3E)	DCBKEYLE	16 (10)	DCBOFLGS	48 (30)
DCBBUFCA	21 (15)	DCBLIMCT	81 (51)	DCBOFLRB	48 X'40'
DCBBUFCB	20 (14)	DCBLNP	28 (1C)	DCBOFLWR	48 X'80'
DCBBUFL	24 (18)	DCBMACF1	42 (2A)	DCBOFOPN	48 X'10'
DCBBUFNO	20 (14)	DCBMACF2	43 (2B)	DCBOFPPC	48 X'08'
DCBCHCKA	53 (35)	DCBMACR	50 (32)	DCBOFTM	48 X'04'
DCBCHECK	52 (34)	DCBMACRF	42 (2A)	DCBOFUEX	48 X'02'
DCBDDNAM	40 (28)	DCBMACR1	50 (32)	DCBOPTA	52 X'08'
DCBDEBA	45 (2D)	DCBMACR2	51 (33)	DCBOPTCD	52 (34)
DCBDEBAD	44 (2C)	DCBMRABC	50 X'04'	DCBOPTDB	52 X'04'
DCBDEVT	17 (11)	DCBMRAPG	50 X'20'	DCBOPTE	52 X'20'
DCBDFBK	96 (60)	DCBMRARW	51 X'02'	DCBOPTF	52 X'10'
DCBDFOR	92 (5C)	DCBMRCHK	50 X'02'	DCBOPTRB	52 X'01'
DCBDRDX	88 (58)	DCBMRCI	50 X'10'	DCBOPTRE	52 X'02'
DCBDRDXA	89 (59)	DCBMRCCK	50 X'01'	DCBOPTTO	52 X'40'
DCBDSGCQ	26 X'08'	DCBMRCRL	50 X'02'	DCBOPTW	52 X'80'
DCBDSGCX	26 X'10'	DCBMRCTL	51 X'02'	DCBPGFXA	50 X'02'
DCBDSGDA	26 X'20'	DCBMRDBF	50 X'04'	DCBQSLM	28 (1C)
DCBDSGGS	27 X'80'	DCBMRDMD	51 X'01'	DCBREAD	48 (30)
DCBDSGIS	26 X'80'	DCBMRDMG	50 X'01'	DCBRECBR	36 X'10'
DCBDSGMQ	26 X'04'	DCBMRECP	50 X'80'	DCBRECC	36 X'00'
DCBDSGPO	26 X'02'	DCBMRFE	50 X'40'	DCBRECCA	36 X'04'
DCBDSGPS	26 X'40'	DCBMRGET	50 X'40'	DCBRECCC	36 X'06'
DCBDSGTQ	27 X'20'	DCBMRGTQ	51 X'40'	DCBRECCM	36 X'02'
DCBDSGTX	27 X'40'	DCBMRIDW	51 X'08'	DCBRECD	36 X'20'
DCBDSGU	26 X'01'	DCBMRLCG	50 X'08'	DCBRECF	36 X'80'
DCBDSORG	26 (1A)	DCBMRLCP	51 X'08'	DCBRECFM	36 (24)
DCBDSRG1	26 (1A)	DCBMRLDM	51 X'08'	DCBRECKL	36 X'01'
DCBDSRG2	27 (1B)	DCBMRMVG	50 X'10'	DCBRECL	36 X'CO'
DCBDVTRM	17 X'4F'	DCBMRMVP	51 X'10'	DCBRECLA	36 X'EO'
DCBDYNB	100 (64)	DCBMRPTQ	50 X'40'	DCBRECSB	36 X'08'
DCBEODA	33 (21)	DCBMRPT1	50 X'04'	DCBRECTO	36 X'20'
DCBEODAD	32 (20)	DCBMRPT2	51 X'04'	DCBRECU	36 X'CO'
DCBEX	49 X'40'	DCBMRPUT	51 X'40'	DCBRECV	36 X'40'
DCBEXLSA	37 (25)	DCBMRRD	50 X'20'	DCBREL	17 (11)
DCBEXLST	36 (24)	DCBMRRDI	50 X'08'	DCBRELB	16 (10)
DCBHIARC	32 (20)	DCBMRRDK	50 X'10'	DCBSQND	68 (44)
DCBH0	32 X'04'	DCBMRRDQ	51 X'20'	DCBSVCXA	29 (1D)
DCBH1	32 X'80'	DCBMRRDX	50 X'02'	DCBSVCXL	28 (1C)
DCBIBEC	49 X'CO'	DCBMRSBG	50 X'04'	DCBSVDEB	28 X'10'
DCBIBIOE	49 X'0C'	DCBMRSTI	51 X'01'	DCBSYNAD	56 (38)
DCBIBPCT	49 X'30'	DCBMRSTK	51 X'02'	DCBTIOT	40 (28)
DCBIFC12	49 X'10'	DCBMRSTL	51 X'80'	DCBUPDBT	28 X'30'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DCBUPDCM	28 X'40'				
DCBUPDT	28 X'20'				
DCBUQND	76 (4C)				
DCBWRITE	48 (30)				
DCBXARG	84 (54)				
DCBXARGA	85 (55)				
DCBXCNT	84 (54)				
DCB1DVDS	28 X'80'				

END OF DCB - BDAM

## **Data Control Block -- BTAM**

This data control block (DCB) describes data sets being processed by the basic telecommunications access method (BTAM) routines. The common interface and foundation extension exist for all DCB formats.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
BTAM LINE GROUP INTERFACE			
20	(14)	4 DCBBUFCB	ADDRESS OF BUFFER POOL CONTROL BLOCK
20	(14)	1 DCBBUFNO	NUMBER OF BUFFERS OBTAINED BY OPEN
21	(15)	3 DCBBUFCA	ADDRESS OF BUFFER POOL CONTROL BLOCK
24	(18)	2 DCBBUFL	BUFFER LENGTH
26	(1A)	2 DCBDSORG	DATA SET ORGANIZATION BEING USED
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG
	1...	.... DCBDSGIS	IS - INDEXED SEQUENTIAL ORGANIZATION
	.1..	.... DCBDSGPS	PS - PHYSICAL SEQUENTIAL ORGANIZATION
	..1.	.... DCBDSGDA	DA - DIRECT ORGANIZATION
	...1	.... DCBDSGCX	CX - BTAM LINE GROUP
	....	1... DCBDSGCQ	reserved
	....	.1.. DCBDSGMQ	RESERVED
	....	..1. DCBDSGPO	PO - PARTITIONED ORGANIZATION
	....	...1 DCBDSGU	U - UNMOVABLE, THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
	1...	.... DCBDSGGS	GS - GRAPHICS ORGANIZATION
	.1..	.... DCBDSGTX	TX - TCAM LINE GROUP
	..1.	.... DCBDSGTQ	TQ - TCAM MESSAGE QUEUE
	....	1... DCBACBM	ACCESS METHOD CONTROL BLOCK
28	(1C)	4 DCBIOBAD	BASE FOR ADDRESSING IOB'S (BASE = ADDRESS OF FIRST IOB MINUS LENGTH OF AN IOB)
28	(1C)	1 DCBDEVTP	INDEX TO DEVICE ENTRY IN THE DEVICE I/O DIRECTORY
29	(1D)	3 DCBIOBAA	SAME AS DCBIOBAD ABOVE
32	(20)	1 DCBHIARC	HIERARCHY FLAG BITS
32	(20)	1 DCBBFTEK	BUFFERING TECHNIQUE FLAG BITS
	1...	.... DCBH1	HIERARCHY 1 MAIN STORAGE*- BIT 5 IS ZERO
	.111	.... DCBBFT	BUFFERING TECHNIQUE
	..11.	.... DCBBFTA	QSAM LOCATE MODE PROCESSING OF SPANNED RECORDS - OPEN IS TO CONSTRUCT A RECORD AREA IF IT AUTOMATICALLY CONSTRUCTS BUFFERS
	...1.	.... DCBBFTR	FOR BSAM CREATE BDAM PROCESSING OF UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW. FOR BSAM INPUT PROCESSING OF UNBLOCKED SPANNED RECORDS
	.1..	.... DCBBFTS	SIMPLE BUFFERING - BIT 3 IS ZERO
	..1.	.... DCBBFTKR	UNBLOCKED SPANNED RECORDS - SOFTWARE TRACK OVERFLOW (BDAM)
	...1	.... DCBBFTE	EXCHANGE BUFFERING - BIT 1 IS ZERO
	....	1... DCBBFTKD	DYNAMIC BUFFERING (BTAM)
	....	.1.. DCBH0	HIERARCHY 0 MAIN STORAGE*- BIT 0 IS ZERO
	....	..11 DCBBFA	BUFFER ALIGNMENT
	....	..1. DCBBFAD	DOUBLEWORD BOUNDARY
	....	...1 DCBBFAF1	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
	....	..11 DCBBFAF2	FULLWORD NOT A DOUBLEWORD BOUNDARY, CODED IN DCB MACRO INSTRUCTION
33	(21)	1 DCBERROP	ERROR RECOVERY PROCEDURE BITS
34	(22)	1 DCBBUFCT	MAX NUMBER OF READ BUFFERS
35	(23)	1	RESERVED
36	(24)	4 DCBEXLST	ADDRESS OF USER-PROVIDED EXIT LIST

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
36	(24)	1 DCBEIOBX	SIZE OF IOB
37	(25)	3 DCBEXLSA	ADDRESS OF USER-PROVIDED EXIT LIST
33	(21)	1 DCBERROP	ERROR RECOVERY PROCEDURE BITS
	...	.... DCBERPT	ON-LINE TEST FACILITIES TO BE USED
	....	1... DCBERPC	THRESHOLD AND CUMULATIVE ERROR COUNTS TO BE MAINTAINED
	....	.1.. DCBERPW	TEXT-WRITE ERRORS TO BE RETRIED
	....	..1. DCBERPR	TEXT-READ ERRORS TO BE RETRIED
	....	...1 DCBERPN	IF ZERO, BASIC ERP TO BE FOLLOWED --- IF ONE, NO ERP TO BE FOLLOWED
34	(22)	1 DCBBUFCT	CONTAINS MAXIMUM NUMBER OF BUFFERS TO BE OBTAINED BY BTAM FOR READ OPERATION (DYNAMIC BUFFERING ONLY)
28	(1C)	1 DCBDEVTP	INDEX TO DEVICE ENTRY IN THE DEVICE I/O DIRECTORY
36	(24)	1 DCBEIOBX	SIZE OF EXTENDED IOB. SIZE OF AN IOB ASSOCIATED WITH THIS DCB
			FOUNDATION BEFORE OPEN
40	(28)	8 DCBDDNAM	NAME ON THE DD STATEMENT WHICH DEFINES THE DATA SET ASSOCIATED WITH THIS DCB
48	(30)	1 DCBOFLGS	FLAGS USED BY OPEN ROUTINE
	1...	.... DCBOFLWR	IF ZERO, LAST I/O OPERATION WAS READ OR POINT. IF ONE, LAST I/O OPERATION WAS WRITE.
	1...	.... DCBOFIOD	DATA SET IS BEING OPENED FOR INPUT OR OUTPUT (BDAM)
	.1..	.... DCBOFLRB	LAST I/O OPERATION WAS IN READ BACKWARD MODE
	..1.	.... DCBOFEOV	SET TO 1 BY EOVS WHEN IT CALLS CLOSE ROUTINE FOR CONCATENATION OF DATA SETS WITH UNLIKE ATTRIBUTES
	...1	.... DCBOFOPN	AN OPEN HAS BEEN SUCCESSFULLY COMPLETED
	....	1... DCBOFPPC	SET TO 1 BY PROBLEM PROGRAM TO INDICATE CONCATENATION OF UNLIKE ATTRIBUTES
	....	.1.. DCBOFTM	TAPE MARK HAS BEEN READ
	....	..1. DCBOFUEX	SET TO 0 BY AN I/O SUPPORT FUNCTION WHEN THAT FUNCTION TAKES A USER EXIT. SET TO ON RETURN FROM USER EXIT TO THE I/O SUPPORT FUNCTION WHICH TOOK THE EXIT.
	....	...1 DCBOFIOF	SET TO 1 BY AN I/O SUPPORT FUNCTION IF DCB IS TO BE PROCESSED BY THAT FUNCTION
49	(31)	1 DCBIFLG	FLAGS USED BY IOS IN COMMUNICATING ERROR CONDITIONS AND IN DETERMINING CORRECTIVE PROCEDURES
	11..	.... DCBIBEC	ERROR CORRECTION INDICATOR
	....	.... DCBIFNEP	NOT IN ERROR PROCEDURE
	.1..	.... DCBEX	ERROR CORRECTION OR IOS PAGE FIX IN PROCESS
	11..	.... DCBIFPEC	PERMANENT ERROR CORRECTION
	..11	.... DCBIBPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	..1.	.... DCBIFC9	CHANNEL 9 PRINTER CARRIAGE TAPE PUNCH SENSED
	...1	.... DCBIFC12	CHANNEL 12 PRINTER CARRIAGE TAPE PUNCH SENSED
	....	11.. DCBIBIOE	IOS ERROR ROUTINE USE INDICATOR
	....	.... DCBIFER	ALWAYS USE I/O SUPERVISOR ERROR ROUTINE
	....	.1.. DCBIFNE1	NEVER USE I/O SUPERVISOR ERROR ROUTINE
	....	.1.. DCBIFTIM	TEST IOS MASK (IMSK) FOR ERROR PROCEDURE (BTAM)
	....	1... DCBIFNE2	NEVER USE I/O SUPERVISOR ERROR ROUTINE
	....	11.. DCBIFNE3	NEVER USE I/O SUPERVISOR ERROR ROUTINE

OFFSET	LENGTH	NAME	DESCRIPTION
50	(32)	2 DCBMACR	MACRO INSTRUCTION REFERENCE
50	(32)	1 DCBMACR1	FIRST BYTE OF DCBMACR
	1...	.... DCBMRECP	EXECUTE CHANNEL PROGRAM (EXCP) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, QISAM, BDAM) --- RESERVED (BTAM)
	.1..	.... DCBMRFE	FOUNDATION EXTENSION IS PRESENT (EXCP)
	.1..	.... DCBMRGET	GET (QSAM, QISAM, TCAM)
	.1..	.... DCBMRPTQ	PUT FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (BTAM)
	..1.	.... DCBMRAPG	APPENDAGES ARE REQUIRED (EXCP)
	..1.	.... DCBMRRD	READ (BSAM, BPAM, BISAM, BDAM, BTAM)
	..1.	.... DCBMRWRQ	WRITE FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM)
	...1	.... DCBMRCI	COMMON INTERFACE (EXCP)
	...1	.... DCBMRMVG	MOVE MODE OF GET (QSAM, QISAM)
	...1	.... DCBMRRDK	KEY SEGMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BSAM, BPAM, BTAM)
	....	1... DCBMRLCG	LOCATE MODE OF GET (QSAM, QISAM)
	....	1... DCBMRRDI	ID ARGUMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
	....	.1.. DCBMRABC	USER'S PROGRAM MAINTAINS ACCURATE BLOCK COUNT (EXCP)
	....	.1.. DCBMRPT1	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
	....	.1.. DCBMRSBG	SUBSTITUTE MODE OF GET (QSAM)
	....	.1.. DCBMRDBF	DYNAMIC BUFFERING (BISAM, BDAM) --- ALWAYS ZERO (QISAM) --- RESERVED (BTAM)
	....	..1. DCBPGFXA	PAGE FIX APPENDAGE IS SPECIFIED (EXCP)
	....	..1. DCBMRCL	CNTRL (BSAM, QSAM)
	....	..1. DCBMRCHK	CHECK (BISAM)
	....	..1. DCBMRRDX	READ EXCLUSIVE (BDAM) --- RESERVED (BPAM, QISAM, BTAM)
	....	...1 DCBMRDMG	DATA MODE OF GET (QSAM)
	....	...1 DCBMRCK	CHECK (BDAM) --- RESERVED (EXCP, BSAM, BPAM, BISAM, QISAM, BTAM)
51	(33)	1 DCBMACR2	SECOND BYTE OF DCBMACR
	1...	.... DCBMRSTL	SETL (QISAM) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
	.1..	.... DCBMRPUT	PUT (QSAM, TCAM) - PUT OR PUTX (QISAM)
	.1..	.... DCBMRGTQ	GET FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)
	..1.	.... DCBMRWRT	WRITE (BSAM, BPAM, BISAM, BDAM, BTAM)
	..1.	.... DCBMRRDQ	READ FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM) --- RESERVED (EXCP)
	...1	.... DCBMRMVP	MOVE MODE OF PUT (QSAM, QISAM)
	...1	.... DCBMRWRK	KEY SEGMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
	....	1... DCBMR5WD	FIVE-WORD DEVICE INTERFACE (EXCP)
	....	1... DCBMRLDM	LOAD MODE BSAM (CREATE BDAM DATA SET) (BSAM)
	....	1... DCBMRLCP	LOCATE MODE OF PUT (QSAM, QISAM)
	....	1... DCBMRIDW	ID ARGUMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
	....	.1.. DCBMR4WD	FOUR-WORD DEVICE INTERFACE (EXCP)
	....	.1.. DCBMRPT2	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
	....	.1.. DCBMRTMD	SUBSTITUTE MODE (QSAM)
	....	.1.. DCBMRUIP	UPDATE IN PLACE (PUTX) (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BDAM, BTAM)
	....	..1. DCBMR3WD	THREE-WORD DEVICE INTERFACE (EXCP)
	....	..1. DCBMRCTL	CNTRL (BSAM, QSAM)
	....	..1. DCBMRSTK	SETL BY KEY (QISAM)



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	..1.	DCBMRAWR	ADD TYPE OF WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
....	...1	DCBMR1WD	ONE-WORD DEVICE INTERFACE (EXCP)
....	...1	DCBMRSWA	USER'S PROGRAM HAS PROVIDED A SEGMENT WORK AREA POOL (BSAM CREATE BDAM, BDAM)
....	...1	DCBMRDMD	DATA MODE (QSAM)
....	...1	DCBMRSTI	SETL BY ID (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)
FOUNDATION AFTER OPEN			
40	(28)	2 DCBTIOT	OFFSET FROM TIOT ORIGIN TO TIOELNGH FIELD IN TIOT ENTRY FOR DD STATEMENT ASSOCIATED WITH THIS DCB
42	(2A)	2 DCBMACRF	SAME AS DCBMACR BEFORE OPEN
42	(2A)	1 DCBMACF1	FIRST BYTE OF DCBMACRF
43	(2B)	1 DCBMACF2	SECOND BYTE OF DCBMACRF
44	(2C)	4 DCBDEBAD	ADDRESS OF ASSOCIATED DEB
44	(2C)	1 DCBIFLGS	SAME AS DCBIFLG BEFORE OPEN
	11..	.... DCBIFEC	ERROR CORRECTION INDICATOR
	..11	.... DCBIFPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	....	11.. DCBIFIOE	IOS ERROR ROUTINE USE INDICATOR
45	(2D)	3 DCBDEBA	ADDRESS OF ASSOCIATED DEB
48	(30)	4 DCBREAD	ADDRESS OF READ MODULE
48	(30)	4 DCBWRITE	ADDRESS OF WRITE MODULE BTAM INTERFACE
52	(34)	4 DCBLERB	ADDRESS OF LINE ERROR BLOCK

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	28 (1C)	DCBIFER	49 X'00'	DCBMR1WD	51 X'01'
	33 (21)	DCBIFIOE	44 X'0C'	DCBMR3WD	51 X'02'
	34 (22)	DCBIFLG	49 (31)	DCBMR4WD	51 X'04'
	35 (23)	DCBIFLGS	44 (2C)	DCBMR5WD	51 X'08'
	36 (24)	DCBIFNEP	49 X'00'	DCBOFE0V	48 X'20'
DCBACBM	27 X'08'	DCBIFNE1	49 X'04'	DCBOFI0D	48 X'80'
DCBBFA	32 X'03'	DCBIFNE2	49 X'08'	DCBOFI0F	48 X'01'
DCBBFAD	32 X'02'	DCBIFNE3	49 X'0C'	DCBOFLGS	48 (30)
DCBBFAF1	32 X'01'	DCBIFPCT	44 X'30'	DCBOFLRB	48 X'40'
DCBBFAF2	32 X'03'	DCBIFPEC	49 X'0C'	DCBOFLWR	48 X'80'
DCBBFT	32 X'70'	DCBIFTIM	49 X'04'	DCBOFOPN	48 X'10'
DCBBFTA	32 X'60'	DCBIOBAA	29 (1D)	DCBOFP0C	48 X'08'
DCBBFTE	32 X'10'	DCBIOBAD	28 (1C)	DCBOFTM	48 X'04'
DCBBFTEK	32 (20)	DCBLERB	52 (34)	DCBOFU0X	48 X'02'
DCBBFTKD	32 X'08'	DCBMACF1	42 (2A)	DCBPGFXA	50 X'30'
DCBBFTKR	32 X'20'	DCBMACF2	43 (2B)	DCBREAD	48 (30)
DCBBFTR	32 X'20'	DCBMACR	50 (32)	DCBTI0T	40 (28)
DCBBFTS	32 X'40'	DCBMACRF	42 (2A)	DCBWRITE	48 (30)
DCBBUFCA	21 (15)	DCBMACR1	50 (32)		
DCBBUF0B	20 (14)	DCBMACR2	51 (33)		
DCBBUF0T	34 (22)	DCBMRABC	50 X'04'		
DCBBUFL	24 (18)	DCBMRAPG	50 X'20'		
DCBBUFNO	20 (14)	DCBMRARW	51 X'02'		
DCBDDNAM	40 (28)	DCBMRCHK	50 X'02'		
DCBDEBA	45 (2D)	DCBMRCI	50 X'10'		
DCBDEBAD	44 (2C)	DCBMRCK	50 X'01'		
DCBDEVTP	28 (1C)	DCBMR0RL	50 X'02'		
DCBDSGCQ	26 X'08'	DCBMR0CTL	51 X'02'		
DCBDSGCX	26 X'10'	DCBMR0DBF	50 X'04'		
DCBDSGDA	26 X'20'	DCBMR0DM	51 X'01'		
DCBDSGGS	27 X'80'	DCBMR0DMG	50 X'01'		
DCBDSGIS	26 X'80'	DCBMR0ECP	50 X'80'		
DCBDSGMQ	26 X'04'	DCBMR0FE	50 X'40'		
DCBDSGPO	26 X'02'	DCBMR0GET	50 X'40'		
DCBDSGPS	26 X'40'	DCBMR0GTQ	51 X'40'		
DCBDSGTQ	27 X'20'	DCBMR0IDW	51 X'08'		
DCBDSGTX	27 X'40'	DCBMR0LCG	50 X'08'		
DCBDSGU	26 X'01'	DCBMR0LCP	51 X'08'		
DCBDSORG	26 (1A)	DCBMR0LDM	51 X'08'		
DCBDSRG1	26 (1A)	DCBMR0MVG	50 X'10'		
DCBDSRG2	27 (1B)	DCBMR0MVP	51 X'10'		
DCBEIOBX	36 (24)	DCBMR0PTQ	50 X'40'		
DCBERPC	33 X'08'	DCBMR0PT1	50 X'04'		
DCBERPN	33 X'01'	DCBMR0PT2	51 X'04'		
DCBERPR	33 X'02'	DCBMR0PUT	51 X'40'		
DCBERPT	33 X'10'	DCBMR0RD	50 X'20'		
DCBERPW	33 X'04'	DCBMR0RDI	50 X'08'		
DCBERROP	33 (21)	DCBMR0RDK	50 X'10'		
DCBEX	49 X'40'	DCBMR0RDQ	51 X'20'		
DCBEXLSA	37 (25)	DCBMR0RDX	50 X'02'		
DCBEXLST	36 (24)	DCBMR0SBG	50 X'04'		
DCBHIARC	32 (20)	DCBMR0STI	51 X'01'		
DCBH0	32 X'04'	DCBMR0STK	51 X'02'		
DCBH1	32 X'80'	DCBMR0STL	51 X'80'		
DCBIBEC	49 X'0C'	DCBMR0SWA	51 X'01'		
DCBIBIOE	49 X'0C'	DCBMR0TMD	51 X'04'		
DCBIBPCT	49 X'30'	DCBMR0UIP	51 X'04'		
DCBIFC12	49 X'10'	DCBMR0WRK	51 X'10'		
DCBIFC9	49 X'20'	DCBMR0WRQ	50 X'20'		
DCBIFEC	44 X'0C'	DCBMR0WRT	51 X'20'		

END OF DCB - BTAM

## **Data Control Block -- GAM**

This data control block (DCB) is used by the graphics access method (GAM) routines. It has the common interface and foundation sections, which serve the same purposes for all access method routines, although the format may vary slightly among them. An interface section that contains information about a particular graphic device precedes the common section.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
GRAPHIC DEVICE INTERFACE			
0	(0)	12	RESERVED
12	(C)	2 DCBBRSA	BUFFER RESTART ADDRESS. BLANK BEFORE EXECUTION OF SECOND I/O OPERATION
14	(E)	1 DCBGTYPE	TYPE OF BUFFER MANAGEMENT AND ATTENTION HANDLING
	....	.... DCBGTEXP	EXPRESS
	....	...1 DCBGTBAS	BASIC
15	(F)	1	RESERVED
16	(10)	2 DCBBFRST	BLANK BEFORE EXECUTION OF OPEN ROUTINE. STARTING ADDRESS FOR BUFFER AFTER EXECUTION OF OPEN ROUTINE
18	(12)	2 DCBBFRSZ	BLANK BEFORE EXECUTION OF OPEN ROUTINE. SIZE OF BUFFER AFTER EXECUTION OF OPEN ROUTINE. COMMON INTERFACE
20	(14)	6	RESERVED
26	(1A)	2 DCBDSORG	DATA SET ORGANIZATION BEING USED
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG
	1...	.... DCBDSGIS	IS - INDEXED SEQUENTIAL ORGANIZATION
	.1..	.... DCBDSGPS	PS - PHYSICAL SEQUENTIAL ORGANIZATION
	..1.	.... DCBDSGDA	DA - DIRECT ORGANIZATION
	...1	.... DCBDSGCX	CX - BTAM LINE GROUP
	....	1... DCBDSGCQ	RESERVED
	....	.1.. DCBDSGMQ	RESERVED
	....	..1. DCBDSGPO	PO - PARTITIONED ORGANIZATION
	....	...1 DCBDSGU	U - UNMOVABLE, THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
	1...	.... DCBDSGGS	GS - GRAPHICS ORGANIZATION
	.1..	.... DCBDSGTX	TX - TCAM LINE GROUP
	..1.	.... DCBDSGTQ	TQ - TCAM MESSAGE QUEUE
	....	1... DCBACBM	ACCESS METHOD CONTROL BLOCK
28	(1C)	4 DCBIOBAD	BLANK BEFORE EXECUTION OF OPEN ROUTINE. ADDRESS OF STANDARD FIELDS OF FIRST IOB AFTER EXECUTION OF OPEN ROUTINE
FOUNDATION EXTENSION			
32	(20)	4 DCBPOLST	ADDRESS OF AREA WHERE A DCB LIST IS TO BE CONSTRUCTED FOR POLLING PURPOSES
32	(20)	1 DCBGNCP	NUMBER OF I/O INSTRUCTIONS TO BE ISSUED BEFORE A WAIT MACRO INSTRUCTION
33	(21)	3 DCBPOLSA	SAME AS DCBPOLST ABOVE
36	(24)	4 DCBEXLST	ADDRESS OF USER'S EXIT LIST
36	(24)	1	RESERVED
37	(25)	3 DCBEXLSA	ADDRESS OF USER'S EXIT LIST
FOUNDATION BEFORE OPEN			
40	(28)	8 DCBDDNAM	8-BYTE NAME FROM DD STATEMENT THAT DEFINES DATA SET ASSOCIATED WITH THIS DCB
48	(30)	1 DCBOFLG	FLAGS USED BY OPEN ROUTINE
	1...	.... DCBOFGRW	IF ZERO, LAST I/O OPERATION WAS GREAD. IF ONE, LAST I/O OPERATION WAS GWRITE.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
..1.	....	DCBOFEOV	SET TO 1 BY EOVS WHEN IT CALLS CLOSE ROUTINE FOR CONCATENATION OF DATA SETS WITH UNLIKE ATTRIBUTES
...1	....	DCBOFOPN	AN OPEN HAS BEEN SUCCESSFULLY COMPLETED
....	1...	DCBOFPPC	SET TO 1 BY PROBLEM PROGRAM TO INDICATE CONCATENATION OF UNLIKE ATTRIBUTES
....	.1..	DCBOFTM	TAPE MARK HAS BEEN READ
....	..1.	DCBOFUXX	SET TO 0 BY AN I/O SUPPORT FUNCTION WHEN THAT FUNCTION TAKES A USER EXIT. SET TO ON RETURN FROM USER EXIT TO THE I/O SUPPORT FUNCTION WHICH TOOK THE EXIT.
....	...1	DCBOFIOF	SET TO 1 BY AN I/O SUPPORT FUNCTION IF DCB IS TO BE PROCESSED BY THAT FUNCTION
49	(31)	1 DCBIFLG	SET TO ZERO BY GRAPHIC ROUTINES BUT USED BY IOS IN COMMUNICATING ERROR CONDITIONS AND IN DETERMINING CORRECTIVE PROCEDURES
50	(32)	2 DCBMACR	MACRO INSTRUCTION REFERENCE
50	(32)	1 DCBMACR1	FIRST BYTE OF DCBMACR
..1.	....	DCBMRRD	READ
....	..1.	DCBMRCRL	CNTRL
51	(33)	1 DCBMACR2	SECOND BYTE OF DCBMACR
..1.	....	DCBMRWRT	WRITE
....	..1.	DCBMRCTL	CNTRL
FOUNDATION AFTER OPEN			
40	(28)	2 DCBTIOT	OFFSET FROM TIOT ORIGIN TO DD ENTRY ASSOCIATED WITH THIS DCB
42	(2A)	2 DCBMACRF	SAME AS DCBMACR BEFORE OPEN
42	(2A)	1 DCBMACF1	FIRST BYTE OF DCBMACRF
43	(2B)	1 DCBMACF2	SECOND BYTE OF DCBMACRF
44	(2C)	4 DCBDEBAD	ADDRESS OF ASSOCIATED DEB
44	(2C)	1 DCBIFLGS	SAME AS DCBIFLG BEFORE OPEN
45	(2D)	3 DCBDEBA	ADDRESS OF ASSOCIATED DEB
48	(30)	4 DCBGIOCR	ADDRESS OF GRAPHICS I/O CONTROL ROUTINE
48	(30)	1 DCBOFLGS	SAME AS DCBOFLG BEFORE OPEN
49	(31)	3 DCBGIOCA	ADDRESS OF GRAPHICS I/O CONTROL ROUTINE

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	0 (0)				
	15 (F)				
	20 (14)				
	36 (24)				
DCBACBM	27 X'08'				
DCBBFRST	16 (10)				
DCBBFRSZ	18 (12)				
DCBBRSA	12 (C)				
DCBDDNAM	40 (28)				
DCBDEBA	45 (2D)				
DCBDEBAD	44 (2C)				
DCBDSGCQ	26 X'08'				
DCBDSGCX	26 X'10'				
DCBDSGDA	26 X'20'				
DCBDSGGS	27 X'80'				
DCBDSGIS	26 X'80'				
DCBDSGMQ	26 X'04'				
DCBDSGPO	26 X'02'				
DCBDSGPS	26 X'40'				
DCBDSGTQ	27 X'20'				
DCBDSGTX	27 X'40'				
DCBDSGU	26 X'01'				
DCBDSORG	26 (1A)				
DCBDSRG1	26 (1A)				
DCBDSRG2	27 (1B)				
DCBEXLSA	37 (25)				
DCBEXLST	36 (24)				
DCBGIOCA	49 (31)				
DCBGIOCR	48 (30)				
DCBGNCP	32 (20)				
DCBGTBAS	14 X'01'				
DCBGTEXP	14 X'00'				
DCBGTYPE	14 (E)				
DCBIFLG	49 (31)				
DCBIFLGS	44 (2C)				
DCBIOBAD	28 (1C)				
DCBMACF1	42 (2A)				
DCBMACF2	43 (2B)				
DCBMACR	50 (32)				
DCBMACRF	42 (2A)				
DCBMACR1	50 (32)				
DCBMACR2	51 (33)				
DCBMRCRL	50 X'02'				
DCBMRCTL	51 X'02'				
DCBMRRD	50 X'20'				
DCBMRWRT	51 X'20'				
DCBOFEOV	48 X'20'				
DCBOFGRW	48 X'80'				
DCBOFIOF	48 X'01'				
DCBOFLG	48 (30)				
DCBOFLGS	48 (30)				
DCBOFOPN	48 X'10'				
DCBOFPPC	48 X'08'				
DCBOFTM	48 X'04'				
DCBOFUEX	48 X'02'				
DCBPOLSA	33 (21)				
DCBPOLST	32 (20)				
DCBTIOT	40 (28)				

END OF DCB - GAM

## Data Control Block -- TCAM

The format of the data control block (DCB) used by the telecommunications access method (TCAM) depends on the type of data set it represents. The five types of DCB formats used in TCAM message control programs and application programs are:

- Line groups.
- Message queues.
- Checkpoint data set.
- Message Logging.
- Application programs.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
TCAM LINE GROUP INTERFACE			
20	(14)	4 DCBMHA	SAME AS DCBMH BELOW
20	(14)	1 DCBBUFIN	NUMBER OF INPUT BUFFERS (BITS 0-3)
20	(14)	1 DCBBUFOU	NUMBER OF OUTPUT BUFFERS (BITS 4-7)
	1111	.... DCBBFIN	NUMBER OF BUFFERS ASSIGNED INITIALLY FOR RECEIVING OPERATIONS, FOR EACH LINE IN LINE GROUP
	....	1111 DCBBFOUT	NUMBER OF BUFFERS ASSIGNED INITIALLY FOR SENDING OPERATIONS, FOR EACH LINE IN LINE GROUP
21	(15)	3 DCBMH	ADDRESS OF MESSAGE HANDLER FOR THIS LINE GROUP
24	(18)	1 DCBINTVL	NUMBER OF SECONDS OF INVITATION DELAY
25	(19)	1 DCBPCI	PROGRAM CONTROLLED INTERRUPTION HANDLING
	1...	.... DCBPCIX1	PCI=(X,)
	.1..	.... DCBPCIX2	PCI=(,X)
	..1.	.... DCBPCIA1	PCI=(A,)
	...1	.... DCBPCIA2	PCI=(,A)
	....	1... DCBPCIN1	PCI=(N,)
	....	.1.. DCBPCIN2	PCI=(,N)
	....	..1. DCBPCIR1	PCI=(R,)
	....	...1 DCBPCIR2	PCI=(,R)
26	(1A)	2 DCBDSORG	DATA SET ORGANIZATION BEING USED
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG
	1...	.... DCBDSGIS	IS - INDEXED SEQUENTIAL ORGANIZATION
	.1..	.... DCBDSGPS	PS - PHYSICAL SEQUENTIAL ORGANIZATION
	..1.	.... DCBDSGDA	DA - DIRECT ORGANIZATION
	...1	.... DCBDSGCX	CX - BTAM LINE GROUP
	....	1... DCBDSGCQ	RESERVED
	....	.1.. DCBDSGMQ	RESERVED
	....	..1. DCBDSGPO	PO - PARTITIONED ORGANIZATION
	....	...1 DCBDSGU	U - UNMOVABLE, THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
	1...	.... DCBDSGGS	GS - GRAPHICS ORGANIZATION
	.1..	.... DCBDSGTX	TX - TCAM LINE GROUP
	..1.	.... DCBDSGTQ	TQ - TCAM MESSAGE QUEUE
	....	1... DCBACBM	ACCESS METHOD CONTROL BLOCK
28	(1C)	1 DCBBUFMA	MAXIMUM NUMBER OF BUFFERS TO BE USED FOR DATA TRANSFER FOR EACH LINE IN THIS GROUP QTAM LINE GROUP INTERFACE
20	(14)	4 DCBCLPS	ADDRESS OF LINE PROCEDURE SPECIFICATION ROUTINE
20	(14)	1 DCBBUFRQ	NUMBER OF BUFFERS REQUESTED FOR A READ OR WRITE OPERATION
21	(15)	3 DCBCLPSA	SAME AS DCBCLPS ABOVE
24	(18)	1 DCBINTVL	NUMBER OF SECONDS OF INTENTIONAL DELAY BETWEEN PASSES THROUGH A POLLING LIST FOR NONSWITCHED LINES
25	(19)	1	RESERVED
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
28	(1C)	4 DCBIOBAD	ADDRESS OF FIRST IOB
28	(1C)	1 DCBDEVTP	DEVICE TYPE POINTER
29	(1D)	3 DCBIOBAA	ADDRESS OF FIRST IOB
32	(20)	4 DCBTRANA	ADDRESS OF TRANSLATION TABLE
32	(20)	1 DCBCPRI	COMMUNICATION PRIORITY BITS
33	(21)	3 DCBTRANS	ADDRESS OF TRANSLATION TABLE
32	(20)	4 DCBLCBAD	BASE FOR ADDRESSING LCB'S (BASE = ADDRESS OF FIRST LCB MINUS LENGTH OF ONE LCB)
32	(20)	1 DCBCPRI	COMMUNICATION PRIORITY BITS
	....	.1.. DCBCPR	RECEIVING HAS PRIORITY
	....	..1. DCBCPE	RECEIVING AND SENDING HAVE EQUAL PRIORITY
	....	...1 DCBCPS	SENDING HAS PRIORITY
33	(21)	3 DCBLCBA	SAME AS DCBLCBAD ABOVE
36	(24)	4 DCBEXLST	ADDRESS OF EXIT LIST
36	(24)	1 DCBEIOBX	EXTENDED IOB INDEX. SIZE OF LCB
37	(25)	3 DCBEXLSA	ADDRESS OF EXIT LIST
PROBLEM PROGRAM MESSAGE QUEUE INTERFACE			
20	(14)	4 DCBTRMAD	ADDRESS OF USER-PROVIDED AREA IN WHICH THE TERMINAL NAME IS STORED
20	(14)	1 DCBBUFRQ	NUMBER OF BUFFERS TO BE FILLED FROM THE DIRECT ACCESS QUEUE
21	(15)	3 DCBTRMA	SAME AS DCBTRMAD ABOVE
24	(18)	2 DCBSOWA	SIZE OF USER-PROVIDED WORK AREA
26	(1A)	1 DCBDSRG1	FIRST BYTE OF DCBDSORG
27	(1B)	1 DCBDSRG2	SECOND BYTE OF DCBDSORG
28	(1C)	4 DCBIOBAD	BASE FOR ADDRESSING IOB'S
28	(1C)	4 DCBSEGAD	ADDRESS OF CURRENT SEGMENT
32	(20)	1 DCBTHRES	FOR NON-REUSABLE MESSAGE QUEUE RECORDS, PERCENTAGE OF NON-REUSABLE DISK MESSAGE QUEUE RECORDS TO BE USED BEFORE A FLUSH CLOSDOWN OF THE SYSTEM IS INITIATED. FOR REUSABLE MESSAGE QUEUE RECORDS AND CHECKPOINT RECORDS, THIS FIELD IS RESERVED
32	(20)	4 DCBEODAD	ADDRESS OF USER-PROVIDED ROUTINE
36	(24)	1 DCBRECFM	RECORD FORMAT
	....	..1. DCBRECR	RECORD
	....	.1.. DCBREC	MESSAGE
	....	1... DCBRECS	SEGMENT
37	(25)	3 DCBEXLSA	ADDRESS OF EXIT LIST
FOUNDATION BEFORE OPEN			
40	(28)	8 DCBDDNAM	NAME ON THE DD STATEMENT WHICH DEFINES THE DATA SET ASSOCIATED WITH THIS DCB
48	(30)	1 DCBOFLGS	FLAGS USED BY OPEN ROUTINE
	1...	.... DCBOFLWR	IF ZERO, LAST I/O OPERATION WAS READ OR POINT. IF ONE, LAST I/O OPERATION WAS WRITE.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
1...	....	DCBOFIOD	DATA SET IS BEING OPENED FOR INPUT OR OUTPUT (BDAM)
.1..	....	DCBOFLRB	LAST I/O OPERATION WAS IN READ BACKWARD MODE
..1.	....	DCBOFEV	SET TO 1 BY EOVS WHEN IT CALLS CLOSE ROUTINE FOR CONCATENATION OF DATA SETS WITH UNLIKE ATTRIBUTES
...1	....	DCBOFOPN	AN OPEN HAS BEEN SUCCESSFULLY COMPLETED
....	1...	DCBOFPPC	SET TO 1 BY PROBLEM PROGRAM TO INDICATE CONCATENATION OF UNLIKE ATTRIBUTES
....	.1..	DCBOFTM	TAPE MARK HAS BEEN READ
....	..1.	DCBOFUFX	SET TO 0 BY AN I/O SUPPORT FUNCTION WHEN THAT FUNCTION TAKES A USER EXIT. SET TO ON RETURN FROM USER EXIT TO THE I/O SUPPORT FUNCTION WHICH TOOK THE EXIT.
....	...1	DCBOFIOF	SET TO 1 BY AN I/O SUPPORT FUNCTION IF DCB IS TO BE PROCESSED BY THAT FUNCTION
49	(31)	1 DCBIFLG	FLAGS USED BY IOS IN COMMUNICATING ERROR CONDITIONS AND IN DETERMINING CORRECTIVE PROCEDURES
11..	....	DCBIBEC	ERROR CORRECTION INDICATOR
....	....	DCBIFNEP	NOT IN ERROR PROCEDURE
.1..	....	DCBEX	ERROR CORRECTION OR IOS PAGE FIX IN PROCESS
11..	....	DCBIFPEC	PERMANENT ERROR CORRECTION
..11	....	DCBIBPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
..1.	....	DCBIFC9	CHANNEL 9 PRINTER CARRIAGE TAPE PUNCH SENSED
...1	....	DCBIFC12	CHANNEL 12 PRINTER CARRIAGE TAPE PUNCH SENSED
....	11..	DCBIBIOE	IOS ERROR ROUTINE USE INDICATOR
....	....	DCBIFER	ALWAYS USE I/O SUPERVISOR ERROR ROUTINE
....	.1..	DCBIFNE1	NEVER USE I/O SUPERVISOR ERROR ROUTINE
....	.1..	DCBIFTIM	TEST IOS MASK (IMSK) FOR ERROR PROCEDURE (BTAM)
....	1...	DCBIFNE2	NEVER USE I/O SUPERVISOR ERROR ROUTINE
....	11..	DCBIFNE3	NEVER USE I/O SUPERVISOR ERROR ROUTINE
50	(32)	2 DCBMACR	MACRO INSTRUCTION REFERENCE
50	(32)	1 DCBMACR1	FIRST BYTE OF DCBMACR
1...	....	DCBMRECP	EXECUTE CHANNEL PROGRAM (EXCP) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, QISAM, BDAM) --- RESERVED (BTAM)
.1..	....	DCBMRFE	FOUNDATION EXTENSION IS PRESENT (EXCP)
.1..	....	DCBMRGET	GET (QSAM, QISAM, TCAM)
.1..	....	DCBMRPTQ	PUT FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (BTAM)
..1.	....	DCBMRAPG	APPENDAGES ARE REQUIRED (EXCP)
..1.	....	DCBMRRD	READ (BSAM, BPAM, BISAM, BDAM, BTAM)
..1.	....	DCBMRWRQ	WRITE FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM)
...1	....	DCBMRCI	COMMON INTERFACE (EXCP)
...1	....	DCBMRMVG	MOVE MODE OF GET (QSAM, QISAM)
...1	....	DCBMRRDK	KEY SEGMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BSAM, BPAM, BTAM)
....	1...	DCBMLCG	LOCATE MODE OF GET (QSAM, QISAM)
....	1...	DCBMRRDI	ID ARGUMENT WITH READ (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)
....	.1..	DCBMRABC	USER'S PROGRAM MAINTAINS ACCURATE BLOCK COUNT (EXCP)
....	.1..	DCBMRPT1	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)
....	.1..	DCBMRSBG	SUBSTITUTE MODE OF GET (QSAM)
....	.1..	DCBMRDBF	DYNAMIC BUFFERING (BISAM, BDAM) --- ALWAYS ZERO (QISAM) --- RESERVED (BTAM)
....	..1.	DCBPGFXA	PAGE FIX APPENDAGE IS SPECIFIED (EXCP)
....	..1.	DCBMRCL	CNTRL (BSAM, QSAM)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>	
....	..1.	DCBMRCHK	CHECK (BISAM)	
....	..1.	DCBMRRDY	READ EXCLUSIVE (BDAM) --- RESERVED (BPAM, QISAM, BTAM)	
....	...1	DCBMRDMG	DATA MODE OF GET (QSAM)	
....	...1	DCBMRCK	CHECK (BDAM) --- RESERVED (EXCP, BSAM, BPAM, BISAM, QISAM, BTAM)	
51	(33)	1	DCBMACR2	SECOND BYTE OF DCBMACR
1...	....	DCBMRSTL	SETL (QISAM) --- ALWAYS ZERO (BSAM, QSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)	
.1..	....	DCBMRPUT	PUT (QSAM, TCAM) - PUT OR PUTX (QISAM)	
.1..	....	DCBMRGTQ	GET FOR MESSAGE GROUP (QTAM)*--- ALWAYS ZERO (BSAM, BPAM, BISAM, BDAM) --- RESERVED (EXCP, BTAM)	
..1.	....	DCBMRWRT	WRITE (BSAM, BPAM, BISAM, BDAM, BTAM)	
..1.	....	DCBMRRDQ	READ FOR LINE GROUP (QTAM)*--- ALWAYS ZERO (QSAM, QISAM) --- RESERVED (EXCP)	
...1	....	DCBMRMVP	MOVE MODE OF PUT (QSAM, QISAM)	
...1	....	DCBMRWRK	KEY SEGMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (EXCP, BSAM, BPAM, BTAM)	
....	1...	DCBMR5WD	FIVE-WORD DEVICE INTERFACE (EXCP)	
....	1...	DCBMRLLDM	LOAD MODE BSAM (CREATE BDAM DATA SET) (BSAM)	
....	1...	DCBMRLLCP	LOCATE MODE OF PUT (QSAM, QISAM)	
....	1...	DCBMRIDW	ID ARGUMENT WITH WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)	
....	.1..	DCBMR4WD	FOUR-WORD DEVICE INTERFACE (EXCP)	
....	.1..	DCBMRPT2	POINT (WHICH IMPLIES NOTE) (BSAM, BPAM)	
....	.1..	DCBMRMTD	SUBSTITUTE MODE (QSAM)	
....	.1..	DCBMRUIP	UPDATE IN PLACE (PUTX) (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BDAM, BTAM)	
....	..1.	DCBMR3WD	THREE-WORD DEVICE INTERFACE (EXCP)	
....	..1.	DCBMRCTL	CNTRL (BSAM, QSAM)	
....	..1.	DCBMRSTK	SETL BY KEY (QISAM)	
....	..1.	DCBMRRAWR	ADD TYPE OF WRITE (BDAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)	
....	...1	DCBMR1WD	ONE-WORD DEVICE INTERFACE (EXCP)	
....	...1	DCBMRSWA	USER'S PROGRAM HAS PROVIDED A SEGMENT WORK AREA POOL (BSAM CREATE BDAM, BDAM)	
....	...1	DCBMRDMD	DATA MODE (QSAM)	
....	...1	DCBMRSTI	SETL BY ID (QISAM) --- ALWAYS ZERO (BISAM) --- RESERVED (BPAM, BTAM)	

FOUNDATION AFTER OPEN

40	(28)	2	DCBTIOT	OFFSET FROM TIOT ORIGIN TO TIOELNGH FIELD IN TIOT ENTRY FOR DD STATEMENT ASSOCIATED WITH THIS DCB
42	(2A)	2	DCBMACRF	SAME AS DCBMACR BEFORE OPEN
42	(2A)	1	DCBMACF1	FIRST BYTE OF DCBMACRF
43	(2B)	1	DCBMACF2	SECOND BYTE OF DCBMACRF
44	(2C)	4	DCBDEBAD	ADDRESS OF ASSOCIATED DEB
44	(2C)	1	DCBIFLGS	SAME AS DCBIFLG BEFORE OPEN
	11..	....	DCBIFEC	ERROR CORRECTION INDICATOR
	..11	....	DCBIFPCT	PRINTER CARRIAGE TAPE PUNCH INDICATOR
	....	11..	DCBIFIOE	IOS ERROR ROUTINE USE INDICATOR
45	(2D)	3	DCBDEBA	ADDRESS OF ASSOCIATED DEB

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
TCAM LINE GROUP EXTENSION			
48	(30)	4 DCBSCTAB	ADDRESS OF SPECIAL CHARACTERS TABLE (SCT)
48	(30)	1 DCBOFLGS	FLAGS USED BY OPEN ROUTINE
49	(31)	3 DCBSCTAD	ADDRESS OF SPECIAL CHARACTERS TABLE (SCT)
52	(34)	1 DCBILCT	COUNT OF INVITATION LISTS
53	(35)	1 DCBUNTCT	BEFORE OPEN - NUMERICAL VALUE OF SCT. AFTER OPEN - COUNT OF UNITS FOR 1 BUFFER.
54	(36)	2 DCBBUFSI	SIZE OF ALL BUFFERS USED FOR THIS LINE GROUP
56	(38)	4 DCBRESER	NUMBER OF RESERVED BYTES IN BUFFERS
56	(38)	1 DCBRESB1	NUMBER OF BYTES RESERVED IN THE BUFFER RECEIVING FIRST INCOMING SEGMENT OF A MESSAGE
57	(39)	1 DCBRESB2	NUMBER OF BYTES RESERVED IN ALL BUFFERS EXCEPT THE ONE CONTAINING FIRST SEGMENT OF A MESSAGE
58	(3A)	2	RESERVED
THE FOLLOWING 4 BYTES MAY BE REPEATED 'N' TIMES			
60	(3C)	4 DCBINVLI	ADDRESS OF INVITATION LIST
60	(3C)	1 DCBINVCI	TYPE OF COMMUNICATION INTERFACE FOR 2701 DATA ADAPTER UNIT
	..1. ....	DCBINVB1	IF ZERO, UNIT (A,) IF ONE, UNIT (B,)
	.... 1...	DCBINVB2	IF ZERO, UNIT (,A) IF ONE, UNIT (,B)
61	(3D)	3 DCBINVLA	ADDRESS OF INVITATION LIST
TCAM MESSAGE QUEUE INTERFACE			
52	(34)	1 DCBOPTCD	OPTION CODES
	1... ....	DCBOPTWP	SOURCE OR DESTINATION NAME PRECEDES MESSAGE (AFTER CONTROL BYTE) (TCAM PROCESS QUEUE)
	.1.. ....	DCBOPTUM	WORK UNIT IS A MESSAGE. DEFAULT WORK UNIT IS A RECORD. (TCAM PROCESS QUEUE)
	..1. ....	DCBOPTCB	CONTROL BYTE PRECEDES WORK UNIT (TCAM PROCESS QUEUE)
	..1. ....	DCBOPTCP	CHECKPOINT DATA SET
	.... ..1.	DCBOPTIM	NON-REUSABLE MESSAGE QUEUE DATA SET
	.... ...1	DCBOPTRM	REUSABLE MESSAGE QUEUE DATA SET
53	(35)	9	RESERVED
62	(3E)	2 DCBBLKSI	BLOCK SIZE

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	24 (18)	DCBIFLGS	44 (2C)	DCBMRSTL	51 X'80'
	25 (19)	DCBIFNEP	49 X'00'	DCBMRSWA	51 X'01'
	26 (1A)	DCBIFNE1	49 X'04'	DCBMRMTD	51 X'04'
	27 (1B)	DCBIFNE2	49 X'08'	DCBMRUIP	51 X'04'
	32 (20)	DCBIFNE3	49 X'0C'	DCBMRWRK	51 X'10'
	20 (14)	DCBIFPCT	44 X'30'	DCBMRWRQ	50 X'20'
	26 (1A)	DCBIFPEC	49 X'C0'	DCBMRWRT	51 X'20'
	27 (1B)	DCBIFTIM	49 X'04'	DCBMR1WD	51 X'01'
	28 (1C)	DCBILCT	52 (34)	DCBMR3WD	51 X'02'
	37 (25)	DCBINTVL	24 (18)	DCBMR4WD	51 X'04'
	48 (30)	DCBINVB1	60 X'20'	DCBMR5WD	51 X'08'
	58 (3A)	DCBINVB2	60 X'08'	DCBOFE0V	48 X'20'
	53 (35)	DCBINVCI	60 (3C)	DCBOFI0D	48 X'80'
DCBACBM	27 X'08'	DCBINVLA	61 (3D)	DCBOFIOF	48 X'01'
DCBBFIN	20 X'F0'	DCBINVLI	60 (3C)	DCBOFLGS	48 (30)
DCBBFOUT	20 X'0F'	DCBIOBAA	29 (1D)	DCBOFLRB	48 X'40'
DCBBLKSI	62 (3E)	DCBIOBAD	28 (1C)	DCBOFLWR	48 X'80'
DCBBUFIN	20 (14)	DCBLCBA	33 (21)	DCBOFOPN	48 X'10'
DCBBUFMA	28 (1C)	DCBLCBAD	32 (20)	DCBOFPFC	48 X'08'
DCBBUFOU	20 (14)	DCBMACF1	42 (2A)	DCBOFTM	48 X'04'
DCBBUFRQ	20 (14)	DCBMACF2	43 (2B)	DCBOFUEX	48 X'02'
DCBBUFSI	54 (36)	DCBMACR	50 (32)	DCBOPTCB	52 X'20'
DCBCLPS	20 (14)	DCBMACRF	42 (2A)	DCBOPTCD	52 (34)
DCBCLPSA	21 (15)	DCBMACR1	50 (32)	DCBOPTCP	52 X'20'
DCBCPE	32 X'02'	DCBMACR2	51 (33)	DCBOPTIM	52 X'02'
DCBCPR	32 X'04'	DCBMH	21 (15)	DCBOPTRM	52 X'01'
DCBCPRI	32 (20)	DCBMHA	20 (14)	DCBOPTUM	52 X'40'
DCBCPS	32 X'01'	DCBMRABC	50 X'04'	DCBOPTWP	52 X'80'
DCBDDNAM	40 (28)	DCBMRAPG	50 X'20'	DCBPCI	25 (19)
DCBDEBA	45 (2D)	DCBMRARW	51 X'02'	DCBPCIA1	25 X'20'
DCBDEBAD	44 (2C)	DCBMRCHK	50 X'02'	DCBPCIA2	25 X'10'
DCBDEVTP	28 (1C)	DCBMRCI	50 X'10'	DCBPCIN1	25 X'08'
DCBDSGCQ	26 X'08'	DCBMRCK	50 X'01'	DCBPCIN2	25 X'04'
DCBDSGCX	26 X'10'	DCBMRCL	50 X'02'	DCBPCIR1	25 X'02'
DCBDSGDA	26 X'20'	DCBMRCTL	51 X'02'	DCBPCIR2	25 X'01'
DCBDSGGS	27 X'80'	DCBMRDBF	50 X'04'	DCBPCIX1	25 X'80'
DCBDSGIS	26 X'80'	DCBMRDMD	51 X'01'	DCBPCIX2	25 X'40'
DCBDSGMQ	26 X'04'	DCBMRDMG	50 X'01'	DCBPGFXA	50 X'02'
DCBDSGPO	26 X'02'	DCBMRCEP	50 X'80'	DCBRECFM	36 (24)
DCBDSGPS	26 X'40'	DCBMRFE	50 X'40'	DCBRECG	36 X'04'
DCBDSGTQ	27 X'20'	DCBMRGET	50 X'40'	DCBRECR	36 X'02'
DCBDSGTX	27 X'40'	DCBMRGTQ	51 X'40'	DCBRECS	36 X'08'
DCBDSGU	26 X'01'	DCBMRIDW	51 X'08'	DCBRESB1	56 (38)
DCBDSORG	26 (1A)	DCBMRLCG	50 X'08'	DCBRESB2	57 (39)
DCBDSRG1	26 (1A)	DCBMRLCP	51 X'08'	DCBRESER	56 (38)
DCBDSRG2	27 (1B)	DCBMR LDM	51 X'08'	DCBSCTAB	48 (30)
DCBEIOBX	36 (24)	DCBMRMVG	50 X'10'	DCBSCTAD	49 (31)
DCBEODAD	32 (20)	DCBMRMVP	51 X'10'	DCBSEGAD	28 (1C)
DCBEX	49 X'40'	DCBMRPTQ	50 X'40'	DCBSOWA	24 (18)
DCBEXLSA	37 (25)	DCBMRPT1	50 X'04'	DCBTHRES	32 (20)
DCBEXLST	36 (24)	DCBMRPT2	51 X'04'	DCBTIOT	40 (28)
DCBIBEC	49 X'C0'	DCBMRPUT	51 X'40'	DCBTRANA	32 (20)
DCBIBIOE	49 X'0C'	DCBMRRD	50 X'20'	DCBTRANS	33 (21)
DCBIBPCT	49 X'30'	DCBMRRDI	50 X'08'	DCBTRMA	21 (15)
DCBIFC12	49 X'10'	DCBMRRDK	50 X'10'	DCBTRMAD	20 (14)
DCBIFC9	49 X'20'	DCBMRRDQ	51 X'20'	DCBUNTCT	53 (35)
DCBIFEC	44 X'C0'	DCBMRRDY	50 X'02'		
DCBIFER	49 X'00'	DCBMRSBG	50 X'04'		
DCBIFIOE	44 X'0C'	DCBMRSTI	51 X'01'		
DCBIFLG	49 (31)	DCBMRSTK	51 X'02'		

END OF DCB - TCAM



## Data Extent Block

The data extent block (DEB) contains an extension of the information in the DCB. Each DEB is associated with a DCB, and the two point to each other. The DEB contains information concerning the physical characteristics of the data set and other information that is used by the control program.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
APPENDAGE VECTOR TABLE SECTION OF THE DEB			
0	(0)	8 DEBAVT	APPENDAGE VECTOR TABLE
0	(0)	4 DEBEOEA	ADDRESS OF END-OF-EXTENT APPENDAGE
0	(0)	1 DEBEOEAB	FLAG BYTE
	1...	.... DEBRSV19	RESERVED
	.1..	.... DEBRSV20	RESERVED
	..1.	.... DEBRSV21	RESERVED
	...1	.... DEBRSV22	RESERVED
	....	XXXX DEBEOENP	NUMBER OF PAGES TO BE FIXED FOR THE END OF EXTENT APPENDAGE
1	(1)	3 DEBEOEAD	ADDRESS OF END-OF-EXTENT APPENDAGE
4	(4)	4 DEBSIOA	ADDRESS OF START I/O APPENDAGE
4	(4)	1 DEBSIOAB	FLAG BYTE
	1...	.... DEBPGFX	ADDRESS IN FOLLOWING 3 BYTES CAN BE USED TO DETERMINE THE ENTRY POINT FOR THE PAGE FIX (PGFX) APPENDAGE. THE ENTRY POINT FOR THE PGFX APPENDAGE IS COMPUTED BY ADDING 4 TO THE ADDRESS OF THE ENTRY POINT TO THE SIO APPENDAGE.
	.1..	.... DEBSIOX	IF ZERO, DO NOT ENTER SIO APG WHEN ERP ACTIVE. IF ONE, ENTER SIO APG EVEN WHEN ERP ACTIVE.
	..1.	.... DEBIOVR	IF ONE, IT INDICATES THAT AN EXCPVR REQUEST IS VALID. IF ZERO, IT INDICATES THAT AN EXCPVR REQUEST IS INVALID AND WILL NOT BE ALLOWED TO GO THROUGH
	...1	.... DEBRSV23	RESERVED
	....	XXXX DEBSIONP	NUMBER OF PAGES TO BE FIXED FOR THE SIO APPENDAGE
5	(5)	3 DEBSIOAD	ADDRESS OF START I/O APPENDAGE
8	(8)	4 DEBPCIA	ADDRESS OF PCI APPENDAGE
8	(8)	1 DEBPCIAB	FLAG BYTE
	1...	.... DEBRSV24	RESERVED
	.1..	.... DEBRSV25	RESERVED
	..1.	.... DEBRSV26	RESERVED
	...1	.... DEBRSV27	RESERVED
	....	XXXX DEBPCINP	NUMBER OF PAGES TO BE FIXED FOR THE PCI APPENDAGE
9	(9)	3 DEBPCIAD	ADDRESS OF PCI APPENDAGE
12	(C)	4 DEBCEA	ADDRESS OF CHANNEL-END APPENDAGE
12	(C)	1 DEBCEAB	FLAG BYTE
	1...	.... DEBRSV28	RESERVED
	.1..	.... DEBRSV29	RESERVED
	..1.	.... DEBRSV30	RESERVED
	...1	.... DEBRSV31	RESERVED
	....	XXXX DEBCENP	NUMBER OF PAGES TO BE FIXED FOR THE CHANNEL END APPENDAGE
13	(D)	3 DEBCEAD	ADDRESS OF CHANNEL-END APPENDAGE
16	(10)	4 DEBXCEA	ADDRESS OF ABNORMAL-END APPENDAGE
16	(10)	1 DEBXCEAB	FLAG BYTE
	1...	.... DEBRSV32	RESERVED
	.1..	.... DEBRSV33	RESERVED
	..1.	.... DEBRSV34	RESERVED
	...1	.... DEBRSV35	RESERVED



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	XXXX	DEBXCENP	NUMBER OF PAGES TO BE FIXED FOR THE ABNORMAL END APPENDAGE
17	(11)	3 DEBXCCEAD	ADDRESS OF ABNORMAL-END APPENDAGE
DEB PREFIX TABLE			
-16	(-10)	4 DEBPREFX	DEB PREFIX TABLE
-16	(-10)	1 DEBWKARA	I/O SUPPORT WORK AREA
-15	(-F)	7 DEBDSCBA	DSCB ADDRESS (BBCCHHR) USED BY I/O SUPPORT
-8	(-8)	4 DEBDCBMK	DCB MODIFICATION MASK USED BY I/O SUPPORT
-4	(-4)	1 DEBLNGTH	LENGTH OF DEB IN DOUBLE WORDS
-3	(-3)	1 DEBAMTYP	ACCESS METHOD TYPE
-2	(-2)	2 DEBTBLOF	OFFSET IN THE DEB TABLE TO THE ENTRY FOR THIS DEB
DEB BASIC SECTION			
0	(0)	4 DEBTCBAD	ADDRESS OF TCB OWNING THIS DEB
0	(0)	1 DEBNMSUB	NO. OF SUBROUTINES LOADED BY OPEN EXECUTOR ROUTINES
1	(1)	3 DEBTCBB	SAME AS DEBTCBAD ABOVE
4	(4)	4 DEBDEBAD	ADDRESS OF THE NEXT DEB IN CHAIN OFF TCB
4	(4)	1 DEBAMLNG	NO. OF BYTES IN THE ACCESS METHOD DEPENDENT SECTION. FOR BDAM THIS FIELD CONTAINS THE LENGTH EXPRESSED IN NUMBER OF WORDS
5	(5)	3 DEBDEBB	SAME AS DEBDEBAD ABOVE
8	(8)	4 DEBIRBAD	IRB STORAGE ADDRESS USED FOR APPENDAGE EXITS
8	(8)	1 DEBOFLGS	DATA SET STATUS FLAGS
XX..	....	DEBDISP	DATA SET DISPOSITION FLAGS
01..	....	DEBDESOLD	OLD DATA SET
10..	....	DEBDSMOD	MOD DATA SET
11..	....	DEBDSNEW	NEW DATA SET
..1.	....	DEBEOF	DATA SET AT EOF (TAPE) OR LAST VOLUME (DASD)
...1	....	DEBRLSE	DISK: RELEASE UNUSED EXTERNAL STORAGE TAPE: EMULATOR TAPE WITH 2ND GENERATION FORMAT
....	1..	DEBDCB	DCB MODIFICATION
....	.1..	DEBSPLIT	DISK: SPLIT CYLINDER TAPE: 7 TRACK EMULATOR TAPE WITH POSSIBLE MIXED PARITY RECORDS
....	..1.	DEBLABEL	NONSTANDARD LABELS
....	...1	DEBRERR	FOR MAGNETIC TAPE- USE REDUCED ERROR RECOVERY PROCEDURE <i>BAM- CONCATENATION PRESENT</i>
9	(9)	3 DEBIRBB	SAME AS DEBIRBAD ABOVE
12	(C)	1 DEBOPATB	FLAGS INDICATING BOTH THE METHOD OF I/O PROCESSING AND THE DISPOSITION THAT IS TO BE PERFORMED WHEN AN EOVS CONDITION OCCURS
1...	....	DEBABEND	SET BY ABEND INDICATING A SYSABEND OR SYSUDUMP DATA SET
.1..	....	DEBZERO	ALWAYS ZERO
..XX	....	DEBPOSIT	DATA SET POSITIONING FLAGS
..01	....	DEBRERED	REREAD
..11	....	DEBLEAVE	LEAVE
....	XXXX	DEBACCS	TYPE OF I/O ACCESSING BEING DONE
0000	....	DEBINPUT	INPUT
0001	....	DEBRDBCK	READBACK
0011	....	DEBINOUT	INOUT

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0100	....	DEBUPDAT	UPDAT
0111	....	DEBOUTIN	OUTIN
1111	....	DEBOUTPT	OUTPUT
13	(D) 1	DEBQSCNT	PURGE (SVC 16) - QUIESCE COUNT. NO. OF DEVICES EXECUTING USER'S CHANNEL PROGRAMS, AS SHOWN BY BITS 5 AND 6 OF UCBFL1 FIELDS
14	(E) 1	DEBFLGS1	FLAG FIELD
	1... ....	DEBPWCKD	PASSWORD WAS SUPPLIED DURING OPEN. EOVS WILL NOT ASK FOR A PASSWORD FOR EACH ADDITIONAL VOLUME OF A MULTIVOLUME DATA SET.
	.1.. ....	DEBEOFDF	SET BY EOVS TO INFORM CLOSE THAT AN END-OF-FILE HAS BEEN ENCOUNTERED AND, THEREFORE, DEFERRED USER LABEL PROCESSING IS ALLOWED.
	..1. ....	DEBRVS01	RESERVED
	...1 ....	DEBRVS02	RESERVED
	.... 1...	DEBCINDI	DCB ASSOCIATED WITH THIS DEB IS BEING PROCESSED BY THE COMPATIBILITY INTERFACE ROUTINES
	.... .1..	DEBF1CEV	SET TO ZERO BY CLOSE, SET TO ONE BY EOVS, TESTED BY CLOSE TO DETERMINE IF EOVS HAD BEEN ENTERED DURING CLOSE PROCESSING
	.... ..1.	DEBRVS03	RESERVED <b>MVS APF BIT</b>
	.... ...1	DEBRVS04	RESERVED
15	(F) 1	DEBRVS05	RESERVED
16	(10) 4	DEBUSRPG	ADDRESS OF FIRST IOB IN THE USER PURGE CHAIN
16	(10) 1	DEBNMEXT	NUMBER OF EXTENTS SPECIFIED IN DSCBS
17	(11) 3	DEBUSRPB	SEE DEBUSRPG ABOVE
20	(14) 4	DEBECBAD	ADDRESS OF A PARAMETER LIST USED TO LOCATE THE PURGE ECB FOR AN SVC PURGE REQUEST
20	(14) 1	DEBPRIOR	PRIORITY OF THE TASK OWNING DEB
21	(15) 3	DEBECBB	SAME AS DEBECBAD ABOVE
24	(18) 4	DEBDCBAD	ADDRESS OF DCB ASSOCIATED WITH THIS DEB
24	(18) 1	DEBPROTG	TASK PROTECT KEY IN HIGH ORDER 4 BITS
24	(18) 1	DEBDEBID	A HEX F IN LOW ORDER 4 BITS IDENTIFYING THIS BLOCK AS A DEB
25	(19) 3	DEBDCBB	SAME AS DEBDCBAD ABOVE
28	(1C) 4	DEBAPPAD	ADDRESS OF THE I/O APPENDAGE VECTOR TABLE
28	(1C) 1	DEBXSCL	EXTENT SCALE- 4 FOR DIRECT ACCESS DEVICE AND 3525 UNIT RECORD DEVICE WITH DEVICE ASSOCIATED DATA SET SUPPORT AND 2 FOR NONDIRECT ACCESS DEVICE AND COMMUNICATION DEVICE. THIS FIELD IS USED TO DETERMINE THE SIZE OF THE DEVICE DEPENDENT SECTION
29	(1D) 3	DEBAPPB	SAME AS DEBAPPAD ABOVE
			UNIT RECORD, MAGNETIC TAPE, TELECOMMUNICATIONS DEVICES SECTION ***NOTE - FOR TELECOMMUNICATIONS DEVICES, THE FOLLOWING FIELDS ARE REPEATED FOR EACH LINE ASSIGNED
32	(20) 4	DEBSUCBA	ADDRESS OF A UCB ASSOCIATED WITH A GIVEN DATA SET
32	(20) 1	DEBSDVM	DEVICE MODIFIER - - MAGNETIC TAPE -- SET MODE OP CODE - UNIT RECORD -- NOT USED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
33	(21)	3 DEBSUCBB	SAME AS DEBSUCBA
			THE FOLLOWING FIELDS ARE PRESENT ONLY FOR THE 3525 UNDER ASSOCIATED DATA SET SUPPORT
36	(24)	4 DEBRDCB	ADDRESS OF DCB FOR THE READ ASSOCIATED DATA SET
36	(24)	1 DEBRV06	RESERVED
37	(25)	3 DEBRDCBA	SAME AS DEBRDCB ABOVE
40	(28)	4 DEBPDCB	ADDRESS OF DCB FOR THE PUNCH ASSOCIATED DATA SET
40	(28)	1 DEBRV07	RESERVED
41	(29)	3 DEBPDCBA	SAME AS DEBPDCB ABOVE
44	(2C)	4 DEBWDCB	ADDRESS OF DCB FOR THE PRINT ASSOCIATED DATA SET
44	(2C)	1 DEBRV08	RESERVED
45	(2D)	3 DEBWDCBA	SAME AS DEBWDCB ABOVE

DEB ISAM DEPENDENT SECTION

32	(20)	4 DEBFIEAD	ADDRESS OF FIRST INDEX EXTENT
32	(20)	1 DEBNIEE	NUMBER OF EXTENTS OF INDEPENDENT INDEX AREA
33	(21)	3 DEBFIEB	SAME AS DEBFIEAD ABOVE
36	(24)	4 DEBFPEAD	ADDRESS OF THE FIRST PRIME DATA AREA
36	(24)	1 DEBNPEE	NUMBER OF EXTENTS OF PRIME DATA AREA
37	(25)	3 DEBFPEB	SAME AS DEBFPEAD ABOVE
40	(28)	4 DEBFOEAD	ADDRESS OF THE FIRST OVERFLOW EXTENT
40	(28)	1 DEBNOEE	NUMBER OF EXTENTS OF INDEPENDENT OVERFLOW AREA
41	(29)	3 DEBFOEB	SAME AS DEBFOEAD ABOVE
44	(2C)	4 DEBEXPT	ADDRESS OF ISAM DEB EXTENSION
44	(2C)	1 DEBRPSID	RPS DEVICE INDICATORS
	1...	.... DEBRPSP	PRIME DATA AREA IS ON RPS DEVICE
	.1..	.... DEBRPSI	INDEPENDENT INDEX AREA IS ON RPS DEVICE
	..1.	.... DEBRPSO	INDEPENDENT OVERFLOW AREA IS ON RPS DEVICE
	...1	.... DEBRPSAP	RPS SIO APPENDAGE HAS BEEN LOADED
	....	1... DEBRV09	RESERVED
	....	.1.. DEBRV10	RESERVED
	....	..1. DEBRV11	RESERVED
	....	...1 DEBRV12	RESERVED
45	(2D)	3 DEBEXPTA	SAME AS DEBEXPT ABOVE

DIRECT-ACCESS STORAGE DEVICE SECTION NOTE - THE LOCATION OF THIS SECTION IS DEPENDENT UPON THE ACCESS METHOD USED--IF ISAM, THEN IT FOLLOWS THE ISAM SECTION--IF NOT ISAM THEN IT FOLLOWS THE BASIC SECTION

+0	(0)	4 DEBUCBAD	ADDR OF UCB ASSOCIATED WITH THIS DATA
+0	(0)	1 DEBDVMOD	DEVICE MODIFIER: FILE MASK
+1	(1)	3 DEBUCBA	SAME AS DEBUCBAD ABOVE
+4	(4)	2 DEBBINUM	BIN NUMBER

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+6	(6)	2 DEBSTRCC	CYLINDER ADDRESS FOR THE START OF AN EXTENT LIMIT
+8	(8)	2 DEBSTRHH	READ/WRITE TRACK ADDRESS FOR THE START OF AN EXTENT LIMIT
+10	(A)	2 DEBENDCC	CYLINDER ADDRESS FOR THE END OF AN EXTENT LIMIT
+12	(C)	2 DEBENDHH	READ / WRITE TRACK ADDRESS FOR THE END OF AN EXTENT LIMIT
+14	(E)	2 DEBNMTRK	NUMBER OF TRACKS ALLOCATED TO A GIVEN EXTENT

EXCP ACCESS METHOD, BSAM AND QSAM DEPENDENT SECTION

+0	(0)	2 DEBVOLSQ	VOLUME SEQUENCE NUMBER FOR MULTIVOLUME SEQUENTIAL DATA SETS
+2	(2)	2 DEBVOLNM	TOTAL NUMBER OF VOLUMES IN A MULTIVOLUME SEQUENTIAL DATA SET.
+4	(4)	8 DEBDSNM	MEMBER NAME - - APPEARS ONLY WHEN AN OUTPUT DATA SET HAS BEEN OPENED FOR A MEMBER NAME AND THE DSCB SPECIFIES A PARTITIONED DATA SET.
+4	(4)	4 DEBUTSAA	ADDRESS OF THE USER TOTALLING SAVE AREA
+4	(4)	1 DEBRV13	RESERVED
+5	(5)	3 DEBUTSAB	SAME AS DEBUTSAA
+8	(8)	4 DEBRV14	RESERVED

BPAM DEPENDENT SECTION

+0	(0)	1 DEBEXTNM	FOR A PARTITIONED DATA SET OPENED FOR INPUT, EACH ONE BYTE FIELD CONTAINS THE EXTENT NUMBER OF THE FIRST EXTENT ENTRY FOR EACH DATA SET EXCEPT THE FIRST, IF TWO OR MORE DATA SETS ARE CONCATENATED. THE NUMBER OF BYTES IN THE FIELD IS EQUAL TO ONE LESS THAN THE NUMBER OF DATA SETS CONCATENATED.
+0	(0)	8 DEBDSNAM	FOR A PARTITIONED DATA SET OPENED FOR OUTPUT TO A MEMBER NAME, THAT MEMBER NAME.

BDAM DEPENDENT SECTION - FOR FIXED LENGTH RECORDS WITH THE OPTION OF RELATIVE BLOCK ADDRESSING (BUT NOT TRACK OVERFLOW).

+0	(0)	4 DEBDBLK	ONE FOUR BYTE FIELD FOR EACH EXTENT DESCRIBED IN THE DEVICE DEPENDENT SECTION.
+0	(0)	1 DEBDBPT	NUMBER OF BLOCKS PER TRACK
+1	(1)	3 DEBDBPE	NUMBER OF BLOCKS PER EXTENT

BDAM DEPENDENT SECTION - FOR FIXED LENGTH RECORDS WITH THE OPTION OF RELATIVE BLOCK ADDRESSING AND TRACK OVERFLOW.

+0	(0)	4 DEBDTPP	NUMBER OF TRACKS PER PERIOD
+4	(4)	4 DEBDBPP	NUMBER OF BLOCKS PER PERIOD THE FOLLOWING FIELD OCCURS ONCE FOR EACH EXTENT.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+8	(8)	4 DEBDBPEF	NUMBER OF BLOCKS PER EXTENT
BTAM DEPENDENT SECTION			
THIS SEGMENT IS ALWAYS PRESENT WITH BTAM - IT IS USED WHEN A BUFFER POOL OR DYNAMIC BUFFERING IS USED; ELSE THE FIELDS ARE ZERO.			
+0	(0)	4 DEBTBFRA	ADDRESS OF THE BUFFER ROUTINE
+0	(0)	1 DEBRV15	RESERVED
+1	(1)	3 DEBTBFRB	SAME AS DEBTBFRA, ABOVE
THE FOLLOWING FIELD IS REPEATED FOR EACH CCW ON THE CHANNEL PROGRAM QUEUE			
+4	(4)	4 DEBTCCWA	ADDRESS OF THE FIRST CCW ON THE QUEUE
+4	(4)	1 DEBRV16	RESERVED
+5	(5)	3 DEBTCCWB	SAME AS DEBTCCWA, ABOVE
GAM DEPENDENT SECTION			
+0	(0)	4 DEBFUCBA	POINTER TO FIRST UCB
+0	(0)	1 DEBRV17	RESERVED
+1	(1)	3 DEBFUCBB	ADDRESS OF FIRST UCB
+4	(4)	4 DEBLUCBA	POINTER TO LAST UCB
+4	(4)	1 DEBRV18	RESERVED
+5	(5)	3 DEBLUCBB	ADDRESS OF LAST UCB
ISAM LOAD MODE EXTENSION POINTED TO BY DEBEXPT			
+0	(0)	4 DEBPUT	ADDRESS OF PUT MODULE
ISAM SCAN MODE EXTENSION POINTED TO BY DEBEXPT			
+0	(0)	4 DEBGET	ADDRESS OF GET OR PUT MODULE - THIS FIELD IS ALSO CALLED DEBPUT
+4	(4)	4 DEBWKPT4	SAME AS DCBWKPT4
+8	(8)	4 DEBWKPT5	SAME AS DCBWKPT5
+12	(C)	4 DEBCREAD	ADDRESS OF CHANNEL-END APPENDAGE FOR READ
+16	(10)	4 DEBCSETL	ADDRESS OF CHANNEL-END APPENDAGE FOR SETL
+20	(14)	4 DEBCWRIT	ADDRESS OF CHANNEL-END APPENDAGE FOR WRITE
+24	(18)	4 DEBCCHK	ADDRESS OF CHANNEL-END APPENDAGE FOR WRITE VALIDITY CHECK
+28	(1C)	4 DEBCREW	ADDRESS OF CHANNEL-END APPENDAGE FOR RE-WRITE
+32	(20)	4 DEBCRECK	ADDRESS OF CHANNEL-END APPENDAGE FOR RE-CHECK
+36	(24)	4 DEBAREAD	ADDRESS OF ABNORMAL-END APPENDAGE FOR READ
+40	(28)	4 DEBASET	ADDRESS OF ABNORMAL-END APPENDAGE FOR SETL
+44	(2C)	4 DEBAWRIT	ADDRESS OF ABNORMAL-END APPENDAGE FOR WRITE
+48	(30)	4 DEBACHK	ADDRESS OF ABNORMAL-END APPENDAGE FOR CHECK
+52	(34)	4 DEBAREWT	ADDRESS OF ABNORMAL-END APPENDAGE FOR RE-WRITE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+56	(38)	DEBARECK	ADDRESS OF ABNORMAL-END APPENDAGE FOR RE-CHECK
+60	(3C)	DEBRPSST	ADDRESS OF RPS SIO MODULE
			BISAM MODE EXTENSION POINTED TO BY DEBEXPT
+0	(0)	DEBDISAD	ADDRESS OF PRIVILEGED MODULE ENTERED WHEN A BISAM MACRO INSTRUCTION IS EXECUTED
+4	(4)		DEBWKPT4 - SAME AS DCBWKPT4
+8	(8)		DEBWKPT5 - SAME AS DCBWKPT5
+12	(C)	DEBFREED	ADDRESS OF DYNAMIC BUFFERING MODULE
+16	(10)	DEBRPSIO	ADDRESS OF A DEVICE DEPENDENT SECONDARY SIO APPENDAGE
+20	(14)	DEBSIOA2	ADDRESS OF SIO APPENDAGE DISPLACED BY PGFX APPENDAGE
			SUBROUTINE NAME SECTION
			FOLLOWS THE ACCESS METHOD DEPENDENT SECTION, OR THE DEVICE DEPENDENT SECTION IF THERE IS NO ACCESS METHOD SECTION.
+0	(0)	DEBSUBID	THE LAST TWO BYTES OF THE 8-BYTE MODULE NAME FOR EACH ACCESS METHOD SUBROUTINE, APPENDAGE SUBROUTINE, OR IRB ROUTINE LOADED BY OPEN.

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	+4 (4)	DEBFIEAD	+32 (20)	DEBRV09	+44 X'08'
	+8 (8)	DEBFIEB	+33 (21)	DEBRV10	+44 X'04'
DEBABEND	+12 X'80'	DEBFLGS1	+14 (E)	DEBRV11	+44 X'02'
DEBACCS	+12 X'0F'	DEBFOEAD	+40 (28)	DEBRV12	+44 X'01'
DEBACHK	+48 (30)	DEBFOEB	+41 (29)	DEBRV13	+4 (4)
DEBAMLNG	+4 (4)	DEBFPEAD	+36 (24)	DEBRV14	+8 (8)
DEBAMTYP	33 (21)	DEBFPEB	+37 (25)	DEBRV15	+0 (0)
DEBAPPAD	+28 (1C)	DEBFREED	+12 (C)	DEBRV16	+4 (4)
DEBAPPB	+29 (1D)	DEBFUCBA	+0 (0)	DEBRV17	+0 (0)
DEBAREAD	+36 (24)	DEBFUCBB	+1 (1)	DEBRV18	+4 (4)
DEBARECK	+56 (38)	DEBF1CEV	+14 X'04'	DEBRV19	0 X'80'
DEBAREWT	+52 (34)	DEBGET	+0 (0)	DEBRV20	0 X'40'
DEBASET1	+40 (28)	DEBIOVR	4 X'20'	DEBRV21	0 X'20'
DEBAVT	0 (0)	DEBIRBAD	+8 (8)	DEBRV22	0 X'10'
DEBAWRIT	+44 (2C)	DEBIRBB	+9 (9)	DEBRV23	4 X'10'
DEBBINUM	+4 (4)	DEBLABEL	+8 X'02'	DEBRV24	8 X'80'
DEBCCHK	+24 (18)	DEBLNGTH	32 (20)	DEBRV25	8 X'40'
DEBCEA	12 (C)	DEBLUCBA	+4 (4)	DEBRV26	8 X'20'
DEBCEAB	12 (C)	DEBLUCBB	+5 (5)	DEBRV27	8 X'10'
DEBCEAD	13 (D)	DEBNIEE	+32 (20)	DEBRV28	12 X'80'
DEBCENP	12 X'0F'	DEBNMEXT	+16 (10)	DEBRV29	12 X'40'
DEBCINDI	+14 X'08'	DEBNMSUB	+0 (0)	DEBRV30	12 X'20'
DEBCREAD	+12 (C)	DEBNMTRK	+14 (E)	DEBRV31	12 X'10'
DEBCRECK	+32 (20)	DEBNOEE	+40 (28)	DEBRV32	16 X'80'
DEBCREW1	+28 (1C)	DEBNPEE	+36 (24)	DEBRV33	16 X'40'
DEBCSET1	+16 (10)	DEBOFLGS	+8 (8)	DEBRV34	16 X'20'
DEBCWRIT	+20 (14)	DEBOPATB	+12 (C)	DEBRV35	16 X'10'
DEDBLK	+0 (0)	DEBPCIA	8 (8)	DEBSDVM	+32 (20)
DEDBBPE	+1 (1)	DEBPC1AB	8 (8)	DEBSIOA	4 (4)
DEDBBPEF	+8 (8)	DEBPC1AD	9 (9)	DEBSIOAB	4 (4)
DEDBBPP	+4 (4)	DEBPC1NP	8 X'0F'	DEBSIOAD	5 (5)
DEDBBPT	+0 (0)	DEBPDCB	+40 (28)	DEBSIOA2	+20 (14)
DEBDCB	+8 X'08'	DEBPDCBA	+41 (29)	DEBSIONP	4 X'0F'
DEBDCBAD	+24 (18)	DEBPGFX	4 X'80'	DEBSIOX	4 X'40'
DEBDCBB	+25 (19)	DEBPOSIT	+12 X'30'	DEBSPLIT	+8 X'04'
DEBDCBMK	28 (1C)	DEBPREFX	20 (14)	DEBSTRCC	+6 (6)
DEBDEBAD	+4 (4)	DEBPRIOR	+20 (14)	DEBSTRHH	+8 (8)
DEBDEBB	+5 (5)	DEBPROTG	+24 (18)	DEBSUBID	+0 (0)
DEBDEBID	+24 (18)	DEBPUT	+0 (0)	DEBSUCBA	+32 (20)
DEBDISAD	+0 (0)	DEBPWCKD	+14 X'80'	DEBSUCBB	+33 (21)
DEBDISP	+8 X'CO'	DEBQSCNT	+13 (D)	DEBTBFRA	+0 (0)
DEBDSCBA	21 (15)	DEBRDCB	+36 (24)	DEBTBFRB	+1 (1)
DEBDSNAM	+0 (0)	DEBRDCBA	+37 (25)	DEBTBLOF	34 (22)
DEBDSNM	+4 (4)	DEBRERR	+8 X'01'	DEBTCBAD	+0 (0)
DEBDTPP	+0 (0)	DEBR1SE	+8 X'10'	DEBTCBB	+1 (1)
DEBDVMOD	+0 (0)	DEBRPSAP	+44 X'10'	DEBTCCWA	+4 (4)
DEBECBAD	+20 (14)	DEBRPSI	+44 X'40'	DEBTCCWB	+5 (5)
DEBECBB	+21 (15)	DEBRPSID	+44 (2C)	DEBUCBA	+1 (1)
DEBENDCC	+10 (A)	DEBRPSIO	+16 (10)	DEBUCBAD	+0 (0)
DEBENDHH	+12 (C)	DEBRPSO	+44 X'20'	DEBUSRPB	+17 (11)
DEBEOEA	0 (0)	DEBRPSP	+44 X'80'	DEBUSRPG	+16 (10)
DEBEOEAB	0 (0)	DEBRPSST	+60 (3C)	DEBUTSAA	+4 (4)
DEBEOEAD	1 (1)	DEBRV01	+14 X'20'	DEBUTSAB	+5 (5)
DEBEOENP	0 X'0F'	DEBRV02	+14 X'10'	DEBVOLNM	+2 (2)
DEBEOF	+8 X'20'	DEBRV03	+14 X'02'	DEBVOLSQ	+0 (0)
DEBEOFDF	+14 X'40'	DEBRV04	+14 X'01'	DEBWDCB	+44 (2C)
DEBEXPT	+44 (2C)	DEBRV05	+15 (F)	DEBWDCBA	+45 (2D)
DEBEXPTA	+45 (2D)	DEBRV06	+36 (24)	DEBWKARA	20 (14)
DEBEXSCL	+28 (1C)	DEBRV07	+40 (28)	DEBWKPT4	+4 (4)
DEBEXTNM	+0 (0)	DEBRV08	+44 (2C)	DEBWKPT5	+8 (8)

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
DEBXCEA	16 (10)				
DEBXCEAB	16 (10)				
DEBXCEAD	17 (11)				
DEBXCENP	16 X'0F'				
DEBZERO	+12 X'40'				
			END OF DEB		



## Data Extent Block -- TCAM

The data extent block (DEB) for TCAM is a fixed length block with a 36-byte prefix. The DEB describes the extents of the data set associated with it. The DEB contains the addresses of the DCB, UCB, and TCB. It also contains the number of extents associated with the data set.

The address of the DEBTCBAD field is in the DCBDEBAD field of the DCB. The address of the beginning of the DEB is DCBDEBAD - 36 (- 24).

Storage is allocated and fixed for the DEB and it is initialized when the data set is opened.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 DEBEOEA	ADDRESS OF END-OF-EXTENT APPENDAGE
4	(4)	4 DEBSIOA	ADDRESS OF START I/O APPENDAGE
8	(8)	4 DEBPCIA	ADDRESS OF PCI APPENDAGE
12	(C)	4 DEBCEA	ADDRESS OF CHANNEL END APPENDAGE
16	(10)	4 DEBXCEA	ADDRESS OF ABNORMAL END APPENDAGE
DEB PREFIX			
-16	(-10)	4 DEBWKARA	I/O SUPPORT WORK AREA
-15	(-F)	7 DEBDSCBA	ADDRESS OF DSCB
-8	(-8)	4 DEBDCBMK	DCB MODIFICATION MASK
-4	(-4)	4 DEBLNGTH	LENGTH OF THE DEB IN DOUBLE WORDS
DEB PROPER			
0	(0)	1 DEBNMSUB	NUMBER OF OPEN SUBROUTINES
0	(0)	4 DEBTCBAD	ADDRESS OF THE TCB
4	(4)	1 DEBAMLNG	LENGTH ACCESS METHOD SECTION
4	(4)	4 DEBDEBAD	ADDRESS OF NEXT DEB
8	(8)	1 DEBOFLGS	DATA SET FLAGS
8	(8)	4 DEBIRBAD	ADDRESS OF THE IRB
12	(C)	1 DEBOPATB	TYPE OF I/O
12	(C)	4 DEBSYSPG	ADDRESS OF FIRST IOB IN SYSTEM PURGE CHAIN
16	(10)	1 DEBNMEXT	NUMBER OF EXTENTS
16	(10)	4 DEBUSRPG	ADDRESS OF FIRST IOB IN THE USER PURGE CHAIN
20	(14)	1 DEBPRIOR	ZERO
20	(14)	4 DEBECBAD	ADDRESS OF PARAMETER LIST TO FIND PURGE ECB
24	(18)	1 DEBPROTG	PROTECTION KEY AND DEB ID
24	(18)	4 DEBDCBAD	ADDRESS OF DCB
28	(1C)	1 DEBXSCL	EXTENT SCALE
28	(1C)	4 DEBAPPAD	ADDRESS OF I/O APPENDAGE VECTOR TABLE
32	(20)	1 DEBDVMOD	DEVICE MODIFIER
32	(20)	4 DEBUCBAD	ADDRESS OF UCB

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
DEBAMLNG	4 (4)				
DEBAPPAD	28 (1C)				
DEBCEA	12 (C)				
DEBDCBAD	24 (18)				
DEBDCBMK	-8 (-8)				
DEBDEBAD	4 (4)				
DEBDSCBA	-15 (-F)				
DEBDVMOD	32 (20)				
DEBECBAD	20 (14)				
DEBEXSCL	28 (1C)				
DEBIRBAD	8 (8)				
DEBLNGTH	-16 (-10)				
DEBNMEXT	16 (10)				
DEBNMSUB	0 (0)				
DEBOFLGS	8 (8)				
DEBOPATB	12 (C)				
DEBPCIA	8 (8)				
DEBPRIOR	20 (14)				
DEBPROTG	24 (18)				
DEBSIOA	4 (4)				
DEBSYSPG	12 (C)				
DEBTCBAD	0 (0)				
DEBUCBAD	32 (20)				
DEBUSRPG	16 (10)				
DEBWKARA	-16 (-10)				
DEBXCEA	16 (10)				

END OF DEB - TCAM



## Data Event Control Blocks

Data event control blocks (DECBs) contain information about an input or output operation requested by a READ or WRITE macro instruction.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
DATA EVENT CONTROL BLOCK FOR BSAM			
0	(0)	4 DECSDECB	EVENT CONTROL BLOCK
4	(4)	4 DECBPTR	FOR IBM 1419 MAGNETIC CHARACTER READER AND IBM 1275 OPTICAL READER SORTER, A POINTER TO NEXT DECB TO BE TESTED FOR COMPLETION BY THE CHECK MACRO INSTRUCTION
4	(4)	2 DECTYPE	TYPE OF I/O REQUEST
4	(4)	1 DECTYPE1	TYPE OF LENGTH OPERAND
	1...	.... DECLNS	S CODED FOR LENGTH
	.1..	.... DECRSV01	RESERVED
	..1.	.... DECRSV02	RESERVED
	...1	.... DECRSV03	RESERVED
	....	1... DECRSV04	RESERVED
	....	.1.. DECRSV05	RESERVED
	....	..1. DECRSV06	RESERVED
	....	...1 DECRSV07	RESERVED
5	(5)	1 DECTYPE2	TYPE OF OPERATION
	1...	.... DECRDSF	READ SF
	.1..	.... DECRDSB	READ SB
	..1.	.... DECWRSF	WRITE SF
	...1	.... DECWRS	WRITE SD
	....	1... DECRSV08	RESERVED
	....	.1.. DECWRSZ	WRITE SZ
	....	..1. DECRSV09	RESERVED
	....	...1 DECWRSFR	WRITE SFR (BIT 2 IS ALSO ON)
6	(6)	2 DECLNGTH	LENGTH OF KEY AND DATA
8	(8)	4 DECDCBAD	ADDRESS OF DCB TO WHICH THIS I/O REQUEST IS RELATED
12	(C)	4 DECAREA	ADDRESS OF KEY AND DATA, OR FOR 1287 OR 1288 OPTICAL READERS, ADDRESS OF A USER-SPECIFIED CHANNEL PROGRAM
16	(10)	4 DECIOBPT	ADDRESS OF IOB
20	(14)	4 DECNEXT	SAME AS DECNEXTA BELOW
20	(14)	1 DECRSV10	RESERVED
21	(15)	3 DECNEXTA	ADDRESS OF NEXT ADDRESS FEEDBACK FIELD. PRESENT ONLY IF R IS CODED IN WRITE MACRO

DATA EVENT CONTROL BLOCK FOR BISAM

0	(0)	4 DECBECB	EVENT CONTROL BLOCK
0	(0)	4 DECBRB	SAME AS DECBRBA BELOW
0	(0)	1 DECBECBF	FLAG FIELD
	1...	.... DECBWAIT	AWAITING COMPLETION OF EVENT
	.1..	.... DECBPOST	EVENT HAS COMPLETED
	..1.	.... DECRSV11	RESERVED
	...1	.... DECRSV12	RESERVED
	....	1... DECRSV13	RESERVED
	....	.1.. DECRSV14	RESERVED
	....	..1. DECRSV15	RESERVED
	....	...1 DECRSV16	RESERVED
1	(1)	3 DECBRBA	ADDRESS OF RB FOR PROGRAM AWAITING EVENT (BEFORE EVENT COMPLETION) OR RESERVED (AFTER EVENT COMPLETION)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
4	(4)	1 DECBTYP1	OPTION BYTE
	1...	.... DECRSV17	RESERVED
	.1..	.... DECRSV18	RESERVED
	..1.	.... DECRSV19	RESERVED
	...1	.... DECRSV20	RESERVED
	....	1... DECRSV21	RESERVED
	....	.1.. DECRSV22	RESERVED
	....	..1. DECBLNS	LENGTH CODED AS 'S'
	....	...1 DECBARS	AREA CODED AS 'S'
5	(5)	1 DECBTYP2	TYPE OF I/O REQUEST
	1...	.... DECBRDK	READ K
	.1..	.... DECRSV23	RESERVED
	..1.	.... DECBRDKU	READ KU
	...1	.... DECRSV24	RESERVED
	....	1... DECBWRK	WRITE K
	....	.1.. DECBWRKN	WRITE KN
	....	..1. DECRSV25	RESERVED
	....	...1 DECRSV26	RESERVED
6	(6)	2 DECBLGTH	NUMBER OF BYTES READ OR WRITTEN
8	(8)	4 DECBDCBA	ADDRESS OF DATA CONTROL BLOCK
12	(C)	4 DECBAREA	ADDRESS OF AREA IN STORAGE FOR RECORD
16	(10)	4 DECBLOGR	ADDRESS OF LOGICAL RECORD
20	(14)	4 DECBKEY	ADDRESS OF KEY PORTION OF RECORD
24	(18)	1 DECBEXC1	EXCEPTIONAL CONDITION CODE BYTE 1
	1...	.... DECEXRNF	RECORD NOT FOUND
	.1..	.... DECEXRLC	RECORD LENGTH CHECK
	..1.	.... DECEXNSP	SPACE NOT FOUND IN WHICH TO ADD A RECORD
	...1	.... DECEXINV	INVALID REQUEST
	....	1... DECEXERR	UNCORRECTABLE I/O ERROR
	....	.1.. DECEXUBK	UNREACHABLE BLOCK
	....	..1. DECEXOFL	OVERFLOW RECORD
	....	...1 DECEXDUP	DUPLICATE RECORD PRESENTED FOR INCLUSION IN DATA SET
25	(19)	1 DECBEXC2	EXCEPTIONAL CONDITION CODE BYTE 2
	1...	.... DECRSV27	RESERVED
	.1..	.... DECRSV28	RESERVED
	..1.	.... DECRSV29	RESERVED
	...1	.... DECRSV30	RESERVED
	....	1... DECRSV31	RESERVED
	....	.1.. DECRSV32	RESERVED
	....	..1. DECEXASR	EXECUTION OF LAST CHANNEL PROGRAM WAS INSTITUTED BY AN ASYNCHRONOUS ROUTINE
	....	...1 DECEXRKU	PREVIOUS MACRO INSTRUCTION WAS READ KU

DATA EVENT CONTROL BLOCK FOR BDAM

0	(0)	1		COMPLETION CODE BYTE 1
1	(1)	1 DECCC2		COMPLETION CODE BYTE 2
	1...	.... DECCCRNF		RECORD NOT FOUND
	.1..	.... DECCCRLC		RECORD LENGTH CHECK
	..1.	.... DECCCNSP		SPACE NOT FOUND
	...1	.... DECCCINV		INVALID REQUEST
	....	1... DECCCERR		UNCORRECTABLE I/O ERROR
	....	.1.. DECCC EOD		END OF DATA
	....	..1. DECCCUER		UNCORRECTABLE ERROR OTHER THAN I/O ERROR
	....	...1 DECCCRES		A READ WITH EXCLUSIVE CONTROL WAS NOT PRECEDED BY A WRITE WITH EXCLUSIVE CONTROL

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
2	(2)	1 DECCC3	COMPLETION CODE BYTE 3
	1...	.... DECRSV33	RESERVED
	.1..	.... DECCCWRI	A WRITE MACRO INSTRUCTION WAS ADDRESSED TO AN INPUT DATA SET
	..1.	.... DECCCEXS	AN EXTENDED SEARCH WAS SPECIFIED WITH DCBLIMCT FIELD SET TO ZERO
	...1	.... DECCCNBK	BLOCK REQUESTED IS NOT WITHIN DATA SET
	....	1... DECCCWDI	A WRITE-BY-IDENTIFICATION (DI) ADDRESSED RECORD ZERO
	....	.1.. DECCCSDK	A SEARCH-ON-KEY (DK) WAS SPECIFIED WITH DCBKEYLE FIELD SET TO ZERO OR WITHOUT AN ADDRESS FOR THE KEY
	....	..1. DECCCOPT	A MACRO INSTRUCTION USED AN OPTION NOT SET IN THE DCB
	....	...1 DECCCKFF	THE KEY FOR THE FIXED-LENGTH RECORD TO BE ADDED BEGINS WITH HEX FF
3	(3)	1 DECRSV34	RESERVED
4	(4)	1 DECTYPE1	FIRST BYTE OF DECTYPE
	1...	.... DECVERIFY	VERIFY
	.1..	.... DECOFLOW	OVERFLOW
	..1.	.... DECEXSRC	EXTENDED SEARCH
	...1	.... DECFBCK	FEEDBACK
	....	1... DECACTAD	ACTUAL ADDRESSING
	....	.1.. DECDYNBF	DYNAMIC BUFFERING
	....	..1. DECRDEX	READ EXCLUSIVE
	....	...1 DECRELBA	RELATIVE BLOCK ADDRESSING
5	(5)	1 DECTYPE2	SECOND BYTE OF DECTYPE
	1...	.... DECKEYS	S CODED FOR KEY ADDRESS
	.1..	.... DECBKLS	S CODED FOR BLOCK LENGTH
	..11	.... DECTYPRU	RU IS SUFFIXED TO THE TYPE, INDICATING THAT THE FEEDBACK ADDRESS POINTED TO BY DECNXADR CAN BE ADDRESS OF EITHER NEXT DATA RECORD OR NEXT CAPACITY RECORD, WHICHEVER OCCURS FIRST
	..01	.... DECTYPR	R IS SUFFIXED TO THE TYPE, INDICATING THAT THE FEEDBACK ADDRESS POINTED TO BY DECNXADR IS ADDRESS OF NEXT DATA RECORD (BIT 2 IS ZERO)
	....	1... DECOPRD	TYPE OF OPERATION - 0 IS WRITE, 1 IS READ
	....	.1.. DECSRKEY	TYPE OF SEARCH ARGUMENT - 0 IS ID, 1 IS KEY
	....	..1. DECWRADD	ADD OPTION OF WRITE OPERATION
	....	...1 DECRSV35	RESERVED
6	(6)	2 DECLNGTH	LENGTH OF DATA
8	(8)	4 DECDCBAD	ADDRESS OF DCB TO WHICH THIS I/O REQUEST IS RELATED
12	(C)	4 DECAREA	ADDRESS OF DATA
16	(10)	4 DECIOBPT	ADDRESS OF IOB
20	(14)	4 DECKYADR	ADDRESS OF KEY
24	(18)	4 DECRCPT	ADDRESS OF BLOCK REFERENCE FIELD
28	(1C)	4 DECNA	SAME AS DECNAA BELOW
28	(1C)	1 DECRSV36	RESERVED
29	(1D)	3 DECNAA	ADDRESS OF NEXT ADDRESS FEEDBACK FIELD. PRESENT ONLY IF R OR RU IS CODED IN READ MACRO.
DATA EVENT CONTROL BLOCK FOR BTAM			
0	(0)	4 DECSDECB	EVENT CONTROL BLOCK



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
4	(4)	1 DECTYPE1	FIRST BYTE OF DECTYPE
	1...	.... DECRDAPL	READ, USING AUTOPOLL
	.1..	.... DECRSV43	RESERVED
	..1.	.... DECRSV44	RESERVED
	...1	.... DECRSV45	RESERVED
	....	1... DECRSV46	RESERVED
	....	.1.. DECSTRME	'S' CODED FOR TERMINAL ENTRY
	....	..1. DECSAREA	'S' CODED FOR AREA
	....	...1 DECSLNTH	'S' CODED FOR LENGTH
5	(5)	1 DECTYPE2	OPERATION CODE
6	(6)	2 DECLNGTH	LENGTH OF BUFFER OR MESSAGE AREA
8	(8)	1 DECBUFCT	CONTAINS A RUNNING COUNT OF BUFFERS OBTAINED BY BTAM FOR CURRENT READ OPERATION. (DYNAMIC BUFFERING ONLY.) USE DIFFERS DURING BSC AND 2760 ON LINE TEST.
8	(8)	1 DECONLTT	FLAG BYTE FOR BSC AND 2760 ONLINE TEST
	1...	.... DECONLTS	IF ZERO, ONLINE TEST REQUESTED BY RFT MESSAGE (BSC). IF ONE, ONLINE TEST INITIATED BY ONLTST MACRO INSTRUCTION (BSC).
	.1..	.... DECRCVMS	IF ZERO, SENDING TEST MESSAGES (BSC). IF ONE, RECEIVING TEST MESSAGES (BSC) OR TYPE 11 ONLINE TEST FOR 2760 OPTICAL IMAGE UNIT.
	..1.	.... DECRSV47	RESERVED
	...1	.... DECRSV48	RESERVED
	....	1... DECRSV49	RESERVED
	....	.1.. DECRSV50	RESERVED
	....	..1. DECRSV51	RESERVED
	....	...1 DECRSV52	RESERVED
9	(9)	3 DECDCBAA	ADDRESS OF ASSOCIATED DCB
12	(C)	4 DECAREA	ADDRESS OF BUFFER OR MESSAGE AREA
16	(10)	1 DECSSENS0	SENSE INFORMATION
17	(11)	1 DECSSENS1	RESERVED
18	(12)	2 DECCOUNT	RESIDUAL COUNT FROM CSW FOR LAST CCW EXECUTED
20	(14)	4 DECENTRY	ADDRESS OF TERMINAL LIST
20	(14)	1 DECCMCOD	COMMAND FOR WHICH ERROR OCCURRED
21	(15)	3 DECENTRA	ADDRESS OF TERMINAL LIST
24	(18)	1 DECFLAGS	OPERATION STATUS
	11..	.... DECWACK	WACK WAS RECEIVED (BSC)
	1...	.... DECERRMS	ERROR STATUS MESSAGE WAS RECEIVED (BSC). BIT1 IS OFF.
	.1..	.... DECDIFAC	ACKNOWLEDGMENT OTHER THAN ACK-0 OR ACK-1 RECEIVED (BSC)
	..1.	.... DECALTAC	ACKNOWLEDGMENT ALTERNATION INCORRECT
	...1	.... DECBADID	FOR TWX 33/35 STATION AND BSC STATION, INCORRECT ID RECEIVED. FOR AUTOPOLL, INDEX BYTE RECEIVED DOES NOT MATCH AN ACTIVE ONE. FOR BSC NONSWITCHED POINT-TO-POINT LINE, CONTENTION OCCURRED. FOR WTTA, CONTENTION OCCURRED OR INCORRECT ID RECEIVED.
	....	1... DECNOBUF	FOR READ, DYNAMIC BUFFERING, NO BUFFER WAS AVAILABLE. (MESSAGE LOST)
	....	.1.. DECNEGRP	FOR OPENLST, POLLING, NEGATIVE RESPONSE TO POLLING RECEIVED. FOR WRAPLST, ALL ENTRIES ARE INACTIVE. FOR ADDRESSING, NEGATIVE RESPONSE TO ADDRESSING RECEIVED. FOR WTTA, LAST MESSAGE RECEIVED ENDED WITH EOT OR

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
.....	..1.	DECREVRS	TIME-OUT. FOR 2741, POWER IS OFF OR OTHER INTERVENTION REQUIRED CONDITION EXISTS. FOR WTTA, MESSAGE ENDED WITH WRU SIGNAL. FOR BSC STATIONS, REVERSE INTERRUPT (RVI) SEQUENCE WAS RECEIVED (SEE ALSO BIT1). FOR 2741, WRITE OPERATION WAS ENDED BY TERMINAL INTERRUPT.
.....	...1	DECSTXNQ	FOR WTTA, CONTENTION CONDITION WAS ENCOUNTERED. FOR BSC STATIONS, STX ENQ SEQUENCE WAS RECEIVED.
25	(19)	1 DECRLN	RELATIVE LINE NUMBER
26	(1A)	2 DECRESPN	FOR BSC OPERATIONS, RESPONSE FROM A TERMINAL TO ADDRESSING. FOR STOP-START OPERATIONS, BYTE 1 IS RESPONSE FROM A TERMINAL TO ADDRESSING AND BYTE 2 IS VERTICAL REDUNDANCY CHARACTER AND LONGITUDINAL REDUNDANCY CHARACTER (VRC/LRC) RESPONSE.
28	(1C)	1 DECTPCOD	TP OPERATION CODE
29	(1D)	1 DECERRST	I/O ERROR STATUS FLAGS
	1... ..	DECSIO3	SIO RESULTED IN A CONDITION CODE OF 3
	.1.. ..	DECUNDEF	UNDEFINED ERROR CONDITION
	..1. ....	DECERPER	AN ERROR CONDITION OCCURRED DURING AN I/O OPERATION INITIATED BY ERROR RECOVERY ROUTINE
	...1 ....	DECDIAGN	DIAGNOSTIC WRITE/READ OPERATION ENDED BECAUSE OF ERROR (2701 ONLY)
	.... 1...	DECDSABL	DISABLE COMMAND ISSUED TO SWITCHED LINE BY ERROR RECOVERY ROUTINE BECAUSE OF PERMANENT ERROR ON THAT LINE
	.... .1..	DECRSV53	RESERVED
	.... ..1.	DECRSV54	RESERVED
	.... ...1	DECRSV55	RESERVED
30	(1E)	2 DECCSWST	STATUS BITS FROM CSW FOR LAST CCW EXECUTED
32	(20)	4 DECADRPT	ADDRESS OF ADDRESSING LIST ENTRY USED IN PREVIOUS OPERATION
36	(24)	4 DECPOLPT	SAME AS DECPOLPA BELOW
36	(24)	1 DECNDXPL	FOR AUTOPOLL, INDEX TO CURRENT ENTRY IN POLLING LIST
37	(25)	3 DECPOLPA	FOR PROGRAMMED POLLING, ADDRESS OF CURRENT ENTRY IN POLLING LIST. FOR AUTOPOLL, ADDRESS OF POLLING LIST. FOR BSC ON-LINE TEST, ADDRESS OF TEXT DATA.
BSC EXTENSION FIELDS ARE PRESENT ONLY IF A SUBLIST IS CODED FOR THE AREA AND LENGTH OPERANDS OF THE READ OR WRITE MACRO INSTRUCTION THAT DEFINES THE DECB.			
40	(28)	2 DECRSV56	RESERVED
42	(2A)	2 DECWLNG	LENGTH, IN BYTES, OF DATA AREA IN LEADING-GRAPHICS AND CONVERSATIONAL TYPE OPERATIONS OR OF AREA CONTAINING TONE CHARACTERS IN READ CONNECT WITH TONE (TCW) OPERATIONS
44	(2C)	4 DECWAREA	ADDRESS OF DATA AREA IN LEADING-GRAPHICS AND CONVERSATIONAL OPERATIONS, OR OF AREA CONTAINING TONE CHARACTERS IN READ TCW OPERATIONS

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	0 (0)	DECCCWRI	2 X'40'	DECREVRS	24 X'02'
	4 (4)	DECCC2	1 (1)	DECRLN	25 (19)
	5 (5)	DECCC3	2 (2)	DECRSV01	4 X'40'
	6 (6)	DECCMCOD	20 (14)	DECRSV02	4 X'20'
	8 (8)	DECCOUNT	18 (12)	DECRSV03	4 X'10'
	12 (C)			DECRSV04	4 X'08'
	16 (10)			DECRSV05	4 X'04'
	6 (6)	DECCSWST	30 (1E)	DECRSV06	4 X'02'
	8 (8)	DECDCBAA	9 (9)	DECRSV07	4 X'01'
	12 (C)	DECDCBAD	8 (8)	DECRSV08	5 X'08'
	37 (25)	DECDIAGN	29 X'10'	DECRSV09	5 X'02'
	0 (0)	DECDFAC	24 X'40'	DECRSV10	20 (14)
	4 (4)	DECDSABL	29 X'08'	DECRSV11	0 X'20'
	5 (5)	DECDBNF	4 X'04'	DECRSV12	0 X'10'
	6 (6)	DECENTRA	21 (15)	DECRSV13	0 X'08'
	12 (C)	DECENTRY	20 (14)	DECRSV14	0 X'04'
DECACTAD	4 X'08'	DECERPER	29 X'20'	DECRSV15	0 X'02'
		DECERRMS	24 X'80'	DECRSV16	0 X'01'
DECADRPT	32 (20)	DECERRST	29 (1D)	DECRSV17	4 X'80'
DECALTAC	24 X'20'	DECEXASR	25 X'02'	DECRSV18	4 X'40'
DECAREA	12 (C)	DECEXDUP	24 X'01'	DECRSV19	4 X'20'
DECBADID	24 X'10'	DECEXERR	24 X'08'	DECRSV20	4 X'10'
DECBAAREA	12 (C)	DECEXINV	24 X'10'	DECRSV21	4 X'08'
DECBAR	4 X'01'	DECEXNSP	24 X'20'	DECRSV22	4 X'04'
DECBDCBA	8 (8)	DECEXOFL	24 X'02'	DECRSV23	5 X'40'
DECBECB	0 (0)	DECEXRKU	25 X'01'	DECRSV24	5 X'10'
DECBECBF	0 (0)	DECEXRLC	24 X'40'	DECRSV25	5 X'02'
DECBEXC1	24 (18)	DECEXRNF	24 X'80'	DECRSV26	5 X'01'
DECBEXC2	25 (19)	DECEXSRC	4 X'20'	DECRSV27	25 X'80'
DECBKEY	20 (14)	DECEXUBK	24 X'04'	DECRSV28	25 X'40'
DECBKLS	5 X'40'	DECFDBCK	4 X'10'	DECRSV29	25 X'20'
DECBLGTH	6 (6)	DECFLGS	24 (18)	DECRSV30	25 X'10'
DECBLS	4 X'02'	DECIOBPT	16 (10)	DECRSV31	25 X'08'
DECBLOGR	16 (10)	DECKEYS	5 X'80'	DECRSV32	25 X'04'
DECBPOST	0 X'40'	DECKYADR	20 (14)	DECRSV33	2 X'80'
DECBPTR	4 (4)	DECLNGTH	6 (6)	DECRSV34	3 (3)
DECBRB	0 (0)	DECLNS	4 X'80'	DECRSV35	5 X'01'
DECBRBA	1 (1)	DECNA	28 (1C)	DECRSV36	28 (1C)
DECBRDK	5 X'80'	DECNAA	29 (1D)		
DECBRDKU	5 X'20'	DECNDXPL	36 (24)		
DECBTYP1	4 (4)	DECNEGRP	24 X'04'		
DECBTYP2	5 (5)	DECNEXT	20 (14)		
DECBUFCT	8 (8)	DECNEXTA	21 (15)		
DECBWAIT	0 X'80'			DECRSV42	36 (24)
DECBWRK	5 X'08'	DECNOBUF	24 X'08'	DECRSV43	4 X'40'
DECBWRKN	5 X'04'	DECOFLOW	4 X'40'	DECRSV44	4 X'20'
DECCCEOD	1 X'04'	DECONLTS	8 X'80'	DECRSV45	4 X'10'
DECCCERR	1 X'08'	DECONLTT	8 (8)	DECRSV46	4 X'08'
DECCCEXS	2 X'20'			DECRSV47	8 X'20'
DECCCINV	1 X'10'	DECOPRD	5 X'08'	DECRSV48	8 X'10'
DECCCKFF	2 X'01'	DECPOLPA	37 (25)	DECRSV49	8 X'08'
DECCCNBK	2 X'10'	DECPOLPT	36 (24)	DECRSV50	8 X'04'
DECCCNSP	1 X'20'	DECRCVMS	8 X'40'	DECRSV51	8 X'02'
DECCCOPT	2 X'02'	DECRDAPL	4 X'80'	DECRSV52	8 X'01'
DECCCREX	1 X'01'	DECRDEX	4 X'02'	DECRSV53	29 X'04'
DECCCRLC	1 X'40'	DECRDSB	5 X'40'	DECRSV54	29 X'02'
DECCCRNF	1 X'80'	DECRDSF	5 X'80'	DECRSV55	29 X'01'
DECCCSDK	2 X'04'	DECRCPT	24 (18)	DECRSV56	40 (28)
DECCCUER	1 X'02'	DECRLBA	4 X'01'	DECSAREA	4 X'02'
DECCCWDI	2 X'08'	DECRESNP	26 (1A)	DECSDECB	0 (0)

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DECSSENS0	16 (10)				
DECSSENS1	17 (11)				
DECSIO3	29 X'80'				
DECSLNTH	4 X'01'				
DECSRKEY	5 X'04'				
DECSTRME	4 X'04'				
DECSTXNQ	24 X'01'				
DECTPCOD	28 (1C)				
DECTYPE	4 (4)				
DECTYPE1	4 (4)				
DECTYPE2	5 (5)				
DECTYPR	5 X'10'				
DECTYPRU	5 X'30'				
DECUNDEF	29 X'40'				
DECVERFY	4 X'80'				
DECWACK	24 X'C0'				
DECWAREA	44 (2C)				
DECWLNG	42 (2A)				
DECWRADD	5 X'02'				
DECWRSD	5 X'10'				
DECWRSF	5 X'20'				
DECWRSFR	5 X'01'				
DECWRSZ	5 X'04'				
LINEDECB	0 (0)				

END OF DECB

## **Data Event Control Block -- TCAM**

The data event control block (DECB) is created whenever a READ or WRITE macro instruction is expanded. It contains information about the input or output operation that has been requested.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 DECSDECB	STATUS FLAG + ADDRESS OF THE TCB
4	(4)	2 DECTYPE	OPERATION TYPE
6	(6)	2 DECLNGTH	AREA LENGTH
8	(8)	1 DECONLTT	RESERVED FOR ON-LINE TERMINAL TEST
8	(8)	4 DECDCBAD	ADDRESS OF DCB
12	(C)	4 DECAREA	ADDRESS OF AREA
16	(10)	1 DECSSENS0	1ST SENSE BYTE
17	(11)	1 DECSSENS1	2ND SENSE BYTE
18	(12)	2 DECCOUNT	RESIDUAL COUNT
20	(14)	1 DECCMCO	COMMAND CODE
20	(14)	4 DECENTRY	ADDRESS OF TERMINAL LIST
24	(18)	1 DECFLAGS	STATUS FLAGS
25	(19)	1 DECRLN	RELATIVE LINE NUMBER
26	(1A)	2 DECRESPN	RESPONSE FIELDS
28	(1C)	1 DECTPCOD	TP-OP CODE
29	(1D)	1 DECERRST	ERROR STATUS
30	(1E)	2 DECCSWST	CSW STATUS
32	(20)	4 DECADRPT	ADDRESS OF CURRENT ADDRESSING ENTRY
36	(24)	4 DECPOLPT	ADDRESS OF CURRENT POLLING ENTRY
40	(28)	2	RESERVED
42	(2A)	2 DECWLNG	WRITE AREA LENGTH
44	(2C)	4 DECWAREA	ADDRESS OF WRITE AREA

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	40 (28)				
DECADRPT	32 (20)				
DECAREA	12 (C)				
DECCMCD	20 (14)				
DECCOUNT	18 (12)				
DECCSWST	30 (1E)				
DEDCBAD	8 (8)				
DECENTRY	20 (14)				
DECERRST	29 (1D)				
DECFLAGS	24 (18)				
DECLNGTH	6 (6)				
DECONLTT	8 (8)				
DECPOLPT	36 (24)				
DECRESPT	26 (1A)				
DECRLN	25 (19)				
DECSDECB	0 (0)				
DECSSENS0	16 (10)				
DECSSENS1	17 (11)				
DECTPCOD	28 (1C)				
DECTYPE	4 (4)				
DECWAREA	44 (2C)				
DECWLNG	42 (2A)				

END OF DECB - TCAM





## Device Name Table

The device name table (DNT) contains all of the device names that are in use. The DNT is a part of the job management initiator/terminator routine. The information in this table and in the unit control blocks is used in the allocation of devices as specified on dd statements.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4	THE NUMBER OF 12-BYTE ENTRIES IN THE TABLE. EACH DEVICE NAME HAS ONE ENTRY.
			THE FOLLOWING 12 BYTE FIELD IS REPEATED FOR EACH DEVICE
+0	(0)	8	A DEVICE NAME WHICH IS GENERIC OR USER ASSIGNED. THE NAME IS LEFT JUSTIFIED AND PADDED WITH BLANKS TO THE RIGHT. THE GENERIC NAME IS AN IBM GENERATED NAME UP TO 8 CHARACTERS IN LENGTH. FOR EXAMPLE, 3400, 3330. THE USER ASSIGNED NAME MAY BE UP TO 8 CHARACTERS IN LENGTH. FOR EXAMPLE, MAGTAPE, DISK, CARDIN.
+8	(8)	4	FOR A GENERIC NAMED DEVICE TYPE, SAME AS UCBTYP FIELD IN THE UCB EXCEPT THAT OPTIONAL FEATURES ARE NOT SHOWN; BYTE 2 CONTAINS ZEROS.
+8	(8)	2	FOR A USER ASSIGNED NAME DEVICE, A DIGIT ONE HIGHER THAN THE DIGIT FOR THE PRECEDING USER ASSIGNED NAME. THE FIRST ENTRY FOR A USER ASSIGNED NAME CONTAINS A ONE IN THIS FIELD.
+10	(A)	1	FLAG
	xxxx	xx..	IF ONE DEVICE IS ASSOCIATED WITH THE DEVICE NAME, SAME AS BITS 0-5 OF BYTE 3 OF THE UCBTYP FIELD. IF MORE THAN ONE DEVICE IS ASSOCIATED WITH THE NAME, THE RESULT OF ORING THE BITS 0-5 OF BYTE 3 OF THE UCBTYP FIELD FOR EACH DEVICE.
	....	..00	ALWAYS ZERO.
+11	(B)	1	ZERO.

NAME

OFFSETS/  
EQU VALUE

0 (0)  
+0 (0)  
+8 (8)  
+10 (A)  
+11 (B)

NAME

OFFSETS/  
EQU VALUE

END OF DNT

NAME

OFFSETS/  
EQU VALUE



## Data Set Control Blocks

The data set label for a data set residing on a direct access volume is called a data set control block (DSCB). One or more DSCBs are used to describe the data set. Each DSCB is 140 bytes long, consisting of a 44 byte key and a 96 byte data portion.

The DSCBs describing all data sets on a volume make up the volume table of contents (VTOC).

Separate descriptions are presented for the following DSCB formats:

- Format 1 -- Identifier DSCB
- Format 2 -- Index DSCB
- Format 3 -- Extension DSCB
- Format 4 -- VTOC DSCB
- Format 5 -- Free Space DSCB
- Format 6 -- Shared Extent DSCB

In addition, there is a format 0 DSCB, the free VTOC record. It has the same format as the other DSCB formats; however, it contains all binary zeros.



## **Format 1 -- Identifier Data Set Control Block**

The identifier data set control block (DSCB) describes the characteristics and up to three extents of a data set. For data sets having indexed sequential (IS) organization, additional characteristics are specified in a format 2 (index) DSCB pointed to by the format 1 DSCB. Additional extents are described in a format 3 (extension) DSCB pointed to by the format 1 DSCB (or format 2 when the data set has IS organization). A data set can have a maximum of 16 extents on one volume.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	44 DS1DSNAM	DATA SET NAME IN EBCDIC.
44	(2C)	1 DS1FMTID	FORMAT IDENTIFIER; HEX F1 IDENTIFIES THIS AS A FORMAT 1 DSCB.
45	(2D)	6 DS1DSSN	DATA SET SERIAL NUMBER. THIS FIELD IS IDENTICAL TO THE CONTENTS OF THE VOLUME SERIAL NUMBER FIELD IN THE VOLUME LABEL OF THE FIRST OR ONLY VOLUME ON WHICH THE DATA SET RESIDES.
51	(33)	2 DS1VOLSQ	VOLUME SEQUENCE NUMBER IN BINARY. INDICATES THE ORDER OF THIS VOLUME RELATIVE TO THE FIRST VOLUME ON WHICH THE DATA SET RESIDES.
53	(35)	3 DS1CREDT	CREATION DATE IN BINARY, IN THE FORM YDD.  Y - YEAR: 00-99 DD - DAY: 001-366
56	(38)	3 DS1EXPDT	EXPIRATION DATE IN BINARY, IN THE FORM YDD (AS ABOVE). INDICATES THE YEAR AND THE DAY OF THE YEAR THE DATA SET MAY BE PURGED. IF NEITHER A RETENTION PERIOD NOR AN EXPIRATION DATE HAS BEEN SPECIFIED, YDD IS ZERO.
59	(3B)	1 DS1NOEPV	NUMBER OF SEPARATE EXTENTS IN WHICH THE DATA SET RESIDES ON THIS VOLUME. THIS COUNT DOES NOT INCLUDE THE EXTENT DESCRIBING A USER'S LABEL TRACK.
60	(3C)	1 DS1NOBDB	NUMBER OF BYTES USED IN THE LAST PDS DIRECTORY BLOCK. A VALUE OF ZERO INDICATES THAT THE LAST AVAILABLE BLOCK IS NOT BEING USED.
61	(3D)	1	RESERVED.
62	(3E)	13 DS1SYSCD	SYSTEM CODE. AN EBCDIC CODE THAT UNIQUELY IDENTIFIES THE OPERATING SYSTEM. THE FIRST THREE CHARACTERS ARE IBM. THE REMAINING CHARACTERS ARE THE SYSTEM CODE ASSIGNED TO THE CREATING SYSTEM.
75	(4B)	7	RESERVED.
82	(52)	2 DS1DSORG	DATA SET ORGANIZATION.
		BYTE 1	CODE
		1... ..	IS INDEXED SEQUENTIAL ORGANIZATION.
		.1.. ..	PS PHYSICAL SEQUENTIAL ORGANIZATION.
		..1. ....	DA DIRECT ORGANIZATION. (RESERVED BITS)
		...1 ....	CX BTAM LINE GROUP
		.... XX..	RESERVED BITS.
		.... ..1.	PO PARTITIONED ORGANIZATION.
		.... ...1	U UNMOVABLE -- THE DATA CONTAINS LOCATION DEPENDENT INFORMATION.
		BYTE 2	
83	(53)		
		1... ..	GS GRAPHICS ORGANIZATION.
		.1.. ..	TX TCAM LINE GROUP.
		..1. ....	TQ TCAM MESSAGE QUEUE.
		...X X.XX	RESERVED.
		.... .1..	TR TCAM 3705.
84	(54)	1 DS1RECFM	RECORD FORMAT.
		10.. ....	F FIXED LENGTH RECORD FORMAT.
		01.. ....	V VARIABLE LENGTH RECORD FORMAT.
		11.. ....	U UNDEFINED LENGTH RECORD FORMAT.
		..1. ....	T TRACK OVERFLOW.



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
...	1	....	B BLOCKED: MAY NOT OCCUR WITH UNDEFINED (U).
....	1	...	S FIXED LENGTH RECORD FORMAT: STANDARD BLOCKS; NO TRUNCATED BLOCKS OR UNFILLED TRACKS ARE EMBEDDED IN THE DATA SET. VARIABLE LENGTH RECORD FORMAT: SPANNED RECORDS.
....	.10.		A ANSI CONTROL CHARACTER.
....	.01.		M MACHINE CONTROL CHARACTER.
....	.00.		NO CONTROL CHARACTER.
....	...x		RESERVED.
85	(55)	1 DS1OPTCD	OPTION CODE -- SAME AS DCBOPTCD FIELD IN DCB.
86	(56)	2 DS1BLKL	BLOCK LENGTH FOR FIXED LENGTH RECORDS OR MAXIMUM BLOCK SIZE FOR VARIABLE OR UNDEFINED LENGTH RECORDS.
88	(58)	2 DS1LRECL	FORMAT F RECORDS: RECORD LENGTH. FORMAT U RECORDS: ZERO. FORMAT V RECORDS: UNSPANNED RECORD FORMAT: MAXIMUM RECORD LENGTH. SPANNED RECORD FORMAT - RECORDS UP TO 32,756 BYTES: MAXIMUM RECORD LENGTH. RECORDS EXCEEDING 32,756 BYTES. X'8000'.
90	(5A)	1 DS1KEYL	KEY LENGTH. THE LENGTH (1-255 BYTES) OF THE KEY OF THE DATA RECORDS IN THE DATA SET. A VALUE OF ZERO INDICATES THAT NO KEY EXISTS.
91	(5B)	2 DS1RKP	RELATIVE KEY POSITION IN THE DATA BLOCK.
93	(5D)	1 DS1DSIND	DATA SET INDICATORS.
	1	...	THIS IS THE LAST VOLUME ON WHICH THIS DATA SET NORMALLY RESIDES
	..1.	....	BLOCK LENGTH MUST ALWAYS BE A MULTIPLE OF 8 BYTES.
	...x	.x..	DATA SET SECURITY.
	...1	.0..	PASSWORD IS REQUIRED TO READ OR WRITE.
	...1	.1..	PASSWORD IS REQUIRED TO WRITE BUT NOT TO READ.
	.X..	X.XX	(RESERVED BITS)
94	(5E)	4 DS1SCALO	ALLOCATION PARAMETERS. TYPE OF REQUEST ISSUED FOR THE INITIAL ALLOCATION AND TO BE USED FOR SUBSEQUENT EXTENSIONS. ORIGINAL REQUEST WAS: IN TRACKS RELATIVE TO A SPECIFIC LOCATION. NO SECONDARY ALLOCATION WILL BE ALLOWED. IN BLOCKS (PHYSICAL RECORDS). IN TRACKS. IN CYLINDERS. (RESERVED BITS) FOR A CONTINGUOUS EXTENT. FOR THE MAXIMUM CONTINGUOUS EXTENT ON THE VOLUME. FOR THE FIVE (OR LESS) LARGEST EXTENTS THAT ARE GREATER THAN OR EQUAL TO A SPECIFIED MINIMUM.
	BYTE 1		
	00..	....	
	01..	....	
	10..	....	
	11..	....	
	..XX	....	
	....	1...	
	....	.1..	
	....	..1.	

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	...1		IN RECORDS, TO BE ROUNDED UP TO A CLYINDER BOUNDARY.
95	(5F)	BYTE 2-4	SECONDARY ALLOCATION QUANTITY. NUMBER OF BLOCKS, TRACKS, OR CYLINDERS TO BE REQUESTED AT END OF DATA SET WHEN PROCESSING A SEQUENTIAL OR PARTITIONED DATA SET.
98	(62)	3 DS1LSTAR	THE LAST-BLOCK POINTER IDENTIFIES THE LAST BLOCK WRITTEN IN A SEQUENTIAL OR PARTITIONED ORGANIZATION DATA SET. IT IS IN THE FORMAT TTRLL (LL IS DEFINED UNDER THE NEXT FIELD NAME):  TT - RELATIVE ADDRESS OF TRACK CONTAINING THE LAST BLOCK.  R - BLOCK NUMBER ON THAT TRACK.
101	(65)	2 DS1TRBAL	LL PORTION OF THE FORMAT GIVEN IN DS1LSTAR.  LL - NUMBER OF BYTES REMAINING ON TRACK FOLLOWING THE BLOCK.  NOTE: IF BOTH FIELDS CONTAIN BINARY ZEROS, THE LAST BLOCK POINTER DOES NOT APPLY.
103	(67)	2	RESERVED.
105	(69)	10 DS1EXT1	EXTENT DESCRIPTION FOR THE FIRST EXTENT.  THIS EXTENT DESCRIPTION IS ALSO USED IN FORMAT 3 AND 4 DSCBS.
105	(69)	BYTE 1	DATA SET EXTENT TYPE INDICATOR.  00 FOLLOWING 9 BYTES DO NOT INDICATE ANY EXTENT. 01 THE EXTENT CONTAINS THE DATA BLOCKS (USER'S BLOCKS), OR IS A PRIME AREA (FOR IS DATA SETS). 02 THE EXTENT IS AN OVERFLOW AREA (FOR IS DATA SETS ONLY). 04 THE EXTENT IS AN INDEX AREA (FOR IS DATA SETS ONLY). 40 THE FIRST EXTENT DESCRIPTION DESCRIBES THE USER LABEL EXTENT. 80 THE EXTENT DESCRIBED IS SHARING ONE OR MORE CYLINDERS WITH ONE OR MORE DATA SETS. 81 THE EXTENT DESCRIBED BEGINS AND ENDS ON CYLINDER BOUNDARIES, I.E., THE EXTENT IS COMPOSED OF ONE OR MORE CYLINDERS.
107	(6A)	BYTE 2	EXTENT SEQUENCE NUMBER (M)  UNIQUELY IDENTIFIES EACH SEPARATE EXTENT ON A GIVEN VOLUME FOR A DATA SET. FOR ALL ORGANIZATIONS BUT INDEXED SEQUENTIAL, THE FIRST EXTENT OF THE DATA SET ON EACH VOLUME IS IDENTIFIED WITH ZERO IN THIS FIELD. THE FIRST EXTENT ON EACH VOLUME OF AN INDEXED SEQUENTIAL DATA SET IS IDENTIFIED WITH A VALUE OF ONE IN THE FIELD.  ADDITIONAL EXTENTS ON THE VOLUME ARE IDENTIFIED WITH SEQUENTIALLY INCREASING BINARY VALUES. THIS FIELD IS ALWAYS ZERO FOR AN EXTENT FIELD POINTING TO A USER LABEL TRACK.
107	(6B)	BYTES 3-6	LOWER LIMIT OF THIS EXTENT (CCHH). CONTAINS THE CYLINDER AND THE TRACK ADDRESS SPECIFYING THE STARTING POINT OF THIS EXTENT.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
111	(6F)	BYTES 7-10	UPPER LIMIT OF THIS EXTENT (CCHH). CONTAINS THE CYLINDER AND TRACK ADDRESS SPECIFYING THE ENDING POINT OF THIS EXTENT.
115	(73)	10 DS1EXT2	EXTENT DESCRIPTION FOR THE SECOND EXTENT. SAME FORMAT AS DS1EXT1 FIELD.
125	(7D)	10 DS1EXT3	EXTENT DESCRIPTION FOR THE THIRD EXTENT. SAME FORMAT AS DS1EXT1 FIELD.
135	(87)	5 DS1PTRDS	POINTER TO A FORMAT 2 DSCB, IF DATA SET HAS IS ORGANIZATION, OR POINTER TO A FORMAT 3 DSCB IF DATA SET HAS SEQUENTIAL OR DIRECT ORGANIZATION AND MORE THAN 3 EXTENTS. THIS POINTER HAS THE FORMAT CCHHR. CONTAINS BINARY ZEROS IF NO ADDITIONAL DSCB IS POINTED TO.



## **Format 2 -- Index Data Set Control Block**

The index data set control block (DSCB) describes characteristics of a data set having indexed sequential organization. It is pointed to by a format 1 (identifier) DSCB which contains additional data set characteristics and up to three extent descriptions. Additional extents are described in a format 3 (extension) DSCB pointed to by the format 2 DSCB.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	1	02 HEX CODE 02 -- PROVIDES A UNIQUE KEY FIELD.
1	(1)	7 DS22MIND	ADDRESS OF THE FIRST TRACK OF THE SECOND LEVEL MASTER INDEX IN THE FORM MBBCCHH.
8	(8)	5 DS2L2MEN	CCHHR OF THE LAST ACTIVE INDEX ENTRY IN THE SECOND LEVEL MASTER INDEX.
13	(D)	7 DS23MIND	ADDRESS OF THE FIRST TRACK OF THE THIRD LEVEL MASTER INDEX IN THE FORM MBBCCHH.
20	(14)	5 DS2L3MIN	CCHHR OF THE LAST ACTIVE INDEX ENTRY IN THE THIRD LEVEL MASTER INDEX.
25	(11)	11	RESERVED.
36	(24)	8 DS2LPDT	LAST PRIME TRACK ON THE LAST PRIME CYLINDER.
44	(2C)	1 DS2FMTID	FORMAT IDENTIFICATION FOR FORMAT 2 DSCB. (EBCDIC 2.)
45	(2D)	1 DS2NOLEV	NUMBER OF INDEX LEVELS. A BINARY NUMBER INDICATING HOW MANY LEVELS OF INDEX ARE PRESENT WITH AN INDEXED SEQUENTIAL DATA SET.
46	(2E)	1 DS2DVIND	NUMBER OF TRACKS DETERMINING DEVELOPMENT OF THE MASTER INDEX.
47	(2F)	3 DS21RCYL	HHR OF THE FIRST DATA RECORD ON EACH CYLINDER.
50	(32)	2 DS2LTCYL	HH OF THE LAST DATA TRACK ON EACH CYLINDER.
52	(34)	1 DS2CYLOV	NUMBER OF TRACKS OF CYLINDER OVERFLOW AREA ON EACH CYLINDER.
53	(35)	1 DS2HIRIN	HIGHEST POSSIBLE R ON A TRACK CONTAINING HIGH LEVEL INDEX ENTRIES.
54	(36)	1 DS2HIRPR	HIGHEST POSSIBLE R ON PRIME DATA TRACKS FOR FORMAT F RECORDS.
55	(7)	1 DS2HIROV	HIGHEST POSSIBLE R ON OVERFLOW DATA TRACKS FOR FORMAT F RECORDS.
56	(38)	1 DS2RSHTR	R OF THE LAST DATA RECORD ON A SHARED TRACK.
57	(39)	1 DS2HIRTI	HIGHEST POSSIBLE R ON AN UNSHARED TRACK OF THE TRACK INDEX.
58	(3A)	1 DS2HIIOV	FIXED-LENGTH RECORD FORMAT: HIGHEST POSSIBLE R FOR INDEPENDENT OVERFLOW DATA TRACKS.
59	(3B)	2 DS2TAGDT	VARIABLE-LENGTH RECORD FORMAT: UNUSED. USER SUPPLIED NUMBER OF RECORDS TAGGED FOR DELETION. THIS FIELD IS MERGED TO AND FROM THE DCB FOR BISAM, QISAM SCAN MODE, AND RESUME LOAD.
61	(3D)	3 DS2RORG3	A COUNT OF THE NUMBER OF READ AND WRITE ACCESSES, MADE DURING THE LAST USE OF THE DATA SET, TO AN OVERFLOW RECORD THAT IS NOT FIRST IN A CHAIN OF SUCH RECORDS.
64	(40)	2 DS2NOBYT	NUMBER OF BYTES NEEDED TO HOLD THE HIGHEST-LEVEL INDEX IN MAIN STORAGE.
66	(42)	1 DS2NOTRK	NUMBER OF TRACKS OCCUPIED BY THE HIGHEST LEVEL INDEX.
67	(43)	4 DS2PRCTR	NUMBER OF RECORDS IN THE PRIME DATA AREA.
71	(47)	1 DS2STIND	STATUS INDICATORS.
	X..X XX..		(RESERVED BITS)
	.1.. ....		KEY SEQUENCE CHECKING IS TO BE PERFORMED.
	..1. ....		AN INITIAL LOAD HAS BEEN COMPLETED.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	..1.	LAST BLOCK FULL.
	....	...1	LAST TRACK FULL.
72	(48)	7 DS2CYLAD	ADDRESS OF THE FIRST TRACK OF THE CYLINDER INDEX IN THE FORM MBBCCHH.
79	(4F)	7 DS2ASLIN	ADDRESS OF THE FIRST TRACK OF THE LOWEST LEVEL MASTER INDEX IN THE FORM MBBCCHH.
86	(56)	7 DS2ADHIN	ADDRESS OF THE FIRST TRACK OF THE HIGHEST LEVEL INDEX IN THE FORM MBBCCHH.
93	(5D)	8 DS2LPRAD	ADDRESS OF THE LAST RECORD IN THE PRIME DATA AREA, IN THE FORM MBBCCHHR.
101	(65)	5 DS2LTRAD	CCHHR OF THE LAST NORMAL ENTRY IN THE TRACK INDEX ON THE CYLINDER CONTAINING THE LAST PRIME DATA RECORD OF THE DATA SET.
106	(6A)	5 DS2LCYAD	CCHHR OF THE LAST INDEX ENTRY IN THE CYLINDER INDEX.
111	(6F)	5 DS2LMSAD	CCHHR OF THE LAST INDEX ENTRY IN THE MASTER INDEX.
116	(74)	8 DS2LOVAD	ADDRESS OF THE LAST RECORD WRITTEN IN THE CURRENT INDEPENDENT OVERFLOW AREA, IN THE FORM MBBCCHHR.
124	(7C)	2 DS2BYOVL	NUMBER OF BYTES REMAINING ON THE CURRENT INDEPENDENT OVERFLOW TRACK.
126	(7E)	2 DS2RORG2	NUMBER OF TRACKS REMAINING IN THE INDEPENDENT OVERFLOW AREA.
128	(80)	2 DS2OVRCT	NUMBER OF RECORDS IN THE OVERFLOW AREA.
130	(82)	2 DS2RORG1	NUMBER OF CYLINDER OVERFLOW AREAS THAT ARE FULL.
132	(84)	3 DS2NIRT	HHR OF THE DUMMY TRACK INDEX ENTRY.
135	(87)	5 DS2PTRDS	POINTER TO FORMAT 3 DSCB IF A CONTINUATION IS NEEDED TO DESCRIBE THIS DATA SET. THIS POINTER HAS THE FORMAT CCHHR.





### **Format 3 -- Extension Data Set Control Block**

The extension data set control block (DSCB) describes up to thirteen additional extents that cannot be described in a format 1 DSCB. It is pointed to by a format 1 or format 2 DSCB.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 (KEY IDENTIFIER)	03 A HEXADECIMAL 03 IN EACH BYTE.
4	(4)	40 DS3EXTNT	EXTENT (IN KEY). FOUR TEN-BYTE FIELDS IDENTICAL TO THE DS1EXT1 FIELD IN THE FORMAT 1 DSCB.
44	(2C)	1 DS3FMTID	F3 FORMAT IDENTIFIER -- HEX F3.
45	(2D)	90 DS3AEXT	ADDITIONAL EXTENT. NINE TEN-BYTE FIELDS IDENTICAL TO THE DS1EXT1 FIELD IN THE FORMAT 1 DSCB.
135	(87)	5 DS3PTRDS	RESERVED -- CONTAINS BINARY ZEROS.

## **Format 4 -- VTOC Data Set Control Block**

The VTOC data set control block (DSCB) describes the volume table of contents (VTOC) data set. It is always the first DSCB in the VTOC.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	44 (PADDIN)	HEXADECIMAL 04 IN EACH BYTE.
44	(2C)	1 DS4IDFMT	FORMAT IDENTIFIER - HEXADECIMAL 04.
45	(2D)	5 DS4HPCHR	HIGHEST ADDRESS PREVIOUSLY USED FOR A FORMAT 1 DSCB IN THE FORM CCHHR.
50	(32)	2 DS4DSREC	NUMBER OF AVAILABLE FORMAT 0 DSCBS IN THE VTOC.
52	(34)	4 DS4HCCHH	CCHH OF NEXT AVAILABLE ALTERNATE TRACK.
56	(38)	2 DS4NOATK	NUMBER OF ALTERNATE TRACKS REMAINING.
58	(3A)	1 DS4VTOCI	VTOC INDICATORS.
		1... ..	EITHER NO FORMAT 5 DSCBS EXIST OR THEY DO NOT REFLECT THE TRUE STATUS OF THE VOLUME.
		.... 1...	ACCURATE FORMAT 5 AND 6 DSCBS NOW EXIST AND BIT 0 HAS BEEN TURNED OFF. THIS VOLUME MAY CONTAIN DATA SETS PRODUCED BY THE IBM DISK OPERATING SYSTEM; VS2 ACCESS METHODS MAY NOT BE ABLE TO PROCESS THESE DATA SETS—
		.... .1..	A DADSM FUNCTION HAS BEEN PREMATURELY TERMINATED. POSSIBLE VTOC ERRORS EXIST.
		.xxx ..xx	RESERVED BITS.
59	(3B)	1 DS4NOEXT	HEXADECIMAL 01 TO INDICATE THAT VTOC IS ONE EXTENT.
60	(3C)	2	RESERVED.
			THE FOLLOWING FIELDS DESCRIBE THE DEVICE ON WHICH THIS VOLUME WAS MOUNTED WHEN THE VTOC WAS CREATED
62	(3E)	4 DS4DEVSZ	DEVICE SIZE.
62	(3E)	2	NUMBER OF LOGICAL CYLINDERS. A LOGICAL CYLINDER IS THE SMALLEST COLLECTION OF TWO OR MORE TRACKS THAT CAN BE PROCESSED BY A SET FILE MASK CCW (HEXADECIMAL 1F).
64	(40)	2	NUMBER OF TRACKS PER LOGICAL CYLINDER.
66	(42)	2 DS4DEVTK	NUMBER OF AVAILABLE BYTES ON A TRACK EXCLUSIVE OF HOME ADDRESS AND RECORD 0.
68	(44)	2 DS4DEVOV	OVERHEAD BYTES FOR ANY KEYED BLOCK ON THE 2305. IF BIT 4 OF THE DEVICE INDICATOR FIELD (OFFSET 71) IS SET TO ONE, THIS FIELD IS USED AS A TWO-BYTE FIELD CONTAINING A BINARY COUNT OF THE NUMBER OF BYTES (OVERHEAD BYTES) OCCUPIED BY THE COUNT FIELD, GAPS, AND CHECK BYTES OF A KEYED RECORD.
			IF THE BIT IS SET TO 0, THE FIELD CONSISTS OF THE FOLLOWING INFORMATION:
68	(44)	1 DS4DEVI	A COUNT OF THE NUMBER OF BYTES (OVERHEAD BYTES) OCCUPIED BY THE COUNT FIELD, GAPS, AND CHECK BITS OF A KEYED RECORD THAT IS NOT THE LAST RECORD ON A TRACK.
69	(45)	1 DS4DEVL	A COUNT OF THE NUMBER OF BYTES (OVERHEAD BYTES) OCCUPIED BY THE COUNT FIELD, GAPS, AND CHECK BITS OF A KEYED RECORD THAT IS THE LAST RECORD ON A TRACK.
70	(46)	1 DS4DEVK	THE NUMBER OF OVERHEAD BYTES TO BE SUBTRACTED FROM DS4DEVOV, DS4DEVI, OR DS4DEVL IF THE BLOCK HAS NO KEY FIELD.
71	(47)	1 DS4DEVFG	DEVICE INDICATORS.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
xxxx	....		RESERVED BITS.
....	1...		THE KEYED RECORD OVERHEAD FIELD DS4DEVI IS USED AS A TWO BYTE FIELD TO SPECIFY THE OVERHEAD REQUIRED BY A KEYED RECORD.
....	.1..		THE CCHH OF AN ABSOLUTE ADDRESS IS USED AS A CONTINUOUS BINARY VALUE.
....	..1.		THE CCHH OF AN ABSOLUTE ADDRESS IS USED AS FOUR SEPARATE BINARY VALUES.
....	...1		A TOLERANCE FACTOR MUST BE APPLIED TO ALL BUT LAST RECORD ON TRACK.
			NOTE: IF BITS 5 AND 6 ARE ZERO, THE CC AND HH OF AN ABSOLUTE ADDRESS (CCHHR) ARE USED AS HALFWORD BINARY VALUES.
72	(48)	2 DS4DEVTL	DEVICE TOLERANCE, THE VALUE WHICH, WHEN DIVIDED BY 512, IS USED TO DETERMINE EFFECTIVE LENGTH OF A BLOCK ON A TRACK.
74	(4A)	1 DS4DEVDT	NUMBER OF FULL DSCBS THAT CAN BE CONTAINED ON ONE TRACK( 44 BYTE KEY PLUS 96 BYTE DATA LENGTH).
75	(4B)	1 DS4DEVDB	NUMBER OF FULL PDS DIRECTORY BLOCKS THAT CAN BE CONTAINED ON ONE TRACK (8 BYTE KEY PLUS 256 BYTE DATA LENGTH).
76	(4C)	24	RESERVED.
100	(64)	5 DS4F6PTR	POINTER IN THE FORM CCHHR TO THE FIRST FORMAT 6 DSCB. ZEROS WHEN NOT IN USE.
105	(69)	10 DS4VTOCE	VTOC EXTENT. CONTENTS AND MEANING SAME AS DS1EXT1 IN FORMAT 1 DSCB.
115	(73)	25	RESERVED.



## **Format 5 -- Available Space Data Set Control Block**

The available space data set control block (DSCB) describes the amount of available space on the volume that can be allocated to a data set. Up to 26 available extents can be recorded in one format 5 DSCB. Additional extents are described in other format 5 DSCBS. The first format 5 DSCB follows the VTOC (format 4) DSCB.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 DS5KEYID	KEY IDENTIFICATION - HEXADECIMAL 05 IN EACH BYTE.
4	(4)	5 DS5AVEXT	DESCRIPTION OF AN EXTENT AVAILABLE FOR ALLOCATION TO A DATA SET.
4	(4)	2	RELATIVE TRACK ADDRESS IN BINARY OF THE FIRST TRACK IN THE EXTENT. THE RELATIVE TRACK ADDRESS IS RELATIVE TO THE FIRST TRACK ON THE VOLUME, WHICH HAS A RELATIVE TRACK ADDRESS OF 0.
6	(6)	2	THE NUMBER IN BINARY OF ENTIRELY UNUSED CYLINDERS IN THIS EXTENT.
8	(8)	1	THE NUMBER IN BINARY OF UNUSED TRACKS IN THE EXTENT IN ADDITION TO THOSE CONTAINED IN THE UNUSED CYLINDERS.
9	(9)	35 DS5EXTAV	SEVEN FIVE-BYTE FIELDS IDENTICAL IN FORMAT TO THE DS5AVEXT FIELD. EACH SET IF IT IS USED DESCRIBES A DIFFERENT EXTENT. THE EXTENTS ARE IN THE ORDER OF THEIR FIRST TRACK ADDRESSES.
44	(2C)	1 DS5FMTID	FORMAT IDENTIFIER - HEXADECIMAL F5.
45	(2D)	90 DS5MAVET	EIGHTEEN FIVE-BYTE FIELDS IDENTICAL IN FORMAT TO THE DS5AVEXT FIELD.
135	(87)	5 DS5PTRDS	THE CCHHR ADDRESS OF THE NEXT FORMAT 5 DSCB IF IT EXISTS. IF NONE EXISTS, THIS FIELD CONTAINS BINARY ZEROS.



## Format 6 -- Shared Extent Data Set Control Block

The shared extent data set control block (DSCB) is used for shared cylinder allocation. It describes the extent of space (one or more contiguous cylinders) that are being shared by two or more data sets. Up to 26 extents can be described by one format 6 DSCB. Additional extents are described in other format 6 DSCBs. The format 6 DSCB is pointed to by the VTOC (format 4) DSCB.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 DS6KEYID	KEY IDENTIFICATION - HEXADECIMAL 06 IN EACH BYTE.
4	(4)	5 DS6AVEXT	EXTENT OF SPACE (ONE OR MORE CONTIGUOUS CYLINDERS) THAT IS BEING SHARED BY TWO OR MORE DATA SETS.
4	(4)	2	RELATIVE TRACK ADDRESS OF THE FIRST CYLINDER.
6	(6)	2	NUMBER OF FULL CYLINDERS BEING SHARED.
8	(8)	1	NUMBER OF DATA SETS SHARING THE EXTENT.
9	(9)	35 DS6EXTAV	SEVEN FIVE-BYTE FIELDS IDENTICAL IN FORMAT TO DS6AVEXT. THE FIELDS ARE IN RELATIVE TRACK ADDRESS SEQUENCE.
44	(2C)	1 DS6FMTID	FORMAT IDENTIFIER - HEXADECIMAL F6.
45	(2D)	0 DS6MAVET	EIGHTEEN FIVE-BYTE FIELDS IDENTICAL IN FORMAT TO DS6AVEXT.
135	(87)	5 DS6PTRDS	POINTER IN FORM CCHHR TO NEXT FORMAT 6 DSCB.

## Data Set Labels -- Magnetic Tape

The blocks of information that serve as labels for data sets residing on magnetic tape are the data set label 1 and the data set label 2. For IBM standard tapes these blocks are 80 bytes long and are in EBCDIC characters in storage and on nine-track tape, and in BCD characters on seven-track tape.

data set labels 1 and 2, together with user labels (if used), comprise header labels, end-of-volume trailer labels, and end-of-data-set trailer labels. Separate descriptions are presented for data set label 1 and data set label 2.

Tapes recorded in ASCII have different label requirements. These tapes, when created by VS2, follow the conventions of the American National Standards Institute. Significant differences between IBM standard labels and ANS labels are as follows:

- Data set label 2 is optional under American National standards.
- Because of word length requirements of some computer manufacturers, labels longer than 80 characters may be present on ASCII tapes.
- The American National standards do not support seven-track tape; all of their standard labels are recorded in ASCII on nine-track tape.



## **Data Set Label 1 -- FL1**

Data set label 1 is 80 characters in length and describes the associated data set. This format is used for header labels, end-of-volume trailer labels, and end-of-data-set labels. It is followed by data set label 2. All IBM standard header label groups, end-of-volume trailer label groups, and end-of-data-set trailer label groups must consist of both of these labels. These labels are written in EBCDIC code on nine-track tapes and in BCD code on seven-track tapes. The labels are written in ASCII code on ASCII tapes. All ASCII tapes must be nine-track tapes.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	3 FL1LABI	LABEL IDENTIFIER. HDR - HEADER LABEL, EOVS - END-OF-VOLUME TRAILER LABEL, EOF - END-OF-DATA-SET TRAILER LABEL.
3	(3)	1 FL1NO	DATA SET LABEL NUMBER = 1.
4	(4)	17 FL1ID	DATA SET IDENTIFIER.
21	(15)	6 FL1FILSR	DATA SET SERIAL NUMBER, SAME AS CODE THAT APPEARS IN THE VOLSERNO FIELD OF THE INITIAL VOLUME LABEL OF THE FIRST OR ONLY VOLUME OF THE DATA SET OR MULTI-DATA SET AGGREGATE.
27	(1B)	4 FL1VOLSQ	VOLUME SEQUENCE NUMBER, THE VOLUME ON WHICH THE DATA SET IS RECORDED IN RELATION TO THE VOLUME ON WHICH THE DATA SET BEGINS.
31	(1F)	4 FL1FILSQ	THE POSITION OF THE DATA SET RELATIVE TO THE FIRST DATA SET IN A MULTIPLE DATA SET AGGREGATE.
35	(23)	4 FL1GNO	GENERATION NUMBER OF THE DATA SET.
39	(27)	2 FL1VNG	VERSION NUMBER OF THE GENERATION OF THE DATA SET.
41	(29)	6 FL1CREDIT	CREATION DATE. YEAR AND DAY - IN FORMAT BYYDD. B = BLANK YY = YEAR (00-99) DDD = DAY (001-366)
47	(2F)	6 FL1EXPDT	EXPIRATION DATE IN SAME FORMAT AS DS1CREDIT.
53	(35)	1 FL1FSEC	DATA SET SECURITY INDICATOR.
		1111 0000	DATA SET IS NOT SECURITY PROTECTED. FOR AN ASCII TAPE, A SPACE INDICATES THAT THE DATA SET IS NOT SECURITY PROTECTED.
		1111 0001	DATA SET IS SECURITY PROTECTED. FOR AN ASCII TAPE, ANY CHARACTER EXCEPT ONE OR A SPACE PREVENTS ANY ACCESS TO THE DATA SET.
		1111 0011	READ WITHOUT PASSWORD.
54	(36)	6 FL1BLKCT	HEADER LABELS: ZEROS. TRAILER LABELS: THE NUMBER OF BLOCKS IN THE DATA SET OR ON THE CURRENT VOLUME OF A MULTI-VOLUME DATA SET.
60	(3C)	13 FL1SYSCD	SYSTEM CODE IDENTIFYING THE PROGRAMMING SYSTEM. ASCII TAPES, CREATED BY THE OPERATING SYSTEM, WILL HAVE "IBM/OS360" WRITTEN IN THE FIRST NINE BYTES OF THIS FIELD.
73	(49)	7	RESERVED. MUST BE RECORDED AS ZEROS.

## **Data Set Label 2 -- FL2**

Data set label 2 immediately follows data set label 1 and is written in the same code as data set label 1. It is 80 characters long and contains information about the data set, in addition to that in data set label 1. On an ASCII tape, data set label 2 is optional during input and required during output.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	3 FL2LABI	LABEL IDENTIFIER. HDR - HEADER LABELS EOV - END-OF-VOLUME TRAILER LABELS EOF - END-OF-DATA-SET TRAILER LABELS
3	(3)	1 FL2NO	DATA SET LABEL NUMBER = 2.
4	(4)	1 FL2RECFM	RECORD FORMAT. F - FIXED LENGTH V - VARIABLE LENGTH U - UNDEFINED LENGTH D - VARIABLE LENGTH (ASCII)
5	(5)	5 FL2BLKL	BLOCK LENGTH. IF FORMAT IS V,U, OR D, THIS VALUE IS THE MAXIMUM BLOCK LENGTH. FOR FORMAT F, IT IS THE BLOCK LENGTH.
10	(A)	5 FL2LRECL	RECORD LENGTH DEPENDING UPON FORMAT. FORMAT F: RECORD LENGTH. FORMAT U: ZERO. FORMAT V: UNSPANNED FORMAT - MAXIMUM RECORD LENGTH. SPANNED FORMAT- UP TO 32K BYTES: MAXIMUM RECORD LENGTH. 32K BYTES OR MORE: 999999. FORMAT D: 2048 BYTES MAXIMUM.
15	(F)	1 FL2DEN	TAPE DENSITY FOR 24XX/34XX MAGNETIC TAPE DEVICES. EBCDIC VALUE      7-TRACK      9-TRACK 0                    200 BPI            - 1                    556 BPI            - 2                    800 BPI            800 3                    -                    1600 BPI
16	(10)	1 FL2FILP	DATA SET POSITION. EBCDIC VALUE      MEANING 1                    VOLUME SWITCH PREVIOUSLY OCCURRED. 0                    NO VOLUME SWITCH OCCURRED.
17	(11)	8 FL2JOBID	JOB IDENTIFICATION.
25	(19)	1 FL2JSSP	SLASH (/).
26	(1A)	8 FL2STEPD	STEP IDENTIFICATION.
34	(22)	2 FL2TRTCH	TAPE RECORDING TECHNIQUE USED TO CREATE THIS TAPE (SEVEN-TRACK ONLY). CB - DATA CONVERSION FEATURE USED. EB - EVEN PARITY USED. TB - BCD TO EBCDIC TRANSLATION REQUIRED. ET - EVEN PARITY AND BCD TO EBCDIC TRANSLATION REQUIRED. BB - ODD PARITY AND NO TRANSLATION REQUIRED. (B = BLANK)
36	(24)	1 FL2CNTRL	PRINTER CONTROL CHARACTER USED TO CREATE DATA SET. A - AMERICAN NATIONAL STANDARD CONTROL CHARACTERS M - MACHINE CONTROL CHARACTERS B - RECORDS CONTAIN NO CONTROL CHARACTERS (B = BLANK)
37	(25)	1	RESERVED.



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
38	(26)	1 FL2BLKA	BLOCK ATTRIBUTE. B - BLOCKED RECORDS. S - SPANNED RECORDS. R - BOTH BLOCKED AND SPANNED RECORDS. B - NEITHER BLOCKED NOR SPANNED RECORDS. (B = BLANK)
39	(27)	41	IBM STANDARD TAPE: RESERVED. MUST BE RECORDED AS SPACES.
39	(27)	11	ASCII TAPE: RESERVED. MUST BE RECORDED AS SPACES.
50	(32)	2 FL2BUFOF	ASCII TAPE: LENGTH OF OPTIONAL BLOCK PREFIX.
52	(34)	28	ASCII TAPE: RESERVED. MUST BE RECORDED AS SPACES.



## Event Control Block

The event control block (ECB) is used for communication among various components of the control program, as well as between problem programs and the control program. An ECB is the subject of the WAIT and POST macro instructions.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 ECBRB	RB ADDRESS WHILE WAITING FOR EVENT
0	(0)	1 ECBCC	COMPLETION CODE
	.1...	.... ECBWAIT	WAITING FOR COMPLETION OF EVENT
	.1...	.... ECBPOST	EVENT HAS COMPLETED
	.111	1111 ECBNORM	CHANNEL PROGRAM HAS TERMINATED WITHOUT ERROR
	.1...	.... ECBPERR	CHANNEL PROGRAM HAS TERMINATED WITH PERMANENT ERROR, OR FOR BTAM - COMPLETED WITH AN I/O ERROR
	.1...	...1. ECBDAEA	CHANNEL PROGRAM HAS TERMINATED BECAUSE A DIRECT ACCESS EXTENT ADDRESS HAS BEEN VIOLATED
	.1...	...11 ECBABEND	I/O ABEND CONDITION OCCURRED FOR ERROR TRANSIENT LOADING TASK
	.1...	.1... ECBINCPT	CHANNEL PROGRAM HAS BEEN INTERCEPTED BECAUSE OF PERMANENT ERROR ASSOCIATED WITH DEVICE END FOR PREVIOUS REQUEST. YOU MAY REISSUE THE INTERCEPTED REQUEST.
	.1...	1... ECBREPRG	REQUEST ELEMENT FOR CHANNEL PROGRAM HAS BEEN MADE AVAILABLE AFTER IT HAS BEEN PURGED. (ACCESS METHODS OTHER THAN BTAM)
	.1...	1... ECBEHALT	ENABLE COMMAND HALTED OR I/O OPERATION PURGED. (BTAM)
	.1...	1.11 ECBERPAB	ABNORMAL COMPLETION OF ERP PROCESSING DUE TO A CRITICAL ERROR SUCH AS THE PRESENCE OF INVALID CONTROL BLOCK FIELDS
	.1...	1111 ECBERPER	ERROR RECOVERY ROUTINES HAVE BEEN ENTERED BECAUSE OF DIRECT ACCESS ERROR BUT ARE UNABLE TO READ HOME ADDRESS OR RECORD 0.
	.111	.... ECBSETEO	SETEOF MACRO WAS ISSUED IN MESSAGE COMMAND PROGRAM (NO WORK UNIT IN WORKAREA) (TCAM)
	.1.1	11... ECBDMQDS	CONGESTED DESTINATION MESSAGE QUEUE DATA SET (WRITE ONLY) (TCAM)
	.1.1	1... ECBSEQER	SEQUENCE ERROR (TCAM)
	.1.1	.1... ECBINVMD	INVALID MESSAGE DESTINATION (TCAM)
	.1.1	...1. ECBWKOVR	WORKAREA OVERFLOW (TCAM)
	.1.1	.... ECBNOMSG	MESSAGE WAS NOT FOUND WHEN READ MACRO WAS ISSUED IN CONJUNCTION WITH POINT MACRO TO RETRIEVE A MESSAGE (TCAM)
	....	...1. ECBEOQ	END-OF-QUEUE CONDITION (NOT END-OF-FILE) (TCAM)
	....	...1 ECBRAQMT	READ-AHEAD QUEUE EMPTY, BUT DESTINATION QUEUE NOT EMPTY (TCAM)
	.1...	.... ECBDTRAQ	DATA IS ON READ-AHEAD QUEUE (TCAM)
1	(1)	3 ECBRBA	START BLOCK ADDRESS (WHILE AWAITING COMPLETION OF AN EVENT)
1	(1)	3 ECBCCC*	START OR REMAINDER OF COMPLETION CODE (AFTER COMPLETION OF THE EVENT)

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
ECBABEND	0 X'43'				
ECBCC	0 (0)				
ECBCCNT	1 (1)				
ECBDAEA	0 X'42'				
ECBDMQDS	0 X'5C'				
ECBDTRAQ	0 X'40'				
ECBEHALT	0 X'48'				
ECBEOQ	0 X'02'				
ECBERPAB	0 X'4B'				
ECBERPER	0 X'4F'				
ECBINCPT	0 X'44'				
ECBINVMD	0 X'54'				
ECBNOMSG	0 X'50'				
ECBNORM	0 X'7F'				
ECBPERR	0 X'41'				
ECBPOST	0 X'40'				
ECBRAQMT	0 X'01'				
ECBRB	0 (0)				
ECBRBA	1 (1)				
ECBREPRG	0 X'48'				
ECBSEQER	0 X'58'				
ECBSETEO	0 X'70'				
ECBWAIT	0 X'80'				
ECBWKOVR	0 X'52'				

END OF ECB



## Fixed Low Core

Fixed low core is a map of the System/370 permanently assigned storage addresses - locations 0 to 512 (hex 0 to 200).

Also mapped are locations 512 through 724 (hexadecimal locations 200 to 2D4), which are permanently defined storage locations for VS2 software support.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	8 FLCIPPSW	IPL PSW
0	(0)	4 FLCRNPSW	RESTART NEW PSW (AFTER IPL)
4	(4)	4	SECOND HALF OF RESTART NEW PSW (IQARIH01)
8	(8)	8 FLCICCW1	IPL CCW1
8	(8)	8 FLCROPSW	RESTART OLD PSW (AFTER IPL)
16	(10)	8 FLCICCW2	IPL CCW2
16	(10)	4 FLCCVT	ADDRESS OF CVT (AFTER IPL) (IEACVT)
20	(14)	4	RESERVED (AFTER IPL)
24	(18)	8 FLCEOPSW	EXTERNAL OLD PSW
32	(20)	8 FLCSOPSW	SVC OLD PSW
40	(28)	8 FLCPOPSW	PROGRAM CHECK OLD PSW
48	(30)	8 FLCMOPSW	MACHINE CHECK OLD PSW
56	(38)	8 FLCIOPSW	INPUT/OUTPUT OLD PSW
64	(40)	8 FLCCSW	CHANNEL STATUS WORD
72	(48)	4 FLCCAW	CHANNEL ADDRESS WORD
76	(4C)	4 FLCCVT2	ADDRESS OF CVT - USED BY DUMP ROUTINES (IEACVT)
80	(50)	4 FLCTIMER	TIMER
84	(54)	4 FLCTRACE	ADDRESS OF TRACE TABLE HEADER
88	(58)	4 FLCENPSW	EXTERNAL NEW PSW
92	(5C)	4	SECOND HALF OF EXTERNAL NEW PSW (IEAQEX00)
96	(60)	4 FLCSNPSW	SVC NEW PSW
100	(64)	4	SECOND HALF OF SVC NEW PSW (IEAQSC00)
104	(68)	4 FLCPNPSW	PROGRAM CHECK NEW PSW
108	(6C)	4	SECOND HALF OF PROGRAM CHECK NEW PSW (IEAQPK00)
112	(70)	4 FLCMNPSW	MACHINE CHECK NEW PSW
116	(74)	4	SECOND HALF OF MACHINE CHECK NEW PSW
120	(78)	4 FLCINPSW	INPUT/OUTPUT NEW PSW
124	(7C)	4	SECOND HALF OF I/O NEW PSW (IEAQIO00)
128	(80)	4	RESERVED
132	(84)	2	RESERVED - SET TO ZERO
134	(86)	2 FLCEICOD	EXTERNAL INTERRUPTION CODE
136	(88)	1	RESERVED - SET TO ZERO
137	(89)	1 FLCSVILC	SVC ILC IN LAST 3 BITS
	.....	.111 FLCSILCB	3-BIT SVC ILC FIELD
138	(8A)	2 FLCSVCN	SVC INTERRUPTION CODE
140	(8C)	1	RESERVED - SET TO ZERO
141	(8D)	1 FLCPIILC	PROGRAM CHECK ILC IN LAST 3 BITS
	.....	.111 FLCPIILCB	3-BIT PROGRAM CHECK ILC FIELD
142	(8E)	2 FLCPICOD	PROGRAM INTERRUPTION CODE
144	(90)	4 FLCTEA	TRANSLATION EXCEPTION ADDRESS
144	(90)	1	RESERVED - SET TO ZERO



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
145	(91)	3 FLCTEAA	TRANSLATION EXCEPTION ADDRESS
148	(94)	1	RESERVED - SET TO ZERO
149	(95)	1 FLCMCNUM	MONITOR CLASS NUMBER
150	(96)	1 FLCPERCD	PROGRAM EVENT RECORDING CODE
151	(97)	1	RESERVED - SET TO ZERO
152	(98)	4 FLCPER	PER ADDRESS
152	(98)	1	RESERVED - SET TO ZERO
153	(99)	3 FLCPERA	PER ADDRESS
156	(9C)	1	RESERVED - SET TO ZERO
157	(9D)	3 FLCMTRCD	MONITOR CODE
160	(A0)	8	RESERVED
168	(A8)	344 FLCMCLA	MACHINE CHECK LOGOUT AREA
168	(A8)	4 FLCCHNID	CHANNEL ID
172	(AC)	4 FLCIOEL	SAME AS FLCIOELA BELOW
172	(AC)	1	RESERVED
173	(AD)	3 FLCIOELA	I/O EXTENDED LOGOUT (IOEL) POINTER
176	(B0)	4 FLCLCL	LIMITED CHANNEL LOGOUT (ECSW)
180	(B4)	2	RESERVED
182	(B6)	1 FLCEXCHN	EXTENDED CHANNEL STATUS
183	(B7)	1 FLCVLDTY	VALIDITY
184	(B8)	4 FLCIOA	I/O ADDRESS
184	(B8)	1	RESERVED
185	(B9)	3 FLCIOAA	I/O ADDRESS
188	(BC)	44	RESERVED
232	(E8)	8 FLCMCIC	MACHINE-CHECK INTERRUPTION CODE
240	(F0)	8	RESERVED
248	(F8)	4 FLCFSA	FAILING STORAGE ADDRESS
248	(F8)	1	ZEROES
249	(F9)	3 FLCFSAA	FAILING STORAGE ADDRESS
252	(FC)	4 FLCRGNCD	REGION CODE
256	(100)	96 FLCFLA	FIXED LOGOUT AREA
352	(160)	32 FLCFPSAV	FLOATING POINT REGISTER SAVE AREA
384	(180)	64 FLCGRSAV	GENERAL REGISTER SAVE AREA
448	(1C0)	64 FLCCRSAV	CONTROL REGISTER SAVE AREA
512	(200)	FLCHDEND	END OF HARDWARE ASSIGNMENTS
512	(200)	8 FLCAPSW	LOW CORE AREA FOR LOADING PSWS
			DEFINITION OF AEQS USED BY THE ASYNCHRONOUS EXIT EFFECTOR. THIS QUEUE IS REFERENCED BY THE EXIT EFFECTOR, SVC PURGE, AND BY IOS AND MUST BE DEFINED AS ORIGINATING BELOW AN 8K BOUNDARY.
520	(208)	2	RESERVED FOR GENERATION
522	(20A)	2 FLCIERLC	
522	(20A)	2 FLCAEQA	ADDRESS OF NEXT RQE TO BE DEQUEUED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
524	(20C)	2 FLCAEQB	ADDRESS OF LAST RQE QUEUED
526	(20E)	2 FLCAEQC	INITIAL VALUE OF AEQA
528	(210)	4 FLCAEQJ	ADDRESS OF NEXT IQE TO BE DEQUEUED
528	(210)	1 FLCAEQJF	FLAG BYTE
	1111	1111 FLCAEQJI	FLAG TO INDICATE EMPTY QUEUE
529	(211)	3 FLCAEQJA	ADDRESS OF NEXT IQE TO BE DEQUEUED
532	(214)	4 FLCAEQK	ADDRESS OF LAST IQE QUEUED
532	(214)	1 FLCAEQKF	FLAG BYTE
	1111	1111 FLCAEQKI	FLAG TO INDICATE EMPTY QUEUE
533	(215)	3 FLCAEQKA	ADDRESS OF LAST IQE QUEUED
536	(218)	4 FLCAEQS	ADDRESS OF FIRST SUPERVISOR QUEUE ELEMENT (SQE) ON THE QUEUE
536	(218)	1 FLCAEQSF	FLAG BYTE
	1111	1111 FLCAEQSI	FLAG TO INDICATE EMPTY QUEUE
537	(219)	3 FLCAEQSA	ADDRESS OF FIRST SQE ON THE QUEUE
540	(21C)	4 FLCAEQT	ADDRESS OF LAST SQE ON THE QUEUE
540	(21C)	1 FLCAEQTF	FLAG BYTE
	....	.... FLCAEQTI	FLAG TO INDICATE EMPTY QUEUE
541	(21D)	3 FLCAEQTA	ADDRESS OF LAST SQE ON THE QUEUE
544	(220)	64 FLCSCSAV	REGISTER SAVE AREA FOR SVC FLIH
608	(260)	64 FLCPKSAV	REGISTER SAVE AREA FOR PROGRAM CHECK INTERRUPT HANDLER
672	(2A0)	8 FLCDSSTPS	USED BY DSS FOR RESTART OLD PSW
680	(2A8)	4 FLCDSSTAV	USED BY RESTART INTERRUPT HANDLER AND DSS
684	(2AC)	4 FLCDSSTPF	ADDRESS OF PART II OF PREFIX INTERRUPT HANDLER (IQAPFC00)
688	(2B0)	4 FLCDSSTRD	ADDRESS OF RESTART INTERRUPT ROUTINE FOR DSS (IQAPFCRT)
692	(2B4)	1 FLCDSSTFL	DSS FLAG BYTE
	1...	.... FLCDSSTRT	RESTART INTERRUPT OUTSTANDING
	.1..	.... FLCDSSTVM	IF ZERO, VS VM CURRENT IF ONE, DSS VM CURRENT
	..1.	.... FLCDSSTDT	DSS TRANSLATION SPECIFICATION WHILE OPERATING UNDER VS VM
	...1	.... FLCDSSTOI	DSS EXECUTING AN OVERLAID INSTRUCTION
	....	1... FLCDSSTRE	DSS RECURSION FLAG
	....	.1.. FLCDSSTEN	DSS PREFIX INTERRUPT HANDLER ENTRY FLAG
	....	..1. FLCDSSTAT	VS TRANSLATION SPECIFICATION
	....	...1 FLCDSSTSP	IF ZERO, PROGRAM INTERRUPT IF ONE, SVC INTERRUPT
693	(2B5)	3	RESERVED
696	(2B8)	8 FLCDSSTRP	VS RESUME PSW OR DSS RESUME PSW FOR PAGING
704	(2C0)	8 FLCDSSTVC	SAVE AREA FOR SVC OLD PSW
712	(2C8)	12 FLCSAV	LOW CORE WORK AREA

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	4 (4)	FLCCVT2	76 (4C)	FLCSNPSW	96 (60)
	20 (14)	FLCDSSAT	692 X'02'	FLCSOPSW	32 (20)
	92 (5C)	FLCDSSAV	680 (2A8)	FLCSVCN	138 (8A)
	100 (64)	FLCDSSDT	692 X'20'	FLCSVILC	137 (89)
	108 (6C)	FLCDSSEN	692 X'04'	FLCTEA	144 (90)
	116 (74)	FLCDSSFL	692 (2B4)	FLCTEAA	145 (91)
	124 (7C)	FLCDSSOI	692 X'10'	FLCTIMER	80 (50)
	128 (80)	FLCDSSPF	684 (2AC)	FLCTRACE	84 (54)
	132 (84)	FLCDSSPS	672 (2A0)	FLCVLDTY	183 (B7)
	136 (88)	FLCDSSRD	688 (2B0)	IEAEND	*A* FLCEND
	140 (8C)	FLCDSSRE	692 X'08'	IEAPKSAV	*A* FLCPKSAV
	144 (90)	FLCDSSRP	696 (2B8)	IEAPSW	*A* FLCAPSW
	148 (94)	FLCDSSRT	692 X'80'	IEASAV	*A* FLCSAV
	151 (97)	FLCDSSSP	692 X'01'	IEASCSAV	*A* FLCSCSAV
	152 (98)	FLCDSSVC	704 (2C0)	IECIERLC	*A* FLCIERLC
	156 (9C)	FLCDSSVM	692 X'40'	IONPSW	*A* FLCINPSW
	160 (A0)			IOOPSW	*A* FLCIOPSW
	172 (AC)	FLCEICOD	134 (86)	IPLPSW	*A* FLCIPPSW
	180 (B4)			MCNPSW	*A* FLCMNPSW
	184 (B8)	FLCENPSW	88 (58)	MCOPSW	*A* FLCMOPSW
	188 (BC)	FLCEOPSW	24 (18)		
	240 (F0)	FLCEXCHN	182 (B6)	PICODE	*A* FLCPICOD
	248 (F8)	FLCFLA	256 (100)	PIILC	*A* FLCPIILC
	520 (208)	FLCFPSAV	352 (160)	PINPSW	*A* FLCPNPSW
	693 (2B5)	FLCFSA	248 (F8)	PIOPSW	*A* FLCPOPSW
AEQA	*A* FLCAEQA	FLCFSAA	249 (F9)	SVCILC	*A* FLCSVILC
AEQB	*A* FLCAEQB	FLCGRSAV	384 (180)	SVCNPSW	*A* FLCSNPSW
AEQC	*A* FLCAEQC	FLCHDEND	512 (200)	SVCNUM	*A* FLCSVCN
AEQJ	*A* FLCAEQJ	FLCICCW1	8 (8)	SVCOPSW	*A* FLCSOPSW
AEQK	*A* FLCAEQK	FLCICCW2	16 (10)	TIMER	*A* FLCTIMER
AEQS	*A* FLCAEQS	FLCIERLC	522 (20A)		
AEQT	*A* FLCAEQT	FLCINPSW	120 (78)		
EXCODE	*A* FLCEICOD	FLCIOA	184 (B8)		
EXNPSW	*A* FLCENPSW	FLCIOAA	185 (B9)		
EXOPSW	*A* FLCEOPSW	FLCIOEL	172 (AC)		
FLCAEQA	522 (20A)	FLCIOELA	173 (AD)		
FLCAEQB	524 (20C)	FLCIOPSW	56 (38)		
FLCAEQC	526 (20E)	FLCIPPSW	0 (0)		
FLCAEQJ	528 (210)	FLCLCL	176 (B0)		
FLCAEQJA	529 (211)	FLCMCIC	232 (E8)		
FLCAEQJF	528 (210)	FLCMCLA	168 (A8)		
FLCAEQJI	528 X'FF'	FLCMCNUM	149 (95)		
FLCAEQK	532 (214)	FLCMNPSW	112 (70)		
FLCAEQKA	533 (215)	FLCMOPSW	48 (30)		
FLCAEQKF	532 (214)	FLCMTRCD	157 (9D)		
FLCAEQKI	532 X'FF'	FLCPER	152 (98)		
FLCAEQS	536 (218)	FLCPERA	153 (99)		
FLCAEQSA	537 (219)	FLCPERCD	150 (96)		
FLCAEQSF	536 (218)	FLCPICOD	142 (8E)		
FLCAEQSI	536 X'FF'	FLCPIILC	141 (8D)		
FLCAEQT	540 (21C)	FLCPILCB	141 X'07'		
FLCAEQTA	541 (21D)	FLCPKSAV	608 (260)		
FLCAEQTF	540 (21C)	FLCPNPSW	104 (68)		
FLCAEQTI	540 X'00'	FLCPOPSW	40 (28)		
FLCAPSW	512 (200)	FLCRGNCD	252 (FC)		
FLCCAW	72 (48)	FLCRNPSW	0 (0)		
FLCCHNID	168 (A8)	FLCROPSW	8 (8)		
FLCCRSAV	448 (1C0)	FLCSAV	712 (2C8)		
FLCCSW	64 (40)	FLCSCSAV	544 (220)		
FLCCVT	16 (10)	FLCSILCB	137 X'07'		

END OF FLC



## Interruption Control Block

The interruption control block (ICB) is created by the OPEN routines when chained channel-program scheduling has been specified. The ICB is used by the access method routines and is always pointed to by an IOB or another ICB.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 ICBICBA	ADDRESS OF THE NEXT ICB. THE LAST ICB POINTS TO THE FIRST ICB.
4	(4)	4 ICBECEB	EVENT CONTROL BLOCK. SHOWS THE STATUS OF AN I/O OPERATION.
8	(8)	1 ICBFLAG1	FLAG BYTE 1.
	00..	....	NO CHAINING (SEE NOTE).
	01..	....	COMMAND CHAINING (SEE NOTE).
	10..	....	DATA CHAINING (SEE NOTE).
	11..	....	BOTH COMMAND AND DATA CHAINING (SEE NOTE).
	..1.	....	ERROR ROUTINE IS IN CONTROL.
	...1	....	DEVICE IS TO BE REPOSITIONED.
	....	1...	TAPE: CYCLIC REDUNDANCY CHECK (CRC) NEEDED.
	....	.1..	EXCEPTIONAL CONDITION. IF THIS BIT IS ON AFTER CONTROL HAS BEEN RETURNED FROM THE ERROR ROUTINE, THE ERROR IS CONSIDERED PERMANENT.
	....	..1.	IOB UNRELATED (I.E., NONSEQUENTIAL).
	....	...0	START.
	....	...1	RESTART.
			NOTE: CHAINED CHANNEL-PROGRAM SCHEDULING DOES NOT DEPEND ON THESE BITS TO PERFORM ITS CHAINING.
9	(9)	1 ICBFLAG2	FLAG BYTE 2.
	1...	....	HALT I/O HAS BEEN ISSUED.
	.1..	....	SENSE WILL NOT BE PERFORMED UNTIL THE DEVICE IS FREE.
	..1.	....	IOB HAS BEEN PURGED.
	...1	....	HOME ADDRESS (R0) RECORD IS TO BE READ.
	....	xxx.	I/O SUPERVISOR INTERNAL ERROR CORRECTION FLAGS.
	....	...1	QSAM ERROR RECOVERY ROUTINE IN CONTROL FOR A 2540 CARD PUNCH WITH THREE BUFFERS.
10	(A)	1 ICBSSENS0	FIRST SENSE BYTE (DEVICE-DEPENDENT).
11	(B)	1 ICBSSENS1	SECOND SENSE BYTE (DEVICE-DEPENDENT).
12	(C)	4 ICBECEBPT	ADDRESS OF THE ECB TO BE POSTED UPON COMPLETION OF THIS CHANNEL PROGRAM SEGMENT.
16	(10)	1 ICBFLAG3	FLAGS FOR I/O SUPERVISOR ERROR ROUTINE (DEVICE-DEPENDENT).
17	(11)	7 ICBCSW	LOW ORDER 7 BYTES OF THE LAST CSW. SHOWS CHANNEL STATUS FOR THIS REQUEST.
24	(18)	4 ICBSTART	ADDRESS OF THE CHANNEL PROGRAM TO BE EXECUTED.
28	(1C)	2 ICBINCAM	CONSTANT USED TO INCREMENT THE BLOCK COUNT FOR MAGNETIC TAPE. ALWAYS ZERO FOR DASD.
30	(1E)	2 ICBINDIC	INDICATORS.
30	(1E)	1	BYTE 1.
	1...	....	SPECIAL VOLUME FULL INDICATOR SIGNIFYING END-OF-TAPE MARK OR REFLECTIVE SPOT SENSED ALONG WITH A READ OR WRITE ERROR.
	.xxx	xxxx	RESERVED BITS. ALWAYS ZERO.
31	(1F)	1	RESERVED.
32	(20)	8 ICBSEEK	DASD ONLY: SEEK INFORMATION.
32	(20)	1	NUMBER OF THE DEB EXTENT TO BE USED FOR THIS REQUEST. THE FIRST EXTENT IS NUMBER ZERO.
33	(21)	7	THE SEEK ADDRESS FOR THIS I/O REQUEST.

## Input/Output Block

The input/output block (IOB) is the communication medium between a routine that requests an I/O operation and the I/O supervisor. All the information required by the I/O supervisor to execute an I/O operation is contained in the IOB.

The IOB format falls into three segments whose use varies mainly by access method:

Prefix -

- GAM, QISAM.
- BSAM, QSAM, BPAM -- Normal scheduling.
- BSAM, QSAM, BPAM -- Chained scheduling.
- BDAM.

Standard fields -

- Displacements 0-31 decimal (0-1F hexadecimal).

Extension -

- BTAM.
- GAM.
- Direct access storage devices.
- BSAM, QSAM, BPAM.
- QISAM, scan mode.
- BISAM.
- BDAM.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
PREFIX SECTIONS OF THE IOB			
-16	(-10)	IOBPREFX	
QSAM,BSAM,BPAM PREFIX CHAINED SCHEDULING -- 16 BYTES			
-16	(-10)	1 IOBCFLG1	FLAG BYTE
		1... .. IOBRSV01	RESERVED
		.1... .. IOBRSV02	RESERVED
		..1... .. IOBRSV03	RESERVED
		...1... .. IOBRSV04	RESERVED
		.... 1... IOBPTST	NOTE OR POINT OPERATION IS IN PROCESS
		.... .1.. IOBABAPP	ERROR PROCESSED ONCE BY ABNORMAL-END APPENDAGE
		.... ..1. IOBRSTCH	RESTART CHANNEL
		.... ...1 IOBPCI	PCI INTERRUPT HAS OCCURRED
-15	(-F)	1 IOBRSV05	RESERVED
-14	(-E)	1 IOBCINOP	OFFSET OF LAST I/O COMMAND FOR INPUT OPERATION(NOP CCW) FROM THE ORIGIN
-13	(-D)	1 IOBCONOP	OFFSET OF LAST I/O COMMAND FOR OUTPUT OPERATION(NOP CCW) FROM THE ORIGIN
-12	(-C)	4 IOBCECB	EVENT CONTROL BLOCK
-8	(-8)	4 IOBCICB	ADDR.OF FIRST QUEUE
-4	(-4)	4 IOBCNOPA	ADDR.OF NOP COMMAND AT END OF QUEUE
QSAM,BSAM,BPAM PREFIX NORMAL SCHEDULING -- 8 BYTES			
-8	(-8)	4 IOBNIOPA	ADDR.NEXT IOB ON CHAIN
-8	(-8)	1 IOBNFLG1	FLAG BYTE
		1... .. IOBPRTOV	'PRTOV' HAS OCCURRED
		.1... .. IOBWRITE	'WRITE' OPERATION IN PROCESS
		..1... .. IOBREAD	'READ' OPERATION IN PROCESS
		...1... .. IOBUPDAT	BLOCK IS TO BE UPDATED
		.... 1... IOBBKSPC	IOB BEING USED FOR BACKSPACE,CONTROL,NOTE/PT.
		.... ..1.. IOBSPAN	THIS RECORD IS A SPANNED RECORD
		.... ..1. IOBRSV06	RESERVED
		.... ...1 IOBFIRST	THIS IS FIRST IOB ON CHAIN
-7	(-7)	3 IOBNIOPB	ADDR.NEXT IOB ON CHAIN
-4	(-4)	4 IOBNECB	EVENT CONTROL BLOCK
BDAM PREFIX -- 8 BYTES			
-8	(-8)	4 IOBDQADA	ADDR.OF IOB WAITING TO DEQUEUE TRACKS OCCUPIED BY SPANNED RECORDS
-8	(-8)	1 IOBDEQIN	DEQUEUE LOOP INDICATOR
		1... .. IOBDEQ	TASK WITH SPANNED RECORD BEING DEQUEUED
		.1... .. IOBRSV07	RESERVED
		..1... .. IOBRSV08	RESERVED
		...1... .. IOBRSV09	RESERVED
		.... 1... IOBRSV10	RESERVED
		.... ..1.. IOBRSV11	RESERVED
		.... ..1. IOBRSV12	RESERVED
		.... ...1 IOBRSV13	RESERVED
-7	(-7)	3 IOBDQADB	ADDR.OF IOB WAITING TO DEQUEUE TRACKS OCCUPIED BY SPANNED RECORDS
-4	(-4)	4 IOBSWAP	ADDR.OF SPANNED WORK AREA



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
		GAM, BISAM PREFIX --	4 BYTES
-4	(-4)	IOBGQECB	EVENT CONTROL BLOCK
		STANDARD SECTION OF THE IOB	
+0	(0)	IOBSTDRD	
+0	(0)	1 IOBFLAG1	FLAG BYTE
		1... .. IOBDATCH	DATA CHAINING USED IN CHANNEL PROGRAM
		.1.. .. IOBCMDCH	COMMAND CHAINING USED IN CHANNEL PROGRAM
		..1. .. IOBERRTN	ERROR ROUTINE IS IN CONTROL
		...1 .. IOBRPSTN	DEVICE IS TO BE REPOSITIONED
		.... 1... IOBCYCCK	CYCLIC REDUNDANCY CHECK NEEDED(TAPE ONLY)
		.... 1... IOBFCREX	FETCH COMMAND RETRY EXIT (DIRECT ACCESS ONLY)
		.... .1.. IOBIOERR	I/O ERROR HAS OCCURRED
		.... ..1. IOBUNREL	THIS I/O REQUEST IS UNRELATED(NON-SEQUENTIAL)
		.... ...1 IOBRSTRT	RESTART ADDR.IN IOB TO BE USED
+1	(1)	1 IOBFLAG2	FLAG BYTE
		1... .. IOBHALT	HALT I/O HAS BEEN ISSUED BY SVC PURGE ROUTINE
		.1.. .. IOBSENSE	ISSUE SENSE COMMAND AFTER DEVICE END OCCURS
		..1. .... IOBPURGE	IOB HAS BEEN PURGED *ALLOW I/O TO QUIESCE
		...1 .... IOBRDHA0	HOME ADDRESS TO BE READ * NO SEEK NEEDED
		.... 1... IOBALTR	NO TEST FOR OUT-OF-EXTENT * AN ALTERNATE TRACK IS IN USE
		.... .1.. IOBSKUPD	SEEK ADDRESS IS BEING UPDATED -CYLINDER END OR FILE MASK VIOLATION HAS OCCURRED
		.... ..1. IOBSTATO	DEVICE END STATUS HAS BEEN ORED WITH CHANNEL END STATUS - GRAPHICS DEVICE
		.... ...1 IOBPNCH	TURNUED ON BY QSAM WHEN ERROR RECOVERY IS TO BE PROVIDED FOR THE 2540 CARD PUNCH
+2	(2)	1 IOBSENS0	FIRST SENSE BYTE
		1... .. IOBS0B0	BIT 0 (DEVICE DEPENDENT)
		.1.. .. IOBS0B1	BIT 1 (DEVICE DEPENDENT)
		..1. .... IOBS0B2	BIT 2 (DEVICE DEPENDENT)
		...1 .... IOBS0B3	BIT 3 (DEVICE DEPENDENT)
		.... 1... IOBS0B4	BIT 4 (DEVICE DEPENDENT)
		.... .1.. IOBS0B5	BIT 5 (DEVICE DEPENDENT)
		.... ..1. IOBS0B6	BIT 6 (DEVICE DEPENDENT)
		.... ...1 IOBS0B7	BIT 7 (DEVICE DEPENDENT)
		.... ...1 IOBSNSC9	CHANNEL 9 SENSED IN CARRIAGE TAPE
+3	(3)	1 IOBSENS1	SECOND SENSE BYTE
		1... .. IOBS1B0	BIT 0 (DEVICE DEPENDENT)
		.1.. .. IOBS1B1	BIT 1 (DEVICE DEPENDENT)
		..1. .... IOBS1B2	BIT 2 (DEVICE DEPENDENT)
		...1 .... IOBS1B3	BIT 3 (DEVICE DEPENDENT)
		.... 1... IOBS1B4	BIT 4 (DEVICE DEPENDENT)
		.... .1.. IOBS1B5	BIT 5 (DEVICE DEPENDENT)
		.... ..1. IOBS1B6	BIT 6 (DEVICE DEPENDENT)
		.... ...1 IOBS1B7	BIT 7 (DEVICE DEPENDENT)
+4	(4)	4 IOBECBPT	ADDRESS OF ECB TO BE POSTED ON I/O COMPLETION
+4	(4)	1 IOBECBCC	COMPLETION CODE FOR THIS I/O REQUEST
+5	(5)	3 IOBECBPB	ADDRESS OF ECB TO BE POSTED ON I/O COMPLETION

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+8	(8)	1 IOBFLAG3	ERROR ROUTINE FLAG BYTE
+9	(9)	7 IOBCSW	LOW ORDER 7 BYTES OF CSW AT CHANNEL END
+16	(10)	4 IOBSTART	ADDRESS OF CHANNEL PROGRAM
+16	(10)	1 IOBSIOCC	BITS 2 AND 3 = C.C. FROM SIO
+17	(11)	3 IOBSTRTB	ADDRESS OF CHANNEL PROGRAM
+20	(14)	4 IOBDCBPT	ADDRESS OF DATA CONTROL BLOCK FOR THIS IOB
+20	(14)	1 IOBRV36	RESERVED
+21	(15)	3 IOBDCBPB	ADDRESS OF DATA CONTROL BLOCK FOR THIS IOB
+24	(18)	4 IOBRESTR	RESTART ADDRESS FOR ERROR RETRY
+24	(18)	1 IOBREPOS	CODE USED TO REPOSITION DEVICE
+25	(19)	3 IOBRSTRB	RESTART ADDRESS FOR ERROR RETRY
+28	(1C)	2 IOBINCAM	VALUE USED TO INCREMENT BLOCK COUNT ON TAPE
+28	(1C)	1 IOBBTAMF	FLAG BYTE FOR BTAM
	1...	.... IOBPRMER	'SAD', 'ENABLE' ISSUED BY OPEN CAUSED I/O ERROR
	.1..	.... IOBINUSE	IOB IS IN USE
	..1.	.... IOBRV14	RESERVED
	...1	.... IOBRV15	RESERVED
	....	1... IOBRV16	RESERVED
	....	.1.. IOBRV17	RESERVED
	....	..1. IOBRFTMG	INDICATES A REQUEST-FOR-TEST MESSAGE FROM A REMOTE 3270
	....	...1 IOBOLTST	LINE IS UNDER ON-LINE TEST OPERATION
+29	(1D)	1 IOBRV19	RESERVED
+28	(1C)	1 IOBCRDCC	OPTICAL READER: DATA CHECK ERROR COUNT
+29	(1D)	1 IOBCRILC	OPTICAL READER: INCORRECT LENGTH ERROR COUNT
+30	(1E)	2 IOBERRCT	NUMBER OF ERROR RETRIES
EXTENSION SECTIONS OF THE IOB			
DIRECT ACCESS EXTENSION -- 8 BYTES			
+32	(20)	8 IOBSEEK	
+32	(20)	1 IOBM	RELATIVE EXTENT NUMBER FOR THIS REQUEST(0-15)
+33	(21)	2 IOBBB	BIN NUMBER(DATA CELL)*
+33	(21)	1 IOBBB1	
+34	(22)	1 IOBBB2	
+35	(23)	2 IOBCC	CYLINDER NUMBER
+35	(23)	1 IOBCC1	
+36	(24)	1 IOBCC2	
+37	(25)	2 IOBHH	TRACK NUMBER
+37	(25)	1 IOBHH1	
+38	(26)	1 IOBHH2	
+39	(27)	1 IOBR	RECORD NUMBER

OFFSET	LENGTH	NAME	DESCRIPTION
BTAM EXTENSION -- 40 BYTES + CHNL.PGM			
+32	(20)	1 IOBUCBX	LINE NUMBER IS USED TO LOCATE THE PROPER UCB ADDRESS IN THE DEB.
+33	(21)	5 IOBWORK	WORK AREA USED BY ERROR ROUTINES AND ON-LINE TERMINAL ROUTINES
+38	(26)	1 IOBRVPT	RECEIVED ACK (ACK-0 OR ACK-1)
+39	(27)	1 IOBSNDPT	SENT ACK (ACK-0 OR ACK-1)
+40	(28)	8 IOBERCCW	CCW AREA USED BY BTAM ERROR ROUTINES
+48	(30)	16 IOBERINF	ERROR INFORMATION FIELD USED BY BTAM ERROR RTN
+64	(40)	8 IOBCPA	AREA FOR CHANNEL PROGRAMS. LENGTH VARIES ACCORDING TO TERMINAL AND OPTIONS
BISAM EXTENSION -- 16 BYTES			
+40	(28)	4 IOBCCWAD	FOR FIXED LENGTH RCRDS:PTR.TO FIRST CCW FOR VARIABLE RECORDS:PTR.TO BUFFER(DYNAMIC BUFFERING SPECIFIED)AFTER COMPLETION OF READ FOR UPDATE(READ KU)
+44	(2C)	1 IOBINDCT	FLAG BYTE
	1... ..	IOBDEQCP	DEQUEUE CHANNEL PROGRAM FROM QUEUE
	.1.. ..	IOBUNSCH	UNSCHEDULER QUEUE
	..1. ....	IOBOVPTR	PTR.TO OVERFLOW RECORD INDICATOR: BIT = 0 MEANS 'DECBAREA' + 6 POINTS TO OVERFLOW RECORD DATA BIT = 1 MEANS 'DCBMSWA' POINTS TO OVERFLOW RECORD KEY FOLLOWED BY DATA
	...1 ....	IOBKEYAD	PTR.TO OVERFLOW RECORD KEY INDICATOR: BIT = 0 MEANS 'DECBKEY' POINTS TO OVERFLOW RECORD KEY BIT = 1 MEANS 'DCBMSWA' + 8 POINTS TO OVERFLOW RECORD KEY
	.... 1...	IOBRV27	RESERVED
	.... .1..	IOBRV28	RESERVED
	.... ..1.	IOBRV29	RESERVED
	.... ...1	IOBCHNNL	CHANNEL END STATUS INDICATOR: BIT = 0 MEANS NORMAL CHANNEL END OCCURRED BIT = 1 MEANS ABNORMAL END OCCURRED
+45	(2D)	1 IOBUNSR	REASON FOR UNSCHEDULED QUEUE
	1... ..	IOBCPBSY	CHANNEL PROGRAM CP1 OR CP2 BUSY
	.1.. ..	IOBNTAV1	NO CP4,CP5 OR CP6 AVAILABLE
	..1. ....	IOBNTAV2	NO CP7 AVAILABLE
	...1 ....	IOBKNWR	WRITE KN IS IN EFFECT(UNSCHEDULED IOB IS FOR WRITE KN)
	.... 1...	IOBKNRWR	WRITE KN IS IN EFFECT(UNSCHEDULED IOB IS FOR READ OR WRITE KN)
	.... .1..	IOBRV30	RESERVED
	.... ..1.	IOBRV31	RESERVED
	.... ...1	IOBRV32	RESERVED
+46	(2E)	1 IOBAPP	APPENDAGE CODE
+47	(2F)	1 IOBASYN	ASYNCHRONOUS ROUTINE CODE
+48	(30)	4 IOBFCHAD	FORWARD CHAIN ADDRESS
+48	(30)	1 IOBCOUNT	WRITE CHECK COUNTER
+49	(31)	3 IOBFCHNB	FORWARD CHAIN ADDRESS
+52	(34)	4 IOBBCHAD	BACKWARD CHAIN ADDRESS
GAM EXTENSION -- 40 BYTES			
+32	(20)	1 IOBUCBXG	UCB INDEX

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+33	(21)	3 IOBRSV37	RESERVED
+36	(24)	4 IOBNXTPT	PTR.TO NEXT AVAILABLE IOB ZERO IF LAST IOB
+36	(24)	1 IOBSTATA	STATUS SWITCH
	1... ..	IOBAVLFL	IF BIT IS 0,IOB IS AVAILABLE IF BIT IS 1,IOB IS NOT AVAILABLE
	.1.. ..	IOBRSV20	RESERVED
	..1. ....	IOBRSV21	RESERVED
	...1 ....	IOBRSV22	RESERVED
	.... 1...	IOBRSV23	RESERVED
	.... .1..	IOBRSV24	RESERVED
	.... ..1.	IOBRSV25	RESERVED
	.... ...1	IOBRSV26	RESERVED
+37	(25)	3 IOBNXTPB	PTR.TO NEXT AVAILABLE IOB ZERO IF LAST IOB
+40	(28)	32 IOBCCW	CHANNEL COMMAND WORDS USED TO TRANSFER QISAM EXTENSION -- 2 BYTES
+40	(28)	2 W1IEXTEN	APPENDAGE
+40	(28)	2 W1OEXTEN	CODES
			BDAM EXTENSION -- 40 BYTES + CHNL.PGM
+40	(28)	2 IOBDBYTR	NUMBER OF UNUSED BYTES ON TRACK
+42	(2A)	2 IOBDIOBS	OVERALL SIZE OF THE IOB
+44	(2C)	4 IOBDPLAD	ADDRESS OF NEXT IOB IN POOL OF IOB'S
+44	(2C)	1 IOBDAYLI	ALL BITS ZERO INDICATE AVAILABILITY OF IOB
+45	(2D)	3 IOBDPLB	ADDRESS OF NEXT IOB IN POOL OF IOB'S
+48	(30)	1 IOBDTYPE	TYPE OF REQUEST AND SPECIFIED OPTIONS
	1... ..	IOBVERFY	VERIFY
	.1.. ..	IOBOVFLO	OVERFLOW
	..1. ....	IOBEXTSC	EXTENDED SEARCH
	...1 ....	IOBFDBCK	FEEDBACK
	.... 1...	IOBACTAD	ACTUAL ADDRESSING
	.... .1..	IOBDYNBF	DYNAMIC BUFFERING
	.... ..1.	IOBRDEXC	READ EXCLUSIVE
	.... ...1	IOBRELBL	RELATIVE BLOCK ADDRESSING
+49	(31)	1 IOBDTYP2	SECOND BYTE OF OPTIONS AND REQUESTS
	1... ..	IOBSKEY	KEY ADDRESS CODED AS 'S'
	.1.. ..	IOBSBLKL	BLOCK LENGTH CODED AS 'S'
	..11 ....	IOBSUFFX	INDICATES TYPE OF SUFFIX('R' OR 'RU')
	.... 1...	IOBRQUST	BIT = 1 MEANS READ; BIT = 0 MEANS WRITE;
	.... .1..	IOBTYPE	BIT = 1 MEANS KEY TYPE BIT = 0 MEANS ID TYPE
	.... ..1.	IOBADDTY	ADD TYPE
	.... ...1	IOBRELEX	RELEX MACRO ISSUED
+50	(32)	2 IOBDSTAT	STATUS OF THE REQUEST
+50	(32)	1 IOBSTAT1	FLAG BYTE
	1... ..	IOBABNRM	ABNORMAL COMPLETION
	.1.. ..	IOBNEWVL	ON EXTENDED SEARCH,THE NEXT EXTENT IS ON A NEW VOLUME.THE ASI ROUTINE MUST ISSUE THE EXCP MACRO;END OF EXTENT APPENDAGE CANNOT.
	..1. ....	IOBRSV33	RESERVED
	...1 ....	IOBPASS2	ON EXTENDED SEARCH,INDICATES TO RELATIVE BLOCK CONVERSION ROUTINE THAT SECOND PASS OF A TWO-PASS CONV.ROUTINE HAS COMPLETED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	1...	IOBENQUE	RECORD ENQUEUED(EXCLUSIVE CONTROL REQUEST)
....	.1..	IOBBUFF	BUFFER ASSIGNED TO THIS IOB
....	..1.	IOBADDVU	V OR U TYPE RECORD BEING ADDED TO DATA SET
....	...1	IOBSIORT	INDICATES TO DYNAMIC BUFFERING ROUTINE THAT IT WAS ENTERED FROM,AND IS TO RETURN TO,THE START I/O APPENDAGE MODULE
+51	(33)	1 IOBSTAT2	ERROR CODE FOR ABNORMAL COMPLETION USED AS POST CODE IN ECB
+52	(34)	4 IOBDCPND	ADDRESS OF LOCATION WHERE CHANNEL END PROGRAM SHOULD END
+56	(38)	2 IOBDBYTN	NUMBER OF BYTES NEEDED ON A TRACK TO WRITE A NEW BLOCK
+58	(3A)	2 IOBRSV34	RESERVED
+60	(3C)	4 IOBDQPTR	PTR.TO IOB FOR NEXT I/O OPERATION TO EXECUTE
+64	(40)	8 IOBRSV35	RESERVED
+72	(48)	8 IOBDNCRF	COUNT FIELD FOR NEW BLOCK
+80	(50)	8 IOBCHNPR	CHANNEL PROGRAM
			NEW ACCESS METHOD EXTENSION -- 24 BYTES
+40	(28)	8 IOBSEEK2	SEEK FIELD 2
+40	(28)	1 IOBSK2M	EXTENT NUMBER
+41	(29)	2 IOBSK2BB	BIN NUMBER
+43	(2B)	2 IOBSK2CC	CYLINDER NUMBER
+45	(2D)	2 IOBSK2HH	HEAD NUMBER
+47	(2F)	1 IOBSK2R	RECORD NUMBER
+48	(30)	4 IOBBUFC	ADDRESS OF ASSOCIATED BUFFER CONTROL BLOCK
+52	(34)	4 IOBREADA	ADDRESS OF FIRST UNDONE READ CHANNEL PROGRAM SEGMENT
+56	(38)	4 IOBNEXTA	ADDRESS OF NEXT ACTIVE IOB
+60	(3C)	4 IOBRDCHP	ADDRESS OF READ CHANNEL PROGRAM

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
IOBABAPP	-16 X'04'	IOBDSTAT	+50 (32)	IOBRDCHP	+60 (3C)
IOBABNRM	+50 X'80'	IOBDTYPE	+48 (30)	IOBRDEXC	+48 X'02'
IOBACTAD	+48 X'08'	IOBDTYP2	+49 (31)	IOBRDHA0	+1 X'10'
IOBADDTY	+49 X'02'	IOBDYNBF	+48 X'04'	IOBREAD	-8 X'20'
IOBADDVU	+50 X'02'	IOBECBCC	+4 (4)	IOBREADA	+52 (34)
IOBALTTR	+1 X'08'	IOBECBPB	+5 (5)	IOBRELBL	+48 X'01'
IOBAPP	+46 (2E)	IOBECBPT	+4 (4)	IOBRELEX	+49 X'01'
IOBASYN	+47 (2F)	IOBENQUE	+50 X'08'	IOBREPOS	+24 (18)
IOBAVLFL	+36 X'80'	IOBERCCW	+40 (28)	IOBRESTR	+24 (18)
IOBBB	+33 (21)	IOBERINF	+48 (30)	IOBRFTMG	+28 X'02'
IOBBB1	+33 (21)	IOBERRCT	+30 (1E)	IOBRPSTN	+0 X'10'
IOBBB2	+34 (22)	IOBERRTN	+0 X'20'	IOBRQUST	+49 X'08'
IOBBCHAD	+52 (34)	IOBEXTEN	+32 (20)	IOBRSTCH	-16 X'02'
IOBBKSPC	-8 X'08'	IOBEXTSC	+48 X'20'	IOBRSTRB	+25 (19)
		IOBFCHAD	+48 (30)	IOBRSTRT	+0 X'01'
		IOBFCHNB	+49 (31)	IOBRSV01	-16 X'80'
		IOBFCREX	+0 X'08'	IOBRSV02	-16 X'40'
		IOBFDBCK	+48 X'10'	IOBRSV03	-16 X'20'
		IOBFIRST	-8 X'01'	IOBRSV04	-16 X'10'
IOBBTAMF	+28 (1C)	IOBFLAG1	+0 (0)	IOBRSV05	-15 (-F)
IOBBUFC	+48 (30)	IOBFLAG2	+1 (1)	IOBRSV06	-8 X'02'
IOBBUFF	+50 X'04'	IOBFLAG3	+8 (8)	IOBRSV07	-8 X'40'
IOBCC	+35 (23)	IOBGQECB	-4 (-4)	IOBRSV08	-8 X'20'
IOBCCW	+40 (28)	IOBHALT	+1 X'80'	IOBRSV09	-8 X'10'
IOBCCWAD	+40 (28)	IOBHH	+37 (25)	IOBRSV10	-8 X'08'
IOBCC1	+35 (23)	IOBHH1	+37 (25)	IOBRSV11	-8 X'04'
IOBCC2	+36 (24)	IOBHH2	+38 (26)	IOBRSV12	-8 X'02'
IOBCECB	-12 (-C)	IOBINCAM	+28 (1C)	IOBRSV13	-8 X'01'
IOBCFLG1	-16 (-10)	IOBINDCT	+44 (2C)	IOBRSV14	+28 X'20'
IOBCHNNL	+44 X'01'	IOBINUSE	+28 X'40'	IOBRSV15	+28 X'10'
IOBCHNPR	+80 (50)	IOBIOERR	+0 X'04'	IOBRSV16	+28 X'08'
IOBCICB	-8 (-8)	IOBKEYAD	+44 X'10'	IOBRSV17	+28 X'04'
IOBCINOP	-14 (-E)	IOBKNRWR	+45 X'08'	IOBRSV19	+29 (1D)
IOBCMDCH	+0 X'40'	IOBKNRW	+45 X'10'	IOBRSV20	+36 X'40'
IOBCNOPA	-4 (-4)	IOBM	+32 (20)	IOBRSV21	+36 X'20'
IOBCONOP	-13 (-D)	IOBNECB	-4 (-4)	IOBRSV22	+36 X'10'
IOBCOUNT	+48 (30)	IOBNEWVL	+50 X'40'	IOBRSV23	+36 X'08'
IOBCPA	+64 (40)	IOBNEXTA	+56 (38)	IOBRSV24	+36 X'04'
IOBCPBSY	+45 X'80'	IOBNFLG1	-8 (-8)	IOBRSV25	+36 X'02'
IOBCRDCC	+28 (1C)	IOBNIOBA	-8 (-8)	IOBRSV26	+36 X'01'
IOBCRILC	+29 (1D)	IOBNIOBB	-7 (-7)	IOBRSV27	+44 X'08'
IOBCSW	+9 (9)	IOBNTAV1	+45 X'40'	IOBRSV28	+44 X'04'
IOBCYCCK	+0 X'08'	IOBNTAV2	+45 X'20'	IOBRSV29	+44 X'02'
IOBDATCH	+0 X'80'	IOBNXTPB	+37 (25)	IOBRSV30	+45 X'04'
IOBDAYLI	+44 (2C)	IOBNXTPT	+36 (24)	IOBRSV31	+45 X'02'
IOBDYTN	+56 (38)	IOBOLTST	+28 X'01'	IOBRSV32	+45 X'01'
IOBDYTR	+40 (28)	IOBOVFLO	+48 X'40'	IOBRSV33	+50 X'20'
IOBDCBPB	+21 (15)	IOBOVPTR	+44 X'20'	IOBRSV34	+58 (3A)
IOBDCBPT	+20 (14)	IOBPASS2	+50 X'10'	IOBRSV35	+64 (40)
IOBDCPND	+52 (34)	IOBPCI	-16 X'01'	IOBRSV36	+20 (14)
IOBDEQ	-8 X'80'	IOBPNCB	+1 X'01'	IOBRSV37	+33 (21)
IOBDEQCP	+44 X'80'			IOBSBLKL	+49 X'40'
IOBDEQIN	-8 (8)	IOBPRMER	+28 X'80'	IOBSEEK	+32 (20)
IOBDIOBS	+42 (2A)	IOBPRTOV	-8 X'80'	IOBSEEK2	+40 (28)
IOBDNCRF	+72 (48)	IOBPTST	-16 X'08'	IOBSENSE	+1 X'40'
IOBDPLAD	+44 (2C)	IOBPURGE	+1 X'20'	IOBSENS0	+2 (2)
IOBDPLB	+45 (2D)			IOBSENS1	+3 (3)
IOBDQADA	-8 (-8)			IOBSIOCC	+16 (10)
IOBDQADB	-7 (-7)	IOBR	+39 (27)	IOBSIORT	+50 X'01'
IOBDQPTR	+60 (3C)	IOBRCVPT	+38 (26)	IOBSKEY	+49 X'80'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
IOBSKUPD	+1 X'04'				
IOBSK2BB	+41 (29)				
IOBSK2CC	+43 (2B)				
IOBSK2HH	+45 (2D)				
IOBSK2M	+40 (28)				
IOBSK2R	+47 (2F)				
IOBSNDPT	+39 (27)				
IOBSNSC9	+2 X'01'				
IOBSPAN	-8 X'04'				
IOBSTART	+16 (10)				
IOBSTATA	+36 (24)				
IOBSTATO	+1 X'02'				
IOBSTAT1	+50 (32)				
IOBSTAT2	+51 (33)				
IOBSTDRD	+0 (0)				
IOBSTRTB	+17 (11)				
IOBSUFFIX	+49 X'30'				
IOBSWAP	-4 (-4)				
IOBS0B0	+2 X'80'				
IOBS0B1	+2 X'40'				
IOBS0B2	+2 X'20'				
IOBS0B3	+2 X'10'				
IOBS0B4	+2 X'08'				
IOBS0B5	+2 X'04'				
IOBS0B6	+2 X'02'				
IOBS0B7	+2 X'01'				
IOBS1B0	+3 X'80'				
IOBS1B1	+3 X'40'				
IOBS1B2	+3 X'20'				
IOBS1B3	+3 X'10'				
IOBS1B4	+3 X'08'				
IOBS1B5	+3 X'04'				
IOBS1B6	+3 X'02'				
IOBS1B7	+3 X'01'				
IOBTYPE	+49 X'04'				
IOBUCBX	+32 (20)				
IOBUCBXG	+32 (20)				
IOBUNREL	+0 X'02'				
IOBUNSCH	+44 X'40'				
IOBUNSQR	+45 (2D)				
IOBUPDAT	-8 X'10'				
IOBVERFY	+48 X'80'				
IOBWORK	+33 (21)				
IOBWRITE	-8 X'40'				
W1IEXTEN	+40 (28)				
W1OEXTEN	+40 (28)				

END OF IOB





## **Job File Control Block**

A job file control block (JFCB) is constructed and written by the job management routines for each ddname specified in a job step. A JFCB is brought into virtual storage when a DCB with the corresponding ddname is opened. Information in a JFCB may be modified during the open process.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	8 JFCBQNAM	NAME OF THE DESTINATION QUEUE TO BE ASSIGNED TO THIS DATA SET.
0	(0)	44 JFCBDSNM	DATA SET NAME
44	(2C)	8 JFCBELNM	ELEMENT NAME OR GENERATION NUMBER OR TYPE OF AREA FOR AN INDEXED SEQUENTIAL DATA SET ONLY
44	(2C)	7 JFCIPLTX	MODULE NAME OF NETWORK CONTROL PROGRAM
51	(33)	1	LAST BYTE OF JFCBELNM
52	(34)	1 JFCBTSDM	JOB MANAGEMENT/DATA MANAGEMENT INTERFACE
		1... .. JFCCAT	CATALOGED DATA SET
		.1.. .... JFCVSL	VOLUME SERIAL LIST ALTERED
		..1. .... JFCSDS	SYSIN OR SYSOUT DATA SET
		...1 .... JFCTTR	USE JFCBOTTR INSTEAD OF DS1LSTAR FIELD TO REPOSITION DATA SET IF AUTOMATIC STEP RESTART OCCURS
		.... 1... JFCNWRIT	DO NOT WRITE BACK THE JFCB DURING OPEN PROCESSING
		.... .1.. JFCNDSCB	DO NOT MERGE DSCB OR LABEL FIELDS INTO THIS JFCB
		.... ..1. JFCNDCB	DO NOT MERGE DCB FIELDS INTO THIS JFCB
		.... ...1 JFCPAT	THE PATTERNING DSCB IS COMPLETE
53	(35)	3 JFCBDSCB	TTR OF FORMAT 1 DSCB FOR DATA SET PART ON THE FIRST VOLUME OF THE DATA SET
56	(38)	4 JFCFCBID	FORMS CONTROL BUFFER IMAGE IDENTIFICATION FOR THE 3211 OR DATA PROTECTION IMAGE IDENTIFICATION FOR THE 3525
56	(38)	2 JFCAMCRO	ACCESS METHOD CHECKPOINT/RESTART OPTION INDICATORS
58	(3A)	2 JFCAMSTR	NUMBER OF STRINGS
60	(3C)	2 JFCBADBF	NUMBER OF DATA BUFFERS
62	(3E)	2 JFCNLREC	LOGICAL RECORD LENGTH FOR NEW ACCESS METHOD
64	(40)	2 JFCRSV01	RESERVED
66	(42)	1 JFCBLTYP	LABEL TYPE
		1... .. JFCRSV38	RESERVED
		.1.. .... JFCBAL	USASI LABELS (AL OR AUL)
		..1. .... JFCBLTM	NON-LABELLED TAPE CREATED BY DOS MAY HAVE LEADING TAPE MARK. OPEN/CLOSE/EOV AND RESTART ARE TO SPACE OVER TAPE MARK IF IT EXISTS.
		...1 .... JFCBLP	BYPASS LABEL PROCESSING
		.... 1.1. JFCSUL	USER LABEL
		.... .1.. JFCNSL	NONSTANDARD LABEL
		.... ..1. JFCSL	STANDARD LABEL
		.... ...1 JFCNL	NO LABEL
67	(43)	3 JFCBOTTR	DASD MOD DATA SET - IF AUTOMATIC STEP RESTART WAS REQUESTED TTR OF EOD INDICATOR EXISTING WHEN DATA SET WAS FIRST OPENED DURING ORIGINAL EXECUTION
67	(43)	1 JFCBUFOF	BUFFER OFFSET
		1... .. JFCBFOFL	USASI/USASCII - BLOCK PREFIX IS 4 BYTES AND CONTAINS BLOCK LENGTH IN UNPACKED DECIMAL. SPECIFIED BY BUFOFF=L.
68	(44)	1 JFCFUNC	FUNCTION INDICATOR FOR THE 3525
		1... .. JFCFNCBI	INTERPRET (PUNCH AND PRINT TWO LINES)
		.1.. .... JFCFNCR	READ
		..1. .... JFCFNCRP	PUNCH

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	...1	JFCFNCBW	PRINT
	.... 1...	JFCFN CBD	DATA PROTECTION
	.... .1..	JFCFN CBX	THIS DATA SET IS TO BE PRINTED
	.... ..1.	JFCFN CBT	TWO-LINE PRINT SUPPORT REQUEST
	.... ...1	JFCRSV31	RESERVED
68	(44)	2 JFCBFLSQ	2ND & 3RD BYTES OF JFCBOTTR/ FILE SEQUENCE NUMBER
70	(46)	2 JFCBVLSQ	VOLUME SEQUENCE NUMBER
72	(48)	8 JFCB MASK	DATA MANAGEMENT MASK
72	(48)	5 JFCBOPS1	OPEN ROUTINE INTERNAL SWITCHES
	.... ...1	JFCBP TTR	MODEL DEPENDENT SUPPORT
77	(4D)	1 JFCBFLG1	FLAG BYTE
	1... ....	JFCSTAND	VOLUME LABEL PROCESSING STANDARD
	.1.. ....	JFCSLCRE	CREATION OF A STANDARD LABEL IS NECESSARY
	..1. ....	JFCSLDES	DESTRUCTION OF A STANDARD LABEL IS NECESSARY
	...1 ....	JFCDUAL	DUAL DENSITY CHECK DETECTED
	.... 1111	JFCOPEN	OPEN ROUTINE INTERNAL SWITCHES
78	(4E)	1 JFCBFLG2	FLAG BYTE OF OPEN SWITCHES
	1... ....	JFCINOP	TREAT THE INOUT OPTION OF OPEN AS INPUT
	.1.. ....	JFCOUTOP	TREAT THE OUTIN OPTION OF OPEN AS OUTPUT
	..1. ....	JFCDEFER	DATA SET RELATED TO THE JFCB IS BEING PROCESSED SEQUENTIALLY, AT THE CHECK- POINT, ON A DIFFERENT VOLUME THAN WHEN PROCESSING BEGAN - WHEN RESTART OCCURS, CAUSE DEFERRED VOLUME MOUNTING
	...1 ....	JFCMODNW	DISPOSITION CHANGED FROM MOD TO NEW - DISPOSITION (IN JFCBIND2) WILL BE RESTORED TO MOD AFTER OPEN
	.... 1...	JFCSDRPS	SEARCH DIRECT FOR RPS DEVICES
	.... .1..	JFCTRACE	GTF TRACE IS TO OCCUR DURING OPEN/CLOSE/ECV AND DYNAMIC ALLOCATION PROCESSING OF DCB
	.... ..1.	JFCBBUFF	INDICATOR TO OPEN THAT A NON-ZERO VALUE IN JFCBOTTR IS NOT TO PREVENT THE NORMAL STORING BY OPEN OF A TTR IN JFCBOTTR
	.... ...1	JFCRCTLG	SCHEDULER STEP TERMINATION ROUTINE IS TO RECATALOG THIS DATA SET AND PLACE IN THE CATALOG ENTRY THE DSCB TTR CONTAINED IN JFCBDSCB
79	(4F)	1 JFCBOPS2	OPEN ROUTINE INTERNAL SWITCHES
80	(50)	3 JFCBCRDT	DATA SET CREATION DATE (YDD)
83	(53)	3 JFCBXPDT	DATA SET EXPIRATION DATE (YDD)
86	(56)	1 JFCBIND1	INDICATOR BYTE 1
	11.. ....	JFCRLSE	RELEASE EXTERNAL STORAGE
	..11 ....	JFCLOC	DATA SET HAS BEEN LOCATED
	.... 11..	JFCADDED	NEW VOLUME HAS BEEN ADDED TO DATA SET
	.... ..1.	JFCGDG	DATA SET IS MEMBER OF A GENERATION DATA GROUP
	.... ...1	JFCPDS	DATA SET IS MEMBER OF A PARTITIONED DATA SET
87	(57)	1 JFCBIND2	INDICATOR BYTE 2
	11.. ....	JFCDISP	BIT PATTERN FOR NEW, MOD, OLD
	11.. ....	JFCNEW	NEW DATA SET
	1... ....	JFCMOD	MOD DATA SET
	.1.. ....	JFCOLD	OLD DATA SET
	..11 ....	JFCBRWPW	BITS 2&3 ALLOWS READ WITHOUT PASSWORD WITH DATA SET SECURITY
	...1 ....	JFCSECUR	DATA SET SECURITY
	.... 1...	JFCSHARE	SHARED DATA SET
	.... .1..	JFCENT	DATA SET IS GENERATION OF A GDG - PRO-

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			CESSING OF ENTIRE GDG WAS SPECIFIED - IF AUTOMATIC RESTART AT A CHECKPOINT OCCURS, JFCB WILL BE DELETED
	....	..1. JFCREQ	STORAGE VOLUME REQUESTED
	....	...1 JFCTEMP	TEMPORARY DATA SET
88	(58)	4 JFCAMPTR	POINTER TO AMPBLK FOR ADDITIONAL ACCESS METHOD PARAMETERS
88	(58)	1 JFCBUFNO	NUMBER OF BUFFERS REQUIRED FOR THIS DATA SET
88	(58)	1 JFCBUFRQ	NUMBER OF BUFFERS REQUIRED FOR EACH LINE (QTAM)*
89	(59)	1 JFCBHIAR	BUFFER POOL LOCATION IN MAIN STORAGE (HIERARCHY)*
89	(59)	1 JFCBFALN	BUFFER ALIGNMENT
89	(59)	1 JFCBFTEK	BUFFERING TECHNIQUE / FOR GAM THIS FIELD IS USED FOR THE NUMBER OF IOBS CONSTRUCTED BY THE OPEN ROUTINE - MAX NBR IS 99
	1...	.1.. JFCHIER	BITS 0 & 5 DESCRIBE MAIN STORAGE HIERARCHY BIT '00' = HIERARCHY 0 BIT '01' = HIERARCHY 1
	.1..	.... JFCSIM	SIMPLE BUFFERING
	...1	.... JFCExc	EXCHANGE BUFFERING
	....	1... JFCDYN	DYNAMIC BUFFERING
	....	.1.. JFCHIER1	HIERARCHY 1 MAIN STORAGE
	....	..1. JFCDWord	DOUBLE WORD BOUNDARY
	....	...1 JFCFWord	FULL WORD BOUNDARY - NOT DOUBLE WORD
90	(5A)	2 JFCBUFL	BUFFER LENGTH
92	(5C)	1 JFCEROPT	ERROR OPTION SWITCH
	1...	.... JFCACC	ACCEPT
	.1..	.... JFCskP	SKIP
	..1.	.... JFCABN	ABNORMAL END OF TASK
	...1	.... JFCtoPT	ON-LINE TERMINAL TEST (BTAM)
	....	1... JFCRSV02	RESERVED
	....	.1.. JFCRSV03	RESERVED
	....	..1. JFCRSV04	RESERVED
	....	...1 JFCRSV05	RESERVED
93	(5D)	1 JFCtrTCH	TAPE RECORDING TECHNIQUE FOR 7-TRACK TAPE
	..1.	..11 JFCeVEN	EVEN PARITY
	..11	1.11 JFCtrAN	BCB/EBCDIC TRANSLATION
	...1	..11 JFCcONV	DATA CONVERSION
	..1.	1.11 JFCtrEV	EVEN PARITY AND TRANSLATION
93	(5D)	1 JFCkEYLE	DIRECT ACCESS KEY LENGTH
93	(5D)	1 JFCcODE	CONVERSION CODE
	1...	.... JFCNOCON	NO CONVERSION
	.1..	.... JFCBCD	IBM BCD
	..1.	.... JFCFRi	FRIDEN
	...1	.... JFCBUR	BURROUGHS
	....	1... JFCNCR	NATIONAL CASH REGISTER
	....	.1.. JFCAScII	ASCII (8-TRACK)
	....	..1. JFCtTY	TELETYPE
	....	...1 JFCRSV32	RESERVED
93	(5D)	1 JFCMODe	MODE OF OPERATION
93	(5D)	1 JFCStACK	STACKER SELECTION
	1...	.... JFCBIN	COLUMN BINARY MODE
	.1..	.... JFCeBCD	EBCDIC MODE
	..1.	.... JFCMODeO	OPTICAL MARK READ MODE
	...1	.... JFCMODeR	READ COLUMN ELIMINATE MODE
	....	1... JFCRSV06	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	.1.. JFCRSV07	RESERVED
	....	..1. JFCTWO	STACKER TWO
	....	...1 JFCONE	STACKER ONE
93	(5D)	1 JFCPRTSP	NORMAL PRINTER SPACING
	...1	1..1 JFCSPTHR	SPACE THREE LINES
	...1	...1 JFCSP TWO	SPACE TWO LINES
	....	1..1 JFCSPONE	SPACE ONE LINE
	....	...1 JFCSPNO	NO SPACING
94	(5E)	1 JFCDEN	TAPE DENSITY - 2400/3400 SERIES MAGNETIC TAPES
	....	..11 JFC200	7-TRACK 200 BPI
	.1..	..11 JFC556	7-TRACK 556 BPI
	1...	..11 JFC800	7 AND 9 TRACK 800 BPI
	11..	..11 JFC1600	9-TRACK 1600 BPI
95	(5F)	3 JFCBABFS	TOTAL BUFFER SIZE FOR ALL ACCESS METHOD BUFFERS
95	(5F)	3 JFCLIMCT	SEARCH LIMIT (BDAM)
95	(5F)	1	1ST BYTE JFCLIMCT (BDAM)/RESERVED
96	(60)	2 JFCTRKBL	2ND & 3RD BYTES JFCLIMCT (BDAM)/ DATA SET OPENED FOR MOD - IF AUTOMATIC STEP RESTART WAS REQUESTED, TRACK BALANCE EXISTING WHEN THE DATA SET WAS FIRST OPENED DURING THE ORIGINAL EXECUTION OF THE CURRENT STEP
98	(62)	2 JFCDSORG	DATA SET ORGANIZATION BEING USED
98	(62)	1 JFCDSRG1	BYTE 1 OF JFCDSORG
	1...	.... JFCORGIS	INDEXED SEQUENTIAL
	.1..	.... JFCORGPS	PHYSICAL SEQUENTIAL
	..1.	.... JFCORGDA	DIRECT
	...1	.... JFCRSV08	RESERVED
	....	1... JFCRSV09	RESERVED
	....	.1.. JFCRSV10	RESERVED
	....	..1. JFCORGPO	PARTITIONED
	....	...1 JFCORGU	UNMOVABLE - THE DATA CONTAINS LOCATION DEPENDENT INFORMATION
99	(63)	1 JFCDSRG2	BYTE 2 OF JFCDSORG
	1...	.... JFCORGGS	GRAPHICS
	.1..	.... JFCRSV11	RESERVED
	..1.	.... JFCRSV12	RESERVED
	...1	.... JFCRSV13	RESERVED
	....	1... JFCORGAM	NEW ACCESS METHOD
	....	..1. JFCRSV14	RESERVED
	....	..1. JFCRSV15	RESERVED
	....	...1 JFCRSV16	RESERVED
100	(64)	1 JFCRECFM	RECORD FORMAT
	xx..	.... JFCFMREC	HIGH ORDER TWO BITS OF JFCRECFM TO BE TESTED
	11..	.... JFCUND	UNDEFINED
	1...	.... JFCFIX	FIXED
	.1..	.... JFCVAR	VARIABLE
	xxx.	.... JFCRCFM	RECORD FORMAT (USASI/USASCII)
	..1.	.... JFCVARD	VARIABLE (FORMAT D FOR USASI/USASCII)
	..1.	.... JFCRFO	TRACK OVERFLOW
	...1	.... JFCRFB	BLOCKED - (MAY NOT OCCUR WITH UNDEFINED)
	....	1... JFCRFS	STANDARD - NO TRUNCATED BLOCKS OR UNFILED BLOCKS ARE EMBEDDED IN THE DATA SET
	....	..11. JFCCHAR	BITS 5 & 6 OF JFCRECFM
101	(65)	1 JFCOPTCD	OPTION CODES
		QSAM - BSAM - BPAM	

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
1...	....	JFCWVCSP	WRITE VALIDITY CHECK
.1..	....	JFCALLOW	ALLOW A DATA CHECK CAUSED BY AN INVALID CHARACTER (1403 PRINTER WITH UCS)
..1.	....	JFCPCIBT	CHAINED SCHEDULING USING THE PROGRAM CONTROLLED INTERRUPTION
...1	....	JFCBCKPT	BYPASS EMBEDDED DOS CHECKPOINT RECORDS ON TAPE
....	1..	JFCRSV18	RESERVED
....	.1..	JFCREDUC	USE REDUCED ERROR RECOVERY PROCEDURE - (MAGNETIC TAPE)
....	.1..	JFCSRCHD	SEARCH DIRECT INSTEAD OF SEARCH PREVIOUS - (ROTATIONAL POSITION SENSING DEVICES)
....	..1.	JFCRSV21	RESERVED
....	...1	JFCRSV23	RESERVED
		BISAM - QISAM	
1...	....	JFCWVCIS	WRITE VALIDITY CHECK
.1..	....	JFCRSV17	RESERVED
..1.	....	JFCMAST	MASTER INDEXES
...1	....	JFCIND	INDEPENDENT OVERFLOW AREA
....	1..	JFCCYL	CYLINDER OVERFLOW AREA
....	.1..	JFCRSV19	RESERVED
....	..1.	JFCDEL	DELETE OPTION
....	...1	JFCREORG	REORGANIZATION CRITERIA
		BDAM	
1...	....	JFCWVCBD	WRITE VALIDITY CHECK
.1..	....	JFCOVER	TRACK OVERFLOW
..1.	....	JFCEXT	EXTENDED SEARCH
...1	....	JFCFEED	FEEDBACK
....	1..	JFCACT	ACTUAL ADDRESSING
....	.1..	JFCRSV20	RESERVED
....	..1.	JFCRSV22	RESERVED
....	...1	JFCREL	RELATIVE TRACK ADDRESSING
		USASI/USASCII	
....	1...	JFCOPTQ	EBCDIC TO OR FROM USASCII TRANSLATION REQUESTED
		TCAM	
1...	....	JFCSDNAM	SOURCE OR DESTINATION NAME PRECEDES MESSAGE (AFTER CONTROL BYTE)
.1..	....	JFCWUMSG	WORK UNIT IS A MESSAGE. DEFAULT WORK UNIT IS A RECORD.
..1.	....	JFCCBWU	CONTROL BYTE PRECEDES WORK UNIT
102	(66)	2 JFCBLKSI	MAXIMUM BLOCK SIZE
102	(66)	2 JFCBAXBF	NUMBER OF INDEX BUFFERS
104	(68)	8 JFCAMSYN	MODULE NAME FOR SYNAD ROUTINE FOR ACCESS METHOD
104	(68)	2 JFCLRECL	LOGICAL RECORD LENGTH
106	(6A)	1 JFCNCP	NUMBER OF CHANNEL PROGRAMS - NUMBER OF READ OR WRITE REQUESTS THAT MAY BE ISSUED PRIOR TO A CHECK - NUMBER OF IOBS GENERATED (MAXIMUM NUMBER IS 99) NOTE: GAM USES JFCBFTEK FOR THIS INFORMATION AND DOES NOT USE THIS FIELD AT ALL
107	(6B)	1 JFCNTM	NUMBER OF TRACKS THAT DETERMINE THE DEVELOPMENT OF A MASTER INDEX - MAXIMUM NUMBER IS 99
107	(6B)	1 JFCPCI	PCI FLAG BYTE
	1...	.... JFCPCIX1	PCI=(X,) RECEIVE OPERATIONS
	.1..	.... JFCPCIX2	PCI=(,X) SEND OPERATIONS X INDICATES THAT AFTER THE FIRST BUFFER IS FILLED (ON RECEIVE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			OPERATIONS) OR EMPTIED (ON SEND OPERATIONS), A PCI OCCURS DURING THE FILLING OR EMPTYING OF THE NEXT BUFFER. THE FIRST BUFFER REMAINS ALLOCATED AND ANOTHER IS ALLOCATED.
...1.	....	JFCPCIA1	PCI=(A,) RECEIVE OPERATIONS
...1	....	JFCPCIA2	PCI=(,A) SEND OPERATIONS A INDICATES THAT AFTER THE FIRST BUFFER IS FILLED (ON RECEIVE OPERATIONS) OR EMPTIED (ON SEND OPERATIONS), A PCI OCCURS DURING THE FILLING OR EMPTYING OF THE NEXT BUFFER. THE FIRST BUFFER IS DEALLOCATED. A BUFFER IS ALLOCATED IN PLACE OF THE DEALLOCATED BUFFER.
....	1...	JFCPCIN1	PCI=(N,) RECEIVE OPERATIONS
....	.1..	JFCPCIN2	PCI=(,N) SEND OPERATIONS N INDICATES THAT NO PCI'S ARE TAKEN DURING FILLING (ON RECEIVE OPERATIONS) OR EMPTYING (ON SEND OPERATIONS) OF BUFFERS. BUFFERS ARE DEALLOCATED AT THE END OF TRANSMISSION.
....	..1.	JFCPCIR1	PCI=(R,) RECEIVE OPERATIONS
....	...1	JFCPCIR2	PCI=(,R) SEND OPERATIONS R INDICATES THAT AFTER THE FIRST BUFFER IS FILLED (ON RECEIVE OPERATIONS) OR EMPTIED (ON SEND OPERATIONS), A PCI OCCURS DURING THE FILLING OR EMPTYING OF EACH SUCCEEDING BUFFER. THE COMPLETED BUFFER IS DEALLOCATED, BUT NO NEW BUFFER IS ALLOCATED TO TAKE ITS PLACE.
NORMAL 108 SEGMENT			
108	(6C)	2 JFCRKP	RELATIVE POSITION OF THE FIRST BYTE OF THE KEY WITHIN EACH LOGICAL RECORD - MAXIMUM VALUE IS LOGICAL RECORD LENGTH MINUS KEY LENGTH
110	(6E)	1 JFCCYLOF	NUMBER OF TRACKS TO BE RESERVED ON EACH CYLINDER TO HOLD RECORDS THAT OVERFLOW FROM OTHER TRACKS ON THAT CYLINDER - MAXIMUM VALUE IS 99
111	(6F)	1 JFCDBUFN	RESERVED
112	(70)	1 JFCINTVL	INTENTIONAL DELAY, IN SECONDS, BETWEEN PASSES THROUGH A POLLING LIST (QTAM)*
108 PRINTER SEGMENT			
108	(6C)	4 JFCUCSID	NAME OF THE UCS IMAGE TO BE LOADED
112	(70)	1 JFCUCSOP	OPERATION OF THE UCS IMAGE TO BE LOADED
	1...	.... JFCRSV24	RESERVED
	.1..	.... JFCFOLD	UCS IMAGE TO BE LOADED IN THE FOLD MODE
	..1.	.... JFCRSV25	RESERVED
	...1	.... JFCVER	UCS IMAGE TO BE VERIFIED
	....	1... JFCFCBAL	FCB ALIGN
	....	.1.. JFCFCBVR	FCB VERIFY
	....	..1. JFCRSV26	RESERVED
	....	...1 JFCRSV27	RESERVED
END OF 108 PRINTER SEGMENT			
113	(71)	1 JFCCPRI	PRIORITY BETWEEN SEND AND RECEIVE OPERATIONS (QTAM)*
	1...	.... JFCSEND	SEND PRIORITY
	.1..	.... JFCEQUAL	EQUAL PRIORITY
	..1.	.... JFCRECV	RECEIVE PRIORITY
	...1	.... JFCRSV33	RESERVED
	....	1... JFCRSV34	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	.1.. JFCRSV35	RESERVED
	....	..1. JFCRSV36	RESERVED
	....	...1 JFCRSV37	RESERVED
114	(72)	2 JFCSOWA	LENGTH, IN BYTES, OF THE USER PROVIDED WORK AREA (QTAM)*
116	(74)	1 JFCBNTCS	NUMBER OF OVERFLOW TRACKS
117	(75)	1 JFCBNVOL	NUMBER OF VOLUME SERIAL NUMBERS
118	(76)	30 JFCBVOLS	THE FIRST FIVE VOLUME SERIAL NUMBERS
148	(94)	1 JFCBEXTL	LENGTH OF BLOCK OF EXTRA VOLUME SERIAL NUMBERS (BEYOND FIVE)
149	(95)	3 JFCBEXAD	RELATIVE TRACK ADDRESS (TTR) OF FIRST JFCB EXTENSION BLOCK
152	(98)	3 JFCBPQTY	PRIMARY QUANTITY OF DIRECT ACCESS STORAGE REQUIRED
152	(98)	3 JFCRUNIT	UNIT TYPE IN EBCDIC CHARACTERS OF A DEVICE AT A REMOTE TERMINAL. THE FIRST 2 CHARACTERS ARE RD (READER), PR (PRINTER) OR PU (PUNCH). THE THIRD CHARACTER IS A NUMBER FROM 1 TO 9.
155	(9B)	1 JFCBCTRI	SPACE PARAMETERS
	xx..	.... JFCBSPAC	BIT PATTERN FOR SPACE REQUESTS
	00..	.... JFCBABS	'ABSTR' REQUEST
	01..	.... JFCBAVR	AVERAGE BLOCK LENGTH REQUEST
	10..	.... JFCBTRK	'TRK' REQUEST
	11..	.... JFCBCYL	'CYL' REQUEST
	..1.	.... JFCRSV28	RESERVED
	...1	.... JFCRSV29	RESERVED
	....	1... JFCCONTIG	'CONTIG' REQUEST
	....	.1.. JFCMIXG	'MXIG' REQUEST
	....	..1. JFCALX	'ALX' REQUEST
	....	...1 JFCROUND	'ROUND' REQUEST
156	(9C)	3 JFCBSQTY	SECONDARY QUANTITY OF DIRECT ACCESS STORAGE REQUIRED
156	(9C)	2 JFCRQID	QID USED BY ACCESS METHOD TO DETERMINE THE REMOTE TERMINAL LOCATION FOR THIS JOB.
158	(9E)	1	THIRD BYTE OF JFCBSQTY
159	(9F)	1 JFCFLGS1	FLAG BYTE
	1...	.... JFCRSV39	RESERVED
	.1..	.... JFCRSV40	RESERVED
	..1.	.... JFCRSV41	RESERVED
	...1	.... JFCRSV42	RESERVED
	....	1... JFCRSV43	RESERVED
	....	.1.. JFCRSV44	RESERVED
	....	..1. JFCRSV45	RESERVED
	....	...1 JFCBUAFF	UNIT AFFINITY SPECIFIED FOR THIS DATA SET
160	(A0)	3 JFCBDQTY	QUANTITY OF DIRECT ACCESS STORAGE REQUIRED FOR A DIRECTORY OR AN EMBEDDED INDEX AREA
163	(A3)	3 JFCBSPNM	ADDRESS OF THE JFCB WITH WHICH CYLINDERS ARE SPLIT
166	(A6)	2 JFCBABST	RELATIVE ADDRESS OF FIRST TRACK TO BE ALLOCATED
168	(A8)	3 JFCBSBNM	ADDRESS OF THE JFCB FROM WHICH SPACE IS TO BE SUBALLOCATED



<u>OFFSET</u>		<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
171	(AB)	3	JFCBDR LH	AVERAGE DATA BLOCK LENGTH
174	(AE)	1	JFCBVLCT	VOLUME COUNT
175	(AF)	1	JFCBSPTN	NUMBER OF TRACKS PER CYLINDER TO BE USED BY THIS DATA SET WHEN SPLIT CYLINDER IS INDICATED

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	51 (33)	JFCBPMEM	86 X'01'	JFCFMREC	100 X'C0'
	95 (5F)	JFCBPQTY	152 (98)	JFCFN CBD	68 X'08'
	158 (9E)	JFCBPTTR	72 X'01'	JFCFN CBI	68 X'80'
JFCABN	92 X'20'	JFCBQNAM	0 (0)	JFCFN CBP	68 X'20'
JFCACC	92 X'80'	JFCBRLSE	86 X'40'	JFCFN CBR	68 X'40'
JFCACT	101 X'08'	JFCBRWPW	87 X'30'	JFCFN CBT	68 X'02'
JFCADDED	86 X'0C'	JFCBSBNM	168 (A8)	JFCFN CBW	68 X'10'
JFCALLOW	101 X'40'	JFCBSCTY	87 X'10'	JFCFN CBX	68 X'04'
JFCALX	155 X'02'	JFCBSPAC	155 X'C0'	JFCFOLD	112 X'40'
JFCAMCRO	56 (38)	JFCBSPNM	163 (A3)	JFCFRI	93 X'20'
JFCAMPTR	88 (58)	JFCBSPTN	175 (AF)	JFCFUNC	68 (44)
JFCAMSTR	58 (3A)	JFCBSQTY	156 (9C)	JFCFWORD	89 X'01'
JFCAMSYN	104 (68)	JFCBSTAT	87 X'40'	JFCGDG	86 X'02'
JFCASA	100 X'04'	JFCBTRK	155 X'80'	JFCHIER	89 X'84'
JFCASCI I	93 X'04'	JFCBTSDM	52 (34)	JFCHIER1	89 X'04'
JFCBABFS	95 (5F)	JFCBUAFF	159 X'01'	JFCIND	101 X'10'
JFCBABS	155 X'00'	JFCBUFIN	*A* JFCBUFNO	JFCINOP	78 X'80'
JFCBABST	166 (A6)	JFCBUFL	90 (5A)	JFCINTVL	112 (70)
JFCBADBF	60 (3C)	JFCBUFMX	*A* JFCNCP	JFCIPLTX	44 (2C)
JFCBAL	66 X'40'	JFCBUFNO	88 (58)	JFCKEYLE	93 (5D)
JFCBAVR	155 X'40'	JFCBUFOF	67 (43)	JFCLIMCT	95 (5F)
JFCBAXBF	102 (66)	JFCBUFRQ	88 (58)	JFCLOC	86 X'30'
JFCBUBFF	78 X'02'	JFCBUFSI	*A* JFCBLKSI	JFCLRECL	104 (68)
JFCBCD	93 X'40'	JFCBUR	93 X'10'	JFCMAC	100 X'02'
JFCBCKPT	101 X'10'	JFCBVLCT	174 (AE)	JFCMAST	101 X'20'
JFCBCRDT	80 (50)	JFCBVLSQ	70 (46)	JFCMIXG	155 X'04'
JFCBCTRI	155 (9B)	JFCBVOLS	118 (76)	JFCMOD	87 X'80'
JFCBCYL	155 X'C0'	JFCBXPDT	83 (53)	JFCMODE	93 (5D)
JFCBDQTY	160 (A0)	JFCCAT	52 X'80'	JFCMODEO	93 X'20'
JFCBDR LH	171 (AB)	JFCCBWU	101 X'20'	JFCMODER	93 X'10'
JFCBDSCB	53 (35)	JFCCHAR	100 X'06'	JFCMODNW	78 X'10'
JFCBDSNM	0 (0)	JFCCODE	93 (5D)	JFCNCP	106 (6A)
JFCBELNM	44 (2C)	JFCCONV	93 X'13'	JFCNCR	93 X'08'
JFCBEXAD	149 (95)	JFCCPRI	113 (71)	JFCNDCB	52 X'02'
JFCBEXTL	148 (94)	JFCCYL	101 X'08'	JFCNDS CB	52 X'04'
JFCBFALN	89 (59)	JFCCYLOF	110 (6E)	JFCNEW	87 X'C0'
JFCBFLG1	77 (4D)	JFCDBUFN	111 (6F)	JFCNL	66 X'01'
JFCBFLG2	78 (4E)	JFCDEFER	78 X'20'	JFCNLREC	62 (3E)
JFCBFLSQ	68 (44)	JFCDEL	101 X'02'	JFCNOCC	100 X'00'
JFCBFOFL	67 X'80'	JFCDEN	94 (5E)	JFCNOCON	93 X'80'
JFCBFOUT	*A* JFCBUFNO	JFCDISP	87 X'C0'	JFCNSL	66 X'04'
JFCBFTEK	89 (59)	JFCDSORG	98 (62)	JFCNTM	107 (6B)
JFCBGDGA	87 X'04'	JFCDSRG1	98 (62)	JFCNWRIT	52 X'08'
JFCBHIAR	89 (59)	JFCDSRG2	99 (63)	JFCOLD	87 X'40'
JFCBIN	93 X'80'	JFCDUAL	77 X'10'	JFCONE	93 X'01'
JFCBIND1	86 (56)	JFCDWORD	89 X'02'	JFCONTIG	155 X'08'
JFCBIND2	87 (57)	JFCDYN	89 X'08'	JFCOPEN	77 X'0F'
JFCBLGTH	175 X'B0'	JFCBCD	93 X'40'	JFCOPTCD	101 (65)
JFCBLKSI	102 (66)	JFCENT	87 X'04'	JFCOPTQ	101 X'08'
JFCBLOCT	86 X'10'	JFCEQUAL	113 X'40'	JFCORGAM	99 X'08'
JFCBLP	66 X'10'	JFCEROPT	92 (5C)	JFCORGDA	98 X'20'
JFCBLTM	66 X'20'	JFCEVEN	93 X'23'	JFCORGGS	99 X'80'
JFCBLTYP	66 (42)	JFCEXC	89 X'10'	JFCORGIS	98 X'80'
JFCBMA SK	72 (48)	JFCEXT	101 X'20'	JFCORGPO	98 X'02'
JFCBNEWV	86 X'04'	JFCFCBAL	112 X'08'	JFCORGPS	98 X'40'
JFCBNTCS	116 (74)	JFCFCBID	56 (38)	JFCORGU	98 X'01'
JFCBNVOL	117 (75)	JFCFCBVR	112 X'04'	JFCOUTLI	*A* JFCCPRI
JFCBOPS1	72 (48)	JFCFEED	101 X'10'	JFCOUTOP	78 X'40'
JFCBOPS2	79 (4F)	JFCFIX	100 X'80'	JFCOVER	101 X'40'
JFCBOTTR	67 (43)	JFCFLGS1	159 (9F)	JFCPAT	52 X'01'

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
JFCPCI	107 (6B)	JFCRSV34	113 X'08'		
JFCPCIA1	107 X'20'	JFCRSV35	113 X'04'		
JFCPCIA2	107 X'10'	JFCRSV36	113 X'02'		
JFCPCIBT	101 X'20'	JFCRSV37	113 X'01'		
JFCPCIN1	107 X'08'	JFCRSV38	66 X'80'		
JFCPCIN2	107 X'04'	JFCRSV39	159 X'80'		
JFCPCIR1	107 X'02'	JFCRSV40	159 X'40'		
JFCPCIR2	107 X'01'	JFCRSV41	159 X'20'		
JFCPCIX1	107 X'80'	JFCRSV42	159 X'10'		
JFCPCIX2	107 X'40'	JFCRSV43	159 X'08'		
JFCPDS	86 X'01'	JFCRSV44	159 X'04'		
JFCPRTSP	93 (5D)	JFCRSV45	159 X'02'		
JFCRCFM	100 X'E0'	JFCRUNIT	152 (98)		
JFCRCTLG	78 X'01'	JFCSDNAM	101 X'80'		
JFCRECFM	100 (64)	JFCSDRPS	78 X'08'		
JFCRECV	113 X'20'	JFCSDS	52 X'20'		
JFCREDUC	101 X'04'	JFCSECUR	87 X'10'		
JFCREL	101 X'01'	JFCSEND	113 X'80'		
JFCREORG	101 X'01'	JFCSHARE	87 X'08'		
JFCREQ	87 X'02'	JFCSIM	89 X'40'		
JFCRESRV	*A* JFCRKP	JFCSKP	92 X'40'		
JFCRFB	100 X'10'	JFCSL	66 X'02'		
JFCRFO	100 X'20'	JFCSLCRE	77 X'40'		
JFCRFS	100 X'08'	JFCSLDES	77 X'20'		
JFCRKP	108 (6C)	JFCSOWA	114 (72)		
JFCRLSE	86 X'C0'	JFCSPNO	93 X'01'		
JFCROUND	155 X'01'	JFCSPONE	93 X'09'		
JFCRQID	156 (9C)	JFCSPTHR	93 X'19'		
JFCRSV01	64 (40)	JFCSP TWO	93 X'11'		
JFCRSV02	92 X'08'	JFCSRCHD	101 X'04'		
JFCRSV03	92 X'04'	JFCSTACK	93 (5D)		
JFCRSV04	92 X'02'	JFCSTAND	77 X'80'		
JFCRSV05	92 X'01'	JFCSUL	66 X'0A'		
JFCRSV06	93 X'08'	JFCTEMP	87 X'01'		
JFCRSV07	93 X'04'	JFCTHRSH	*A* JFCCPRI		
JFCRSV08	98 X'10'	JFCTOPT	92 X'10'		
JFCRSV09	98 X'08'	JFCTRACE	78 X'04'		
JFCRSV10	98 X'04'	JFCTRAN	93 X'3B'		
JFCRSV11	99 X'40'	JFCTREV	93 X'2B'		
JFCRSV12	99 X'20'	JFCTRKBL	96 (60)		
JFCRSV13	99 X'10'	JFCTRTCH	93 (5D)		
JFCRSV14	99 X'04'	JFCTTR	52 X'10'		
JFCRSV15	99 X'02'	JFCTTY	93 X'02'		
JFCRSV16	99 X'01'	JFCTWO	93 X'02'		
JFCRSV17	101 X'40'	JFCUCSID	108 (6C)		
JFCRSV18	101 X'08'	JFCUCSOP	112 (70)		
JFCRSV19	101 X'04'	JFCUND	100 X'C0'		
JFCRSV20	101 X'04'	JFCVAR	100 X'40'		
JFCRSV21	101 X'02'	JFCVARD	100 X'20'		
JFCRSV22	101 X'02'	JFCVER	112 X'10'		
JFCRSV23	101 X'01'	JFCVSL	52 X'40'		
JFCRSV24	112 X'80'	JFCWUMSG	101 X'40'		
JFCRSV25	112 X'20'	JFCWVCBD	101 X'80'		
JFCRSV26	112 X'02'	JFCWVCIS	101 X'80'		
JFCRSV27	112 X'01'	JFCWVCSP	101 X'80'		
JFCRSV28	155 X'20'	JFC1600	94 X'C3'		
JFCRSV29	155 X'10'	JFC200	94 X'03'		
JFCRSV31	68 X'01'	JFC556	94 X'43'		
JFCRSV32	93 X'01'	JFC800	94 X'83'		
JFCRSV33	113 X'10'				

END OF JFCB



## **Job File Control Block Extension**

Job file control block extension blocks are used to record volume serial numbers in excess of the five recorded in the JFCBVOLS field of the JFCB. Each extension block is 176 bytes in length.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	3 JFCBXTTR	DIRECT ACCESS ADDRESS FOR NEXT EXTENSION BLOCK
3	(3)	1	RESERVED
4	(4)	90 JFCBXVOL	UP TO 15 SIX-BYTE VOLUME SERIAL NUMBERS
94	(5E)	82	RESERVED

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
	3 (3)
	94 (5E)
JFCBXTTR	0 (0)
JFCBXVOL	4 (4)

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
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<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
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END OF JFCB EXTENSION





## **Job Step Control Block**

The job step control block (JSCB) contains step-related information that remains unchanged throughout the performance of all tasks required to complete a job step. Therefore, the JSCB is step dependent rather than task dependent. Since all tasks in a job step can use this common pool of information, the JSCB makes it unnecessary to store this information within each task control block created during the execution of the job step.

The address of the JSCB is in the TCBJSCB field of each task control block created during the completion of the job step.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
188	(BC)	4 JSCRSV01	RESERVED
192	(C0)	4 JSCHPCE	ADDRESS OF OPTIONAL JOB ENTRY SYSTEM PROCESSOR CONTROL ELEMENT
192	(C0)	1 JSCRSV32	RESERVED
193	(C1)	3 JSCHPCEA	SAME AS JSCHPCE ABOVE
196	(C4)	4 JSCBSHR	ADDRESS OF AMBL CHAIN
200	(C8)	4 JSCBTCP	ADDRESS OF TIOT CHAINING ELEMENT CHAIN
204	(CC)	4 JSCBPCC	ADDRESS OF PRIVATE CATALOG CONTROL BLOCK CHAIN
208	(D0)	4 JSCBTCBP	ADDRESS OF INITIATOR'S TCB
212	(D4)	4 JSCBIJSC	ADDRESS OF JSCB OF THE INITIATOR WHICH ATTACHED THIS JOB STEP
216	(D8)	4 JSCBDBTB	ADDRESS OF THE DEB TABLE
220	(DC)	4 JSCBID	JOB SERIAL NUMBER
224	(E0)	4 JSCBDCB	ADDRESS OF DCB FOR DATA SET CONTAINING SCHEDULER TABLES FOR THIS JOB
224	(E0)	1 JSCRSV02	RESERVED
225	(E1)	3 JSCBDCBA	SAME AS JSCBDCB ABOVE
228	(E4)	1 JSCBSTEP	CURRENT STEP NUMBER. CONTAINS 1 FOR FIRST STEP
229	(E5)	3 JSCRSV03	RESERVED
232	(E8)	4 JSCBSECB	ECB FOR COMMUNICATION BETWEEN MAIN STORAGE SUPERVISOR AND INITIATOR
236	(EC)	1 JSCBOPTS	FLAG BYTE
	1... ..	JSCRSV04	RESERVED
	.1.. ..	JSCRSV05	RESERVED
	..1. ....	JSCBLONG	FAIL REDEFINE BECAUSE OF LONG RUNNING TASK (VS1)
	...1 ....	JSCRSV06	RESERVED
	.... 1...	JSCRSV07	RESERVED
	.... .1..	JSCRSV08	RESERVED
	.... ..1.	JSCRSV09	RESERVED
	.... ...1	JSCBAUTH	THE STEP REPRESENTED BY THIS JSCB IS AUTHORIZED TO ISSUE THE MODESET MACRO
237	(ED)	3 JSCRSV10	RESERVED
240	(F0)	3 JSCBTTR	JOB Q ADDRESS (TTR) OF TIOT EXTENSION (VS2)
243	(F3)	1 JSCBSWT1	STATUS SWITCHES (VS2)
	1... ..	JSCBPASS	WHEN THIS BIT IS SET TO ONE AND A CORRESPONDING BIT IN THE DCB IS SET TO ONE, OPEN WILL BYPASS PASSWORD PROTECTION FOR THE DATA SET BEING OPENED (VS2)
	.1.. ....	JSCRSV11	RESERVED
	..1. ....	JSCRSV12	RESERVED
	...1 ....	JSCRSV13	RESERVED
	.... 1...	JSCRSV14	RESERVED
	.... .1..	JSCRSV15	RESERVED
	.... ..1.	JSCRSV16	RESERVED
	.... ...1	JSCBPMMSG	A MESSAGE HAS BEEN ISSUED BECAUSE THE DUMP DATA SET WAS NOT SUCCESSFULLY OPENED. PREVENTS USE OF MULTIPLE SMB'S FOR MULTIPLE OPEN FAILURES IN JOB STEP. (VS2)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
244	(F4)	4 JSCBQMPI	RESERVED
248	(F8)	4 JSCBQMPO	ADDRESS OF THE QMPA FOR THE JOB'S OUTPUT MSGCLASS QUEUE ENTRY (VS2)
252	(FC)	4 JSCBWTP	WRITE-TO-PROGRAMMER DATA
252	(FC)	1 JSCBWTFG	FLAGS FOR WTP FUNCTION
	1...	.... JSCBIOFG	PREVIOUS WTP I/O HAD I/O ERROR
	.1..	.... JSCRSV17	RESERVED
	..1.	.... JSCRSV18	RESERVED
	...1	.... JSCRSV19	RESERVED
	....	1... JSCRSV20	RESERVED
	....	.1.. JSCRSV21	RESERVED
	....	..1. JSCRSV22	RESERVED
	....	...1 JSCRSV23	RESERVED
253	(FD)	1 JSCBWTSP	NUMBER OF LAST STEP TO USE WTP
254	(FE)	2 JSCBPMG	NUMBER OF WTP'S FOR STEP
256	(100)	4 JSCBCSCB	ADDRESS OF CSCB USED FOR PROCESSING COMMANDS RECEIVED FOR JOB
260	(104)	4 JSCBJCT	SAME AS JSCBJCTA BELOW
260	(104)	1 JSCRSV24	RESERVED
261	(105)	3 JSCBJCTA	TTR OF JOB'S JCT
264	(108)	4 JSCBPSCB	ADDRESS OF TSO PROTECTED STEP CONTROL BLOCK
268	(10C)	2 JSCBTJID	TSO TERMINAL JOB IDENTIFIER
270	(10E)	2 JSCRSV25	RESERVED
272	(110)	4 JSCBIECB	ECB USED FOR COMMUNICATION BETWEEN DYNAMIC ALLOCATION AND THE INITIATOR IN ORDER TO PERFORM DATA SET INTEGRITY
276	(114)	4 JSCRSV26	RESERVED
280	(118)	4 JSCRSV27	RESERVED
284	(11C)	4 JSCBSWAB	RESERVED
288	(120)	4 JSCBJNL	SAME AS JSCBJNLA BELOW
288	(120)	1 JSCBJJSB	JOB JOURNAL STATUS INDICATORS*
	1...	.... JSCBJNLN	NOTHING SHOULD BE WRITTEN IN JOURNAL
	.1..	.... JSCBJNLF	LIMIT SIZE OF JOURNAL REACHED
	..1.	.... JSCBJNLE	ERROR IN JOURNAL, DO NOT WRITE
	...1	.... JSCBJSBJ	MODULE XEFXB500 TO PROCESS 'AFTER ALLOCATION'
	....	1... JSCBJSBI	JOB HAS NOT ENTERED ALLOCATION FOR THE FIRST TIME
	....	.1.. JSCBJSBA	JOB HAS ENTERED ALLOCATION
	....	..1. JSCBJSBX	JOB HAS COMPLETED ALLOCATION
	....	...1 JSCBJSBT	JOB HAS ENTERED TERMINATION
289	(121)	3 JSCBJNLA	INITIATOR JSCB ONLY - ADDRESS OF JSCB FOR STEP BEING INITIATED. OTHERWISE, ZERO
292	(124)	4 JSCBJNLR	POINTER TO LRCB IN LSQA
296	(128)	4 JSCBSMLR	ADDRESS OF LRCB FOR SYSTEM MESSAGE DATA SET FOR THIS STEP
300	(12C)	4 JSCBSUB	SAME AS JSCBSUBA BELOW
300	(12C)	1 JSCRSV31	RESERVED
301	(12D)	3 JSCBSUBA	ADDRESS OF JES-SUBTL FOR THIS JOB STEP
304	(130)	2 JSCBSONO	THE NUMBER OF SYSOUT DATA SETS PLUS ONE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
306 (132)	2	JSCRSV28	RESERVED
308 (134)	4	JSCRSV29	RESERVED
312 (138)	4	JSCRSV30	RESERVED

END OF JSCB

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
JSCBAUTH	236 X'01'	JSCRSV11	243 X'40'		
JSCBCSCB	256 (100)	JSCRSV12	243 X'20'		
JSCBDBTB	216 (D8)	JSCRSV13	243 X'10'		
JSCBDCB	224 (E0)	JSCRSV14	243 X'08'		
JSCBDCBA	225 (E1)	JSCRSV15	243 X'04'		
JSCBID	220 (DC)	JSCRSV16	243 X'02'		
JSCBIECB	272 (110)	JSCRSV17	252 X'40'		
JSCBIJSC	212 (D4)	JSCRSV18	252 X'20'		
JSCBIOFG	252 X'80'	JSCRSV19	252 X'10'		
JSCBJCT	260 (104)	JSCRSV20	252 X'08'		
JSCBJCTA	261 (105)	JSCRSV21	252 X'04'		
JSCBJJSB	288 (120)	JSCRSV22	252 X'02'		
JSCBJNL	288 (120)	JSCRSV23	252 X'01'		
JSCBJNLA	289 (121)	JSCRSV24	260 (104)		
JSCBJNLE	288 X'20'	JSCRSV25	270 (10E)		
JSCBJNLF	288 X'40'	JSCRSV26	276 (114)		
JSCBJNLN	288 X'80'	JSCRSV27	280 (118)		
JSCBJNLR	292 (124)	JSCRSV28	306 (132)		
JSCBJSBA	288 X'04'	JSCRSV29	308 (134)		
JSCBJSBI	288 X'08'	JSCRSV30	312 (138)		
JSCBJSBJ	288 X'10'	JSCRSV31	300 (12C)		
JSCBJSBT	288 X'01'	JSCRSV32	192 (C0)		
JSCBJSBX	288 X'02'				
JSCBLONG	236 X'20'				
JSCBOPTS	236 (EC)				
JSCBPASS	243 X'80'				
JSCBPCC	204 (CC)				
JSCBPMG	254 (FE)				
JSCBPMSG	243 X'01'				
JSCBPSCB	264 (108)				
JSCBQMPI	244 (F4)				
JSCBQMPO	248 (F8)				
JSCBSECB	232 (E8)				
JSCBSHR	196 (C4)				
JSCBSMLR	296 (128)				
JSCBSONO	304 (130)				
JSCBSTEP	228 (E4)				
JSCBSUB	300 (12C)				
JSCBSUBA	301 (12D)				
JSCBSWAB	284 (11C)				
JSCBSWT1	243 (F3)				
JSCBTCBP	208 (D0)				
JSCBTCP	200 (C8)				
JSCBTJID	268 (10C)				
JSCBTTTR	240 (F0)				
JSCBWTFG	252 (FC)				
JSCBWTP	252 (FC)				
JSCBWTSP	253 (FD)				
JSCHPCE	192 (C0)				
JSCHPCEA	193 (C1)				
JSCRSV01	188 (BC)				
JSCRSV02	224 (E0)				
JSCRSV03	229 (E5)				
JSCRSV04	236 X'80'				
JSCRSV05	236 X'40'				
JSCRSV06	236 X'10'				
JSCRSV07	236 X'08'				
JSCRSV08	236 X'04'				
JSCRSV09	236 X'02'				
JSCRSV10	237 (ED)				

END OF JSCB



## Line Control Block -- TCAM

The line control block(LCB) for TCAM is a fixed length table containing information that must be maintained on a line or line group basis. There is one line control block for each line in a line group. All LCBs for a line group are contiguous in storage. The LCB contains the following information:

- The address of the QCB to which recalled buffers are to be posted.
- Pointers to the channel program and the corresponding DCB.
- The last PCI serviced.
- The chain of waiting QCBs.

It also contains the buffer status, the subtask chain, and the I/O status.

When the LCB is functioning as a QCB, the LCB contains the address of the first subtask control block (STCB). At LCB + 76 (4C) is the element control block. The IOB is at LCB + 32 (20).

The address of the LCB can be found by subtracting 32 (hex 20) from the address of the IOB found in the DCBIOBAD field of the data control block and using the relative line number as an index. The length of the LCB is located in the DCBEIOBX field of the DCB.

Storage is allocated and fixed and the LCB is initialized when the line group is opened.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	8 LCBRCB	RESOURCE CONTROL BLOCK
0	(0)	1 LCBKEY	ELEMENT KEY OF BUFFER
1	(1)	3 LCBQCBA	QCB ADDRESS
4	(4)	1 LCBPRI	PRIORITY OF BUFFER
5	(5)	3 LCBLINK	LINK FIELD OF BUFFER
8	(8)	1 LCBRSKEY	RECEIVE SCHEDULER KEY
9	(9)	3 LCBSTCBA	ADDRESS OF FIRST STCB WHEN LCB IS A QCB.
12	(C)	1 LCBRSPRI	RECEIVE SCHEDULER PRIORITY
13	(D)	3 LCBRSLNK	ADDR NEXT ITEM IN CHAIN
16	(10)	2 LCBEOLTD	END OF INVITATION-LIST TIME DELAY
18	(12)	1 LCBTDL	TIME DELAY QUEUE OFFSET TO QCB ADDRESS. FOR LCB = X'14'
19	(13)	1 LCBTSOB	TSO STATUS BITS
	1... ..	LCBWRBRK	WRITE BREAK IN PROGRESS
	.1.. ..	LCBTSBUF	BUFFER HAS TS PREFIX
	..1. ....	LCBSATRD	SIMULATED ATTN READ REQUEST
	...1 ....	LCBSOPL	START OF POLLING LIST
	.... 1...	LCBPREP	PREPARE ON LINE
	.... .1..	LCBCIRCD	CIRCLE D SENT TO 2741
	.... ..1.	LCBINHBN	USE INHIBITS FOR THIS TERM
	.... ...1	LCB2741N	2741 ON THIS LINE
20	(14)	1 LCBCHAIN	DISPOSITION STATUS BITS
	1... ..	LCBSCRNN	SCREEN CHANGE REQUESTED
	.111 1111	LCBSCRNF	NO SCREEN CHANGE REQUESTED
	.1.. ....	LCBEXCP	DELAY EXCP TILL BUFFER ASSOCIATION
	..1. ....	LCBERMSG	ERP MESSAGE WAITING
	...1 ....	LCBNORTY	TEXT RETRY NOT POSSIBLE
	.... 1...	LCBUREQN	UNIT REQUEST IN PROGRESS
	1111 .111	LCBUREQF	UNIT REQUEST NOT IN PROGRESS
	.... .1..	LCBBFRSZ	QUEUE MANAGEMENT FLAG
	.... ..1.	LCBTETEN	USER REQUESTED TETE A TETE
	1111 11.1	LCBTETEF	TETE A TETE NOT REQUESTED
	.... ...1	LCBABRTN	ABORT SEQUENCE MUST BE SENT
	1111 111.	LCBABRTF	ABORT SEQUENCE NOT REQUIRED
21	(15)	3 LCBINSRC	IN-SOURCE CHAIN
24	(18)	1 LCBNTXT	PRFNTXT SAVE AREA
25	(19)	3 LCBSCBDA	ADDR SCB DIRECTORY
28	(1C)	1 LCBISZE	COUNT OF IDLES RESERVED
29	(1D)	3 LCBFSBFR	FIRST BFR ASSIGNED TO THIS LCB
29	(1D)	3 LCBLSBFR	
32	(20)	1 LCBFLAG1	IOS FLAGS 1
33	(21)	1 LCBFLAG2	IOS FLAGS 2
34	(22)	1 LCBSSENS0	SENSE BYTE 0
35	(23)	1 LCBSSENS1	SENSE BYTE 1
36	(24)	1 LCBECBCC	COMPLETION CODE
37	(25)	3 LCBECBPT	ADDR OF ECB
40	(28)	1 LCBFLAG3	IOS FLAGS 3
	.... ..1.	LCBOBRRD	TPER RECORD PROCESSING
41	(29)	7 LCBCSW	LAST CSW



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
48	(30)	1 LCBSIOCC	SIO CONDITION CODE
49	(31)	3 LCBSTART	ADDR OF CHANNEL PROGRAM
52	(34)	4 LCBDCBPT	ADDRESS OF CORRESPONDING DCB
56	(38)	4 LCBRESTR	ERROR MESSAGE DATA
56	(38)	4 LCBRCQCB	QCB TO TPOST RECALLED BUFFER TO
60	(3C)	2 LCBINCAM	IOS
62	(3E)	2 LCBTTBIN	TERM TO BE CONNECTED INDEX
62	(3E)	2 LCBERRCT	IOS ERROR COUNTERS
64	(40)	1 LCBUCBX	UCB INDEX
65	(41)	3 LCBRCBFR	POINTER TO RECALLED BUFFER
65	(41)	3 LCBLSPCI	ADDR OF LAST SRVCD PCI
68	(44)	2 LCBRECOF	OFFSET TO START OF BUFFER TRANSLATION ROUTINE
70	(46)	2 LCBSTATE	STATUS BITS
70	(46)	1 LCBSTAT1	FIRST STATUS BYTE
	1... ..	LCBRCLLN	RECALL BEING PERFORMED
	.111 1111	LCBRCLLF	NO RECALL
	.1.. ....	LCBCTLMD	LINE IN CONTROL MODE
	..1. ....	LCBOCNI	NON-IMMEDIATE OPERATOR CONTROL OPERATION IN PROGRESS
	...1 ....	LCBINITN	RECEIVING INITIATE MODE MSG
	111. 1111	LCBINITF	NO INITIATE MODE
	.... 1...	LCBCONT	CONTINUE OR RESET OPERATION
	.... .1..	LCBFREEN	LINE FREE
	1111 1.11	LCBFREEF	LINE NOT FREE
	..... ..1.	LCBRECVN	LINE IS RECEIVING
	..... ...1	LCBSENDN	ON = LINE SENDING BOTH SEND AND RECEIVE BITS OFF INDICATE LINE IS STOPPED
71	(47)	1 LCBSTAT2	SECOND STATUS BYTE
	1... ..	LCBTRACE	I/O TRACE ACTIVE FOR THIS LINE
	.111 1111	LCBTRCOF	TRACE NOT ACTIVE
	.1.. ....	LCBMSGNN	MSGEN/STARTUP MESSAGE
	1.11 1111	LCBMSGNF	NOT MSGEN/STARTUP MESSAGE
	..1. ....	LCBBEOTN	EOT FROM BFRED TERM -NO EOM
	11.1 1111	LCBBEOTF	REGULAR EOM IF EOT
	...1 ....	LCBSNDPR	SEND PRIORITY SWITCH SET BY SEND SCHEDULER
	.... 1...	LCBNEGRP	NEGATIVE RESPONSE TO POLLING RECEIVED
	.... .1..	LCBSYNC	LINE IS BISYNC
	.... ..1.	LCBDIAL	DIAL LCB
	..... ...1	LCBRESP	A TERMINAL RESPONSE IS DUE
72	(48)	1 LCBTSTSW	TEST-AND-SET SWITCH BIT DEFINITIONS
	1... ..	LCBCONCT	CONNECTION ESTABLISHED
73	(49)	3 LCBRECAD	ADDRESS CURRENT MSG BLOCK
76	(4C)	4 LCBERB	ERB
76	(4C)	1 LCBERBKY	ELEMENT REQUEST BLOCK KEY
77	(4D)	3 LCBERBQB	ADDRESS OF QCB TO WHICH THIS ERB IS CURRENTLY TPOSTED
80	(50)	1 LCBERBPY	ERB PRIORITY
81	(51)	3 LCBERBLK	ADDR NEXT ITEM IN CHAIN
84	(54)	1 LCBERBST	STATUS OF ERB THE X'08' BIT MUST NEVER BE ON IN THE STATUS BYTE. IT MUST REMAIN THE 9TH BYTE OF THE ERB BIT DEFINITIONS

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
1...	....	LCBMSG	END OF INITIATE MODE TO IEDQHM
.1..	....	LCBEOMSG	END OF MESSAGE READ FROM DISK
..1.	....	LCBRDERR	LOGICAL READ ERROR
11.1	1111	LCBRDERF	NO READ ERROR
...1	....	LCBINQ	ERB IS WAITING-BFRS FROM IEDQHM
....	.1..	LCBERROR	ERROR ON SEND SIDE
....	..1.	LCBPRCPG	AFTER INITIAL REQUEST IS SATISFIED, ERB WILL BE POSTED TO QCB INDICATED IN LCBRCQCB
....	..1.	LCBCOMPL	DISK REQUEST IS COMPLETE
....	...1	LCBDLNKN	ERB NOT TPOSTED; IF ON THE ERB CAN BE TPOSTED
1111	111.	LCBDLNKF	ERB POSTED; PCI CAN NOT TPOST ERB
85	(55)	3 LCBERBCH	ADDR CHAIN ASSIGNED BFRS
88	(58)	2 LCBERBCT	COUNT FIELDS
90	(5A)	2 LCBTTCIN	TERM CURR CONNECTED INDEX
92	(5C)	1 LCBMSGFM	BITS TO CONTROL BSC LINE
1...	....	LCBNAK	REQUEST TO SEND NAK RESPONSE
.1..	....	LCBACKI	ACK COUNTER - SEND/RECEIVE
			FOLLOWING TWO BITS INDICATE WHETHER A SCAN OF LINE CONTROL HAS BEEN ACCOMPLISHED AND TYPE OF LINE CONTROL RECEIVED.
..1.	....	LCBVSTRT	VALID START SEQUENCE
...1	....	LCBRSTRT	ERROR START SEQUENCE
....	1...	LCBTTD	TTD RECEIVED
....	.1..	LCBENQ	ENQ RECEIVED
....	..1.	LCBEOT	EOT FIRST CHARACTER
....	...1	LCBOLT	TOTE REQUEST
93	(5D)	3 LCBSCBA	ADDRESS OF CURRENT SCB
96	(60)	1 LCBERMSK	ERROR RECORDING MASK
97	(61)	3 LCBINVPT	ADDR CURR ENTRY IN INV LIST
100	(64)	12 LCBTPCD	TP OP CODES
112	(70)	1 LCBSNSV	SAVE AREA FOR SENSE BYTE
113	(71)	7 LCBCSWSV	SAVE AREA FOR CSW
120	(78)	24 LCBERCCW	3 ERP COMMANDS
144	(90)	8 LCBCPA	CHANNEL PROGRAM AREA

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
LCBABRTF	20 X'FE'	LCBMSGFM	92 (5C)	LCBUCBX	64 (40)
LCBABRTN	20 X'01'	LCBMSGNF	71 X'BF'	LCBUREQF	20 X'F7'
LCBACKI	92 X'40'	LCBMSGNN	71 X'40'	LCBUREQN	20 X'08'
LCBBEOTF	71 X'DF'	LCBNAK	92 X'80'	LCBVSTRT	92 X'20'
LCBBEOTN	71 X'20'	LCBNEGRP	71 X'08'	LCBWRBRK	19 X'80'
LCBBFRSZ	20 X'04'	LCBNORTY	20 X'10'	LCB2741N	19 X'01'
LCBCHAIN	20 (14)	LCBNTXT	24 (18)		
LCBCIRCD	19 X'04'	LCBOBRRD	40 X'02'		
LCBCOMPL	84 X'02'	LCBOCNI	70 X'20'		
LCBCONCT	72 X'80'	LCBOLT	92 X'01'		
LCBCONT	70 X'08'	LCBPRCPG	84 X'02'		
LCBCPA	144 (90)	LCBPREP	19 X'08'		
LCBCSW	41 (29)	LCBPRI	4 (4)		
LCBCSWSV	113 (71)	LCBQCBA	1 (1)		
LCBCTLMD	70 X'40'	LCBRCB	0 (0)		
LCBCVRSP	*A* LCBCTLMD	LCBRCBFR	65 (41)		
LCBDCBPT	52 (34)	LCBRCLLF	70 X'7F'		
LCBDIAL	71 X'02'	LCBRCLLN	70 X'80'		
LCBDLNKF	84 X'FE'	LCBRQCQB	56 (38)		
LCBDLNKN	84 X'01'	LCBRDERF	84 X'DF'		
LCBECBCC	36 (24)	LCBRDERR	84 X'20'		
LCBECBPT	37 (25)	LCBRECAD	73 (49)		
LCBENQ	92 X'04'	LCBRECOF	68 (44)		
LCBEOLTD	16 (10)	LCBRECVN	70 X'02'		
LCBEOMSG	84 X'40'	LCBRESP	71 X'01'		
LCBEOT	92 X'02'	LCBRESTR	56 (38)		
LCBERB	76 (4C)	LCBRSKEY	8 (8)		
LCBERBCH	85 (55)	LCBRSLNK	13 (D)		
LCBERBCT	88 (58)	LCBRSPRI	12 (C)		
LCBERBKY	76 (4C)	LCBRSTRT	92 X'10'		
LCBERBLK	81 (51)	LCBSATRD	19 X'20'		
LCBERBPY	80 (50)	LCBSCBA	93 (5D)		
LCBERBQB	77 (4D)	LCBSCBDA	25 (19)		
LCBERBST	84 (54)	LCBSCRNF	20 X'7F'		
LCBERCCW	120 (78)	LCBSCRNN	20 X'80'		
LCBERMSG	20 X'20'	LCBSENDN	70 X'01'		
LCBERMSK	96 (60)	LCBSENS0	34 (22)		
LCBERRCT	62 (3E)	LCBSENS1	35 (23)		
LCBERROR	84 X'04'	LCBSIOCC	48 (30)		
LCBEXCP	20 X'40'	LCBSNDPR	71 X'10'		
LCBFLAG1	32 (20)	LCBSNSV	112 (70)		
LCBFLAG2	33 (21)	LCBSOPL	19 X'10'		
LCBFLAG3	40 (28)	LCBSTART	49 (31)		
LCBFREEF	70 X'FB'	LCBSTATE	70 (46)		
LCBFREEN	70 X'04'	LCBSTAT1	70 (46)		
LCBFSBFR	29 (1D)	LCBSTAT2	71 (47)		
LCBINCAM	60 (3C)	LCBSTCBA	9 (9)		
LCBINHBN	19 X'02'	LCBSYNC	71 X'04'		
LCBINITF	70 X'EF'	LCBTDL	18 (12)		
LCBINITN	70 X'10'	LCBTETEF	20 X'FD'		
LCBINQ	84 X'10'	LCBTETEN	20 X'02'		
LCBINSRC	21 (15)	LCBTPCD	100 (64)		
LCBINVPT	97 (61)	LCBTRACE	71 X'80'		
LCBISZE	28 (1C)	LCBTRCOF	71 X'7F'		
LCBKEY	0 (0)	LCBTSTBUF	19 X'40'		
LCBLINK	5 (5)	LCBTSTOB	19 (13)		
LCBLOCK	71 X'80'	LCBTSTSW	72 (48)		
LCBLSBFR	29 (1D)	LCBTTBIN	62 (3E)		
LCBLSPCI	65 (41)	LCBTTCIN	90 (5A)		
LCBMSG	84 X'80'	LCBTDD	92 X'08'		

END OF LCB



## Partitioned Data Set Directory Entries

A partitioned data set (PDS) directory entry describes a member of a partitioned data set. An entry is a maximum of 74 bytes and contains the name or alias name of a member, a pointer to the first block of the named member, and a user data field.

The pointer to the named member, as well as pointers that may appear within the user data field, are all relative addresses. They have the form TTR, specifying the address of the block relative to the address of the first block of the data set.

Separate descriptions are presented for the two formats of the PDS directory entry:

- Format 1 shows the PDS directory entry used by the linkage editor for placing (stowing) information in the directory of a PDS whose members are load modules.
- Format 2 shows the PDS directory entry format for a load module being brought into storage by the BLDL macro instruction.

## Partitioned Data Set Directory Entry -- Format 1

This format of the partitioned data set (PDS) directory entry is produced by the linkage editor for a load module.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+0	(0)	8 PDS2NAME	LOAD MODULE MEMBER NAME OR ALIAS
+8	(8)	3 PDS2TTRP	TTR OF FIRST BLOCK OF NAMED MEMBER
+11	(B)	1 PDS2INDC	INDICATOR BYTE
	1... ..	PDS2ALIS	NAME IN THE FIRST FIELD IS AN ALIAS
	1... ..	DEALIAS	ALIAS FOR PDS2ALIS
	.11. ....	PDS2NTTR	NUMBER OF TTR'S IN THE USER DATA FIELD
	...x xxxx	PDS2LUSR	LENGTH OF USER DATA FIELD IN HALF WORDS
+12	(C)	PDS2USRD	START OF VARIABLE LENGTH USER DATA FIELD
+12	(C)	3 PDS2TTRT	TTR OF FIRST BLOCK OF TEXT
+15	(F)	1 PDS2ZERO	ZERO
+16	(10)	3 PDS2TTRN	TTR OF NOTE LIST OR SCATTER/TRANSLATION TABLE. USED FOR MODULES IN SCATTER LOAD FORMAT OR OVERLAY STRUCTURE ONLY.
+19	(13)	1 PDS2NL	NUMBER OF ENTRIES IN NOTE LIST FOR MODULES IN OVERLAY STRUCTURE, OTHERWISE ZERO
+20	(14)	2 PDS2ATR	TWO-BYTE MODULE ATTRIBUTE FIELD
+20	(14)	1 PDS2ATR1	FIRST BYTE OF MODULE ATTRIBUTE FIELD
	1... ..	PDS2RENT	REENTERABLE
	1... ..	DEREEN	ALIAS FOR PDS2RENT
	.1.. ....	PDS2REUS	REUSABLE
	..1. ....	PDS2OVLY	IN OVERLAY STRUCTURE
	..1. ....	DEOVLY	ALIAS FOR PDS2OVLY
	...1 ....	PDS2TEST	MODULE TO BE TESTED - TESTRAN
	.... 1...	PDS2LOAD	ONLY LOADABLE
	.... 1...	DELODY	ALIAS FOR PDS2LOAD
	.... .1..	PDS2SCTR	SCATTER FORMAT
	.... .1..	DESCAT	ALIAS FOR PDS2SCTR
	.... ..1.	PDS2EXEC	EXECUTABLE
	.... ..1.	DEXCUT	ALIAS FOR PDS2EXEC
	.... ...1	PDS21BLK	IF ZERO, MODULE CONTAINS MULTIPLE RECORDS WITH AT LEAST ONE BLOCK OF TEXT. --- IF ONE, MODULE CONTAINS NO RLD ITEMS AND ONLY ONE BLOCK OF TEXT.
+21	(15)	1 PDS2ATR2	SECOND BYTE OF MODULE ATTRIBUTE FIELD
	1... ..	PDS2FLVL	IF ZERO, MODULE CAN BE PROCESSED BY ALL LEVELS OF LINKAGE EDITOR. --- IF ONE, MODULE CAN BE PROCESSED ONLY BY F LEVEL OF LINKAGE EDITOR.
	.1.. ....	PDS2ORGO	LINKAGE EDITOR ASSIGNED ORIGIN OF FIRST BLOCK OF TEXT IS ZERO.
	..1. ....	PDS2EP0	ENTRY POINT ASSIGNED BY LINKAGE EDITOR IS ZERO
	...1 ....	PDS2NRLD	MODULE CONTAINS NO RLD ITEMS
	.... 1...	PDS2NREP	MODULE CANNOT BE REPROCESSED BY LINKAGE EDITOR
	.... .1..	PDS2TSTN	MODULE CONTAINS TESTRAN SYMBOL CARDS
	.... ..1.	PDS2LEF	MODULE CREATED BY LINKAGE EDITOR F
	.... ...1	PDS2REFR	REFRESHABLE MODULE
+22	(16)	3 PDS2STOR	TOTAL CONTIGUOUS MAIN STORAGE REQUIREMENT OF MODULE
+25	(19)	2 PDS2FTBL	LENGTH OF FIRST BLOCK OF TEXT
+27	(1B)	3 PDS2EPA	ENTRY POINT ADDRESS ASSOCIATED WITH MEMBER NAME OR WITH ALIAS NAME IF ALIAS INDICATOR IS ONE
+30	(1E)	3 PDS2FTBO	FLAG BYTES

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+30	(1E)	1 PDS2FTB1	BYTE 1 OF PDS2FTBO
		1... .. PDSAOSLE	MODULE HAS BEEN PROCESSED BY VS LINKAGE EDITOR
		.1.. ..	RESERVED TO INDICATE ANOTHER EXPANSION WHEN IT BECOMES NECESSARY
		..1. .... PDS2PAGA	PAGE ALIGNMENT REQUIRED FOR LOAD MODULE
		...1 .... PDS2SSI	SSI INFORMATION PRESENT
		.... 1... PDSAPFLG	INFORMATION IN PDSAPF IS VALID
+31	(1F)	1 PDS2FTB2	BYTE 2 OF PDS2FTBO
+32	(20)	1 PDS2FTB3	BYTE 3 OF PDS2FTBO
			THE FOLLOWING SECTION IS FOR LOAD MODULES WITH SCATTER LOAD
+33	(21)	2 PDS2SLSZ	NUMBER OF BYTES IN SCATTER LIST
+35	(23)	2 PDS2TTSZ	NUMBER OF BYTES IN TRANSLATION TABLE
+37	(25)	2 PDS2ESDT	IDENTIFICATION OF ESD ITEM (ESDID) OF CONTROL SECTION TO WHICH FIRST BLOCK OF TEXT BELONGS
+39	(27)	2 PDS2ESDC	IDENTIFICATION OF ESD ITEM (ESDID) OF CONTROL SECTION CONTAINING ENTRY POINT
			THE FOLLOWING SECTION IS FOR LOAD MODULES WITH ALIAS NAMES
+41	(29)	3 PDS2EPM	ENTRY POINT FOR MEMBER NAME
+44	(2C)	8 PDS2MNM	MEMBER NAME OF LOAD MODULE
			THE FOLLOWING SECTION IS FOR SSI INFORMATION AND IS ON A HALF-WORD BOUNDARY
+52	(34)	2 PDSS03	FORCE HALF-WORD ALIGNMENT FOR SSI SECTION
+52	(34)	4 PDSSSIWD	SSI INFORMATION WORD
+52	(34)	1 PDSCHLVL	CHANGE LEVEL OF MEMBER
+53	(35)	1 PDSSSIFB	SSI FLAG BYTE
		.1.. .... PDSFORCE	A FORCE CONTROL CARD WAS USED WHEN EXECUTING THE IHGUAP PROGRAM
		..1. .... PDSUSRCH	A CHANGE WAS MADE TO MEMBER BY THE INSTALLATION, AS OPPOSED TO AN IBM-DISTRIBUTED CHANGE
		...1 .... PDSEMFIX	SET WHEN AN EMERGENCY IBM-AUTHORIZED PROGRAM 'FIX' IS MADE, AS OPPOSED TO CHANGES THAT ARE INCLUDED IN AN IBM-DISTRIBUTED MAINTENANCE PACKAGE
		.... 1... PDSDEPCH	A CHANGE MADE TO THE MEMBER IS DEPENDENT UPON A CHANGE MADE TO SOME OTHER MEMBER IN THE SYSTEM
		.... .11. PDSSYSGN	FLAGS THAT INDICATE WHETHER OR NOT A CHANGE TO THE MEMBER WILL NECESSITATE A PARTIAL OR COMPLETE REGENERATION OF THE SYSTEM
		.... .... PDSNOSGN	NOT CRITICAL FOR SYSTEM GENERATION
		.... .1. PDSCMSGN	MAY REQUIRE COMPLETE REGENERATION
		.... .1.. PDSPTSGN	MAY REQUIRE PARTIAL REGENERATION
		.... ...1 PDSIBMMB	MEMBER IS SUPPLIED BY IBM
+54	(36)	2 PDSMBRSN	MEMBER SERIAL NUMBER
			THE FOLLOWING SECTION IS FOR APF INFORMATION
+56	(38)	2 PDSAPF	PROGRAM AUTHORIZATION FACILITY (APF) FIELD
+56	(38)	1 PDSAPFCT	LENGTH OF PROGRAM AUTHORIZATION CODE (PDSAPFAC) IN BYTES
+57	(39)	1 PDSAPFAC	PROGRAM AUTHORIZATION CODE



<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DEALIAS	+11 X'80'	PDS2SSI	+30 X'10'		
DEENTBK	*A* PDS2EPM	PDS2STOR	+22 (16)		
DELODY	+20 X'08'	PDS2TEST	+20 X'10'		
DEOVLY	+20 X'20'	PDS2TSTN	+21 X'04'		
DEREEN	+20 X'80'	PDS2TTRN	+16 (10)		
DESCAT	+20 X'04'	PDS2TTRP	+8 (8)		
DEXCUT	+20 X'02'	PDS2TTRT	+12 (C)		
PDSAOSLE	+30 X'80'	PDS2TTSZ	+35 (23)		
PDSAPF	+56 (38)	PDS2USRD	+12 (C)		
PDSAPFAC	+57 (39)	PDS2ZERO	+15 (F)		
PDSAPFCT	+56 (38)	PDS21BLK	+20 X'01		
PDSAPFLG	+30 X'08'				
PDSCHLVL	+52 (34)				
PDSCMSGN	+53 X'02'				
PDSDEPCH	+53 X'08'				
PDSEMFIX	+53 X'10'				
PDSFORCE	+53 X'40'				
PDSIBMMB	+53 X'01'				
PDSMBRSN	+54 (36)				
PDSNOSGN	+53 X'00'				
PDSPTSGN	+53 X'04'				
PDSSSIFB	+53 (35)				
PDSSSIWD	+52 (34)				
PDSSYSGN	+53 X'06'				
PDSS03	+52 (34)				
PDSUSRCH	+53 X'20'				
PDS2ALIS	+11 X'80'				
PDS2ATR	+20 (14)				
PDS2ATR1	+20 (14)				
PDS2ATR2	+21 (15)				
PDS2EPA	+27 (1B)				
PDS2EPM	+41 (29)				
PDS2EPO	+21 X'20'				
PDS2ESDC	+39 (27)				
PDS2ESDT	+37 (25)				
PDS2EXEC	+20 X'02'				
PDS2FLVL	+21 X'80'				
PDS2FTBL	+25 (19)				
PDS2FTBO	+30 (1E)				
PDS2FTB1	+30 (1E)				
PDS2FTB2	+31 (1F)				
PDS2FTB3	+32 (20)				
PDS2INDC	+11 (B)				
PDS2LEF	+21 X'02'				
PDS2LOAD	+20 X'08'				
PDS2LUSR	+11 X'1F'				
PDS2MNM	+44 (2C)				
PDS2NAME	+0 (0)				
PDS2NL	+19 (13)				
PDS2NREP	+21 X'08'				
PDS2NRLD	+21 X'10'				
PDS2NTTR	+11 X'60'				
PDS2ORGO	+21 X'40'				
PDS2OVLY	+20 X'20'				
PDS2PAGA	+30 X'20'				
PDS2REFR	+21 X'01'				
PDS2RENT	+20 X'80'				
PDS2REUS	+20 X'40'				
PDS2SCTR	+20 X'04'				
PDS2SLSZ	+33 (21)				

END OF PDS

## **Partitioned Data Set Directory Entry -- Format 2**

This format of the partitioned data set (PDS) directory entry is received upon issuance of a BLDL macro instruction where the specified members are load modules produced by the linkage editor.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+0	(0)	8 PDS2NAME	LOAD MODULE MEMBER NAME OR ALIAS
+8	(8)	3 PDS2TTRP	TTR OF FIRST BLOCK OF NAMED MEMBER
+11	(B)	1 PDS2CNCT	CONCATENATION NUMBER OF THE DATA SET
+12	(C)	1 PDS2LIBF	LIBRARY FLAG FIELD
	....	.... PDS2LNRM	NORMAL CASE
	....	...1 PDS2LLNK	IF DCB OPERAND IN BLDL MACRO INTRUCTION WAS SPECIFIED AS ZERO, NAME WAS FOUND IN LINK LIBRARY
	....	..1. PDS2LJOB	IF DCB OPERAND IN BLDL MACRO INTRUCTION WAS SPECIFIED AS ZERO, NAME WAS FOUND IN JOB LIBRARY
+13	(D)	1 PDS2INDC	INDICATOR BYTE
	1...	.... PDS2ALIS	NAME IN THE FIRST FIELD IS AN ALIAS
	1...	.... DEALIAS	ALIAS FOR PDS2ALIS
	.11.	.... PDS2NTTR	NUMBER OF TTR'S IN THE USER DATA FIELD
	...1	1111 PDS2LUSR	LENGTH OF USER DATA FIELD IN HALF WORDS
+14	(E)	PDS2USRD	START OF VARIABLE LENGTH USER DATA FIELD
+14	(E)	3 PDS2TTRT	TTR OF FIRST BLOCK OF TEXT
+17	(11)	1 PDS2ZERO	ZERO
+18	(12)	3 PDS2TTRN	TTR OF NOTE LIST OR SCATTER/TRANSLATION TABLE. USED FOR MODULES IN SCATTER LOAD FORMAT OR OVERLAY STRUCTURE ONLY.
+21	(15)	1 PDS2NL	NUMBER OF ENTRIES IN NOTE LIST FOR MODULES IN OVERLAY STRUCTURE, OTHERWISE ZERO
+22	(16)	2 PDS2ATR	TWO-BYTE MODULE ATTRIBUTE FIELD
+22	(16)	1 PDS2ATR1	FIRST BYTE OF MODULE ATTRIBUTE FIELD
	1...	.... PDS2RENT	REENTERABLE
	1...	.... DEREEN	ALIAS FOR PDS2RENT
	.1..	.... PDS2REUS	REUSABLE
	..1.	.... PDS2OVLY	IN OVERLAY STRUCTURE
	..1.	.... DEOVLY	ALIAS FOR PDS2OVLY
	...1	.... PDS2TEST	MODULE TO BE TESTED - TESTRAN
	....	1... PDS2LOAD	ONLY LOADABLE
	....	1... DELODY	ALIAS FOR PDS2LOAD
	....	.1.. PDS2SCTR	SCATTER FORMAT
	....	.1.. DESCAT	ALIAS FOR PDS2SCTR
	....	..1. PDS2EXEC	EXECUTABLE
	....	..1. DEXCUT	ALIAS FOR PDS2EXEC
	....	...1 PDS21BLK	IF ZERO, MODULE CONTAINS MULTIPLE RECORDS WITH AT LEAST ONE BLOCK OF TEXT. --- IF ONE, MODULE CONTAINS NO RLD ITEMS AND ONLY ONE BLOCK OF TEXT.
+23	(17)	1 PDS2ATR2	SECOND BYTE OF MODULE ATTRIBUTE FIELD
	1...	.... PDS2FLVL	IF ZERO, MODULE CAN BE PROCESSED BY ALL LEVELS OF LINKAGE EDITOR. --- IF ONE, MODULE CAN BE PROCESSED ONLY BY F LEVEL OF LINKAGE EDITOR.
	.1..	.... PDS2ORG0	LINKAGE EDITOR ASSIGNED ORIGIN OF FIRST BLOCK OF TEXT IS ZERO.
	..1.	.... PDS2EP0	ENTRY POINT ASSIGNED BY LINKAGE EDITOR IS ZERO
	...1	.... PDS2NRLD	MODULE CONTAINS NO RLD ITEMS
	....	1... PDS2NREP	MODULE CANNOT BE REPROCESSED BY LINKAGE EDITOR
	....	.1.. PDS2TSTN	MODULE CONTAINS TESTRAN SYMBOL CARDS

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	..1. PDS2LEF	MODULE CREATED BY LINKAGE EDITOR F
	....	...1 PDS2REFR	REFRESHABLE MODULE
+24	(18)	3 PDS2STOR	TOTAL CONTIGUOUS MAIN STORAGE REQUIREMENT OF MODULE
+27	(1B)	2 PDS2FTBL	LENGTH OF FIRST BLOCK OF TEXT
+29	(1D)	3 PDS2EPA	ENTRY POINT ADDRESS ASSOCIATED WITH MEMBER NAME OR WITH ALIAS NAME IF ALIAS INDICATOR IS ONE
+32	(20)	3 PDS2FTBO	FLAG BYTES (VS USE OF FIELD)
+32	(20)	1 PDS2FTB1	BYTE 1 OF PDS2FTBO
	1...	.... PDSAOSLE	MODULE HAS BEEN PROCESSED BY VS LINKAGE EDITOR
			BIT1 IS RESERVED TO INDICATE ANOTHER EXPANSION WHEN IT BECOMES NECESSARY
	..1.	.... PDS2PAGA	PAGE ALIGNMENT REQUIRED FOR LOAD MODULE
	...1	.... PDS2SSI	SSI INFORMATION PRESENT
	....	1... PDSAPFLG	INFORMATION IN PDSAPF IS VALID
+33	(21)	1 PDS2FTB2	BYTE 2 OF PDS2FTBO
+34	(22)	1 PDS2FTB3	BYTE 3 OF PDS2FTBO
			THE FOLLOWING SECTION IS FOR LOAD MODULES WITH SCATTER LOAD
+35	(23)	2 PDS2SLSZ	NUMBER OF BYTES IN SCATTER LIST
+37	(25)	2 PDS2TTSZ	NUMBER OF BYTES IN TRANSLATION TABLE
+39	(27)	2 PDS2ESDT	IDENTIFICATION OF ESD ITEM (ESDID) OF CONTROL SECTION TO WHICH FIRST BLOCK OF TEXT BELONGS
+41	(29)	2 PDS2ESDC	IDENTIFICATION OF ESD ITEM (ESDID) OF CONTROL SECTION CONTAINING ENTRY POINT
			THE FOLLOWING SECTION IS FOR LOAD MODULES WITH ALIAS NAMES
+43	(2B)	3 PDS2EPM	ENTRY POINT FOR MEMBER NAME
+46	(2E)	8 PDS2MNM	MEMBER NAME OF LOAD MODULE
			THE FOLLOWING SECTION IS FOR SSI INFORMATION AND IS ON A HALF-WORD BOUNDARY
+54	(36)	2 PDSS03	FORCE HALF-WORD ALIGNMENT FOR SSI SECTION
+54	(36)	4 PDSSSIWD	SSI INFORMATION WORD
+54	(36)	1 PDSCHLVL	CHANGE LEVEL OF MEMBER
+55	(37)	1 PDSSSIFB	SSI FLAG BYTE
	.1..	.... PDSFORCE	A FORCE CONTROL CARD WAS USED WHEN EXECUTING THE IHGUAP PROGRAM
	..1.	.... PDSUSRCH	A CHANGE WAS MADE TO MEMBER BY THE INSTALLATION, AS OPPOSED TO AN IBM-DISTRIBUTED CHANGE
	...1	.... PDSEMFIX	SET WHEN AN EMERGENCY IBM-AUTHORIZED PROGRAM 'FIX' IS MADE, AS OPPOSED TO CHANGES THAT ARE INCLUDED IN AN IBM-DISTRIBUTED MAINTENANCE PACKAGE
	....	1... PDSDEPCH	A CHANGE MADE TO THE MEMBER IS DEPENDENT UPON A CHANGE MADE TO SOME OTHER MEMBER IN THE SYSTEM
	....	.11. PDSSYSGN	FLAGS THAT INDICATE WHETHER OR NOT A CHANGE TO THE MEMBER WILL NECESSITATE A PARTIAL OR COMPLETE REGENERATION OF THE SYSTEM
	....	.... PDSNOSGN	NCT CRITICAL FOR SYSTEM GENERATION
	....	..1. PDSCMSGN	MAY REQUIRE COMPLETE REGENERATION

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	.1.. PDSPTSGN	MAY REQUIRE PARTIAL REGENERATION
	....	...1 PDSIBMMB	MEMBER IS SUPPLIED BY IBM
+56	(38)	2 PDSMBRSN	MEMBER SERIAL NUMBER
THE FOLLOWING SECTION IS FOR APF INFORMATION			
+58	(3A)	2 PDSAPF	PROGRAM AUTHORIZATION FACILITY (APF) FIELD
+58	(3A)	1 PDSAPFCT	LENGTH OF PROGRAM AUTHORIZATION CODE (PDSAPFAC) IN BYTES
+59	(3B)	1 PDSAPFAC	PROGRAM AUTHORIZATION CODE

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
DEALIAS	+13 X'80'	PDS2PAGA	+32 X'20'		
DEENBTK	*A* PDS2EPM	PDS2REFR	+23 X'01'		
DELODY	+22 X'08'	PDS2RENT	+22 X'80'		
DEOVLY	+22 X'20'	PDS2REUS	+22 X'40'		
DEREEN	+22 X'80'	PDS2SCTR	+22 X'04'		
DESCAT	+22 X'04'	PDS2SLSZ	+35 (23)		
DEXCUT	+22 X'02'	PDS2SSI	+32 X'10'		
DEZBYTE	*A* PDS2LIBF	PDS2STOR	+24 (18)		
PDSAOSLE	+32 X'80'	PDS2TEST	+22 X'10'		
PDSAPF	+58 (3A)	PDS2TSTN	+23 X'04'		
PDSAPFAC	+59 (3B)	PDS2TTRN	+18 (12)		
PDSAPFCT	+58 (3A)	PDS2TTRP	+8 (8)		
PDSAPFLG	+32 X'08'	PDS2TTRT	+14 (E)		
PDSCHLVL	+54 (36)	PDS2TTSZ	+37 (25)		
PDSMSGN	+55 X'02'	PDS2USRD	+14 (E)		
PDSDEPCH	+55 X'08'	PDS2ZERO	+17 (11)		
PDSEMFIX	+55 X'10'	PDS21BLK	+22 X'01'		
PDSFORCE	+55 X'40'				
PDSIBMMB	+55 X'01'				
PDSMBRSN	+56 (38)				
PDSNOSGN	+55 X'00'				
PDSPTS GN	+55 X'04'				
PDSSSIFB	+55 (37)				
PDSSSIWD	+54 (36)				
PDSSYSGN	+55 X'06'				
PDSS03	+54 (36)				
PDSUSRCH	+55 X'20'				
PDS2ALIS	+13 X'80'				
PDS2ATR	+22 (16)				
PDS2ATR1	+22 (16)				
PDS2ATR2	+23 (17)				
PDS2CNCT	+11 (B)				
PDS2EPA	+29 (1D)				
PDS2EPM	+43 (2B)				
PDS2EPO	+23 X'20'				
PDS2ESDC	+41 (29)				
PDS2ESDT	+39 (27)				
PDS2EXEC	+22 X'02'				
PDS2FLVL	+23 X'80'				
PDS2FTBL	+27 (1B)				
PDS2FTBO	+32 (20)				
PDS2FTB1	+32 (20)				
PDS2FTB2	+33 (21)				
PDS2FTB3	+34 (22)				
PDS2INDC	+13 (D)				
PDS2LEF	+23 X'02'				
PDS2LIBF	+12 (C)				
PDS2LJOB	+12 X'02'				
PDS2LLNK	+12 X'01'				
PDS2LNRM	+12 X'00'				
PDS2LOAD	+22 X'08'				
PDS2LUSR	+13 X'1F'				
PDS2MNM	+46 (2E)				
PDS2NAME	+0 (0)				
PDS2NL	+21 (15)				
PDS2NREP	+23 X'08'				
PDS2NRDL	+23 X'10'				
PDS2NTTR	+13 X'60'				
PDS2ORGO	+23 X'40'				
PDS2OVLY	+22 X'20'				

END OF PDS

## **Request Blocks**

Request blocks are used by the supervisor for maintaining information concerning programs and routines. Other components of the control program may create request blocks and/or refer to information in them.

The following request blocks are shown:

- SVRB -Supervisor Request Block for transient SVC routines.
- SVRB - Supervisor Request Block for resident SVC routines.
- IRB - Interruption Request Block.
- SIRB - System Interruption Request Block.
- PRB - Program Request Block.
- TIRB - Task Interruption Request Block.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
-64	(-40)	56	RESERVED FOR FUTURE EXPANSION
-8	(-8)	8 RBPRFXST	START OF ASSIGNED FIELDS IN RB PREFIX
-8	(-8)	1 RBFLAGS1	FLAG BYTE
	1...	.... RBSLOCK	INDICATES THAT THIS RB IS NON-DISPATCHABLE UNTIL THE SUPERVISOR LOCK (CVTSYLK) IS RESET (ALL RB'S)
	.1..	.... RBXWAIT	INDICATES THAT THE PROGRAM OPERATING UNDER THIS RB HAS ISSUED AN EXPLICIT (SVC) WAIT (ALL RB'S)
	..1.	.... RBABEND	ABEND SVRB (SVRB-BOTH)
	...1	.... RBUPR	INDICATES THAT ADDRESS OF A PIE HAS BEEN PLACED IN FIRST WORD OF RBEXSAVE AND A SUPERVISOR SPIE EXIT CAN BE SCHEDULED IF AN INVALID PAGE REFERENCE OCCURS (SVRB-BOTH)
	....	1... RBASIR	ASIR IS RUNNING UNDER THIS RB
	....	.1.. RBRV001	RESERVED
	....	..1. RBRV002	RESERVED
	....	...1 RBRV003	RESERVED
-7	(-7)	3 RBRV004	RESERVED
-4	(-4)	1 RBWCSA	NUMBER OF REQUESTS WAITING AT TIME OF TERMINATION (WAIT COUNT SAVE AREA) (ALL RB'S)
-3	(-3)	3 RBINTCDA	INTERRUPT CODE (ALL RB'S)
-3	(-3)	1 RBINLNTH	INSTRUCTION LENGTH CODE - 4 HIGH-ORDER BITS MUST BE ZERO (ALL RB'S)
-2	(-2)	2 RBINTCOD	INTERRUPT CODE (ALL RB'S)
0	(0)	RBPRFXND	END OF RB PREFIX
0	(0)	8 RBEXRTNM	EIGHT-CHARACTER NAME OF ERROR EXIT ROUTINE (SIRB)
0	(0)	4 RBPPSAV	ADDRESS OF PROBLEM PROGRAM REGISTER SAVE AREA (IRB)
0	(0)	1 RBTMFLD	INDICATORS FOR TIMER ROUTINES. WHEN THERE ARE NO TIMER ROUTINES, THIS FIELD IS ZERO. (IRB)
	1...	.... RBTMQUE	TIMER ELEMENT NOT ON QUEUE
	.1..	.... RBTMTOD	LOCAL TIME-OF-DAY OPTION IS USED
	..1.	.... RBRV005	RESERVED
	...1	.... RBRV006	RESERVED
	....	1... RBTMCMP	INTERVAL HAS EXPIRED
	....	.1.. RBTMIND2	EXIT SPECIFIED WITH TASK OR REAL REQUEST
	....	..XX RBTMIND3	TYPE OF REQUEST
	....	..00 RBTREQ	TASK REQUEST
	....	..01 RBWREQ	WAIT REQUEST
	....	..11 RBRREQ	REAL REQUEST
1	(1)	3 RBPPSAV1	ADDRESS OF PROBLEM PROGRAM REGISTER SAVE AREA (IRB)
4	(4)	4 RBABOPSW	AFTER EXECUTION OF TRANSIENT AREA HANDLER ROUTINE - FOUR LOW-ORDER BYTES OF NAME OF REQUESTED ROUTINE (SVRB-TRANS) AFTER EXECUTION OF ABTERM ROUTINE - RIGHT HALF OF USER'S OLD PSW --- OTHERWISE - ZERO (SVRB-BOTH, IRB, PRB, TIRB)
8	(8)	2 RBSIZE	SIZE OF THIS RB IN DOUBLEWORDS (ALL RB'S)
10	(A)	2 RBSTAB	STATUS AND ATTRIBUTE BITS (ALL RB'S)
10	(A)	1 RBSTAB1	FIRST BYTE OF STATUS AND ATTRIBUTE BITS
	XXX.	.... RBFTP	TYPE OF RB



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
000.	....	RBFTPRB	PRB
011.	....	RBFTTIRB	TIRB
010.	....	RBFTIRB	IRB
100.	....	RBFTSIRB	SIRB
110.	....	RBFTSVRB	SVRB
...	1....	RBTRSVRB	IF RBTRSVRB=0 AND RBCDE=0, THEN TYPE 2 SVC IN NUCLEUS. IF RBTRSVRB=0 AND RBCDE1 NOT 0, THEN SECOND OR SUBSEQUENT LOAD OF TYPE 4 SVC IN FIXED OR MODIFIED LPA (RBCDE1 = ADDRESS OF CDE). IF RBTRSVRB=1 AND RBCDE1=0, THEN TYPE 3 OR FIRST LOAD OF TYPE 4 SVC IN PAGED, FIXED OR MODIFIED LPA. IF RBTRSVRB=1 AND RBCDE1 NOT 0, THEN SECOND OR SUBSEQUENT LOAD OF TYPE 4 SVC IN PAGED LPA (RBCDE1 = ADDRESS OF LPDE).
...	1....	RBFNSVRB	ALIAS FOR RBTRSVRB
....	1...	RBWAITP	INDICATES THAT AN ECB IS POINTING AT THE RB.
....	.1..	RBFTCKPT	A CHECKPOINT MAY BE TAKEN IN A USER EXIT FROM THIS SVC ROUTINE (SVRB-BOTH)
....	..1.	RBATNXIT	THIS IRB IS AN ATTENTION IRB
....	...1	RBRV007	RESERVED
11	(B)	1 RBSTAB2	SECOND BYTE OF STATUS AND ATTRIBUTE BITS
		1... ..	RBTCBNXT RBLINK FIELD POINTS TO TCB (ALL RB'S)
		.1.. ..	RBFACTV IRB OR SIRB IS QUEUED TO TCB - PROGRAM IS ACTIVE
		..1. ....	RBATTN EXITING PROGRAM IS AN ATTENTION EXIT (IRB)
		...1 ....	RBETXR IRB IS FOR AN ETXR EXIT ROUTINE
		...1 ....	RBUSIQE SAME AS RBETXR
		.... XX..	RBIQETP
		.... 00..	RBRQENR REQUEST QUEUE ELEMENT IS NOT TO BE RETURNED
		.... 01..	RBIRBAER IRB HAS QUEUE ELEMENTS FOR ASYNCHRONOUSLY EXECUTED ROUTINES THAT ARE RQE'S
		.... 10..	RBIQENR IQE IS NOT TO BE RETURNED AT EXIT
		.... 11..	RBIRBAIQ IRB HAS QUEUE ELEMENTS FOR ASYNCHRONOUSLY EXECUTED ROUTINES THAT ARE IQE'S
		.... ..1.	RBFQENR RB STORAGE CAN BE FREED AT EXIT
		.... ...1	RBECBWT IF ZERO, WAIT FOR A SINGLE EVENT OR ALL OF A NUMBER OF EVENTS --- IF ONE, WAIT FOR A NUMBER OF EVENTS THAT IS LESS THAN THE TOTAL NUMBER OF EVENTS WAITING
12	(C)	4 RBEP	ENTRY POINT ADDRESS OF ASYNCHRONOUSLY EXECUTED ROUTINE (IRB, SIRB)
12	(C)	4 RBCDE	SAME AS RBCDE1 BELOW (FOR SVRB-BOTH AND PRB)
12	(C)	1 RBCDFLGS	CONTROL FLAGS (FOR SVRB -BOTH AND PRB)
		1... ..	RBRV008 RESERVED
		.1.. ..	RBRV009 RESERVED
		..1. ....	RBCDATCH CONTENTS SUPERVISION HAS BEEN ENTERED VIA ATTACH
		...1 ....	RBRV010 RESERVED
		.... 1...	RBCDNODE NO DE SAVE AREA REQUIRED
		.... .1..	RBCDSYNC SYNCH MACRO INSTRUCTION REQUESTED
		.... ..1.	RBCDXCTL XCTL MACRO INSTRUCTION REQUESTED
		.... ...1	RBCDLOAD LOAD MACRO INSTRUCTION REQUESTED
13	(D)	3 RBCDE1	ADDRESS OF CDE, ADDRESS OF LPDE OR ZERO (SEE COMMENTS FOR BIT RBTRSVRB)
16	(10)	8 RBOPSW	USER'S OLD PSW (ALL RB'S)
24	(18)	4 RBPGMQ	SAME AS RBPGMQ1 BELOW
24	(18)	1	ZERO

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
25	(19)	3 RBPQM01	ADDRESS OF RB INDICATING A REQUEST TO USE SAME SERIALY REUSABLE PROGRAM (SVRB-RES, PRB)
24	(18)	4 RBSQE	SAME AS RBSQEA BELOW (TIRB)
24	(18)	1	RBUSE - CONTAINS ZEROS (TIRB)
25	(19)	3 RBSQEA	CHAIN OF SUPERVISOR QUEUE ELEMENTS (SQE'S) WHICH REPRESENT ASYNCHRONOUS SUPERVISOR SERVICE REQUESTS RELATED TO TCB UNDER WHICH TIRB IS PRESENTLY OPERATING (TIRB)
3-BYTE LINK FIELD SEGMENT			
24	(18)	4 RBIQE	LIST ORIGIN FOR IQE (IRB)
24	(18)	1 RBUSE	USE COUNT USED BY ATTACH (IRB)
25	(19)	3 RBIQE1	LIST ORIGIN FOR IQE (IRB)
24	(18)	4 RBIQE2	
24	(18)	2 RBRV011	RESERVED
26	(1A)	2 RBIQEA	LIST ORIGIN FOR RQE (IRB WITH 2-BYTE LINK FIELD SEGMENT, SIRB)
28	(1C)	4 RBLINK	SAME AS FOR RBLINKB BELOW
28	(1C)	1 RBWCF	NUMBER OF REQUESTS WAITING (WAIT COUNT) (ALL RB'S)
29	(1D)	3 RBLINKB	ADDRESS OF PREVIOUS RB, OR ADDRESS OF TCB WHEN THIS IS FIRST RB ON THE QUEUE (ALL RB'S)
32	(20)	4 PRBEND	END OF PRB
32	(20)	4 SIRBEND	END OF SIRB
32	(20)	64 RBGRSAVE	GENERAL REGISTER SAVE AREA (SVRB-BOTH, IRB, TIRB)
32	(20)	4 RBGRS0	SAVE AREA FOR GENERAL REGISTER 0
36	(24)	4 RBGRS1	SAVE AREA FOR GENERAL REGISTER 1
40	(28)	4 RBGRS2	SAVE AREA FOR GENERAL REGISTER 2
44	(2C)	4 RBGRS3	SAVE AREA FOR GENERAL REGISTER 3
48	(30)	4 RBGRS4	SAVE AREA FOR GENERAL REGISTER 4
52	(34)	4 RBGRS5	SAVE AREA FOR GENERAL REGISTER 5
56	(38)	4 RBGRS6	SAVE AREA FOR GENERAL REGISTER 6
60	(3C)	4 RBGRS7	SAVE AREA FOR GENERAL REGISTER 7
64	(40)	4 RBGRS8	SAVE AREA FOR GENERAL REGISTER 8
68	(44)	4 RBGRS9	SAVE AREA FOR GENERAL REGISTER 9
72	(48)	4 RBGRS10	SAVE AREA FOR GENERAL REGISTER 10
76	(4C)	4 RBGRS11	SAVE AREA FOR GENERAL REGISTER 11
80	(50)	4 RBGRS12	SAVE AREA FOR GENERAL REGISTER 12
84	(54)	4 RBGRS13	SAVE AREA FOR GENERAL REGISTER 13
88	(58)	4 RBGRS14	SAVE AREA FOR GENERAL REGISTER 14
92	(5C)	4 RBGRS15	SAVE AREA FOR GENERAL REGISTER 15
96	(60)	4 TIRBEND	END OF TIRB
96	(60)	4 IRBEND	END OF IRB UNLESS OPTIONAL FIELDS RBNEXAV AND RBIQEWK ARE PRESENT

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
FOLLOWING TWO 8 BYTE FIELDS PRESENT ONLY IF REQUESTED			
96	(60)	4 RBNEXAV	ADDRESS OF NEXT AVAILABLE IQE (IRB)
100	(64)	4 RBIQEWK	IQE WORK SPACE, VARIABLE LENGTH, MAXIMUM SIZE IS 1984 BYTES (IRB)
96	(60)	4 RBEXSAVE	EXTENDED SAVE AREA FOR SVC ROUTINES (SVRB-BOTH)
144	(90)	4 SVRBEND	END OF SVRB (BOTH)

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	-64 (-40)	RBIQE2	24 (18)		
	24 (18)	RBIRBAER	11 X'04'		
	24 (18)	RBIRBAIQ	11 X'0C'		
IRBEND	96 (60)	RBLINK	28 (1C)		
PRBEND	32 (20)	RBLINKB	29 (1D)		
RBABEND	-8 X'20'	RBNEXAV	96 (60)		
RBABOPSW	4 (4)	RBOPSW	16 (10)		
RBASIR	-8 X'08'	RBPGMQ	24 (18)		
RBATNXIT	10 X'02'	RBPGMQ1	25 (19)		
RBATTN	11 X'20'	RBPPSAV	0 (0)		
RBCDATCH	12 X'20'	RBPPSAV1	1 (1)		
RBCDE	12 (C)	RBPRFXND	0 (0)		
RBCDE1	13 (D)	RBPRFXST	-8 (-8)		
RBCDFLGS	12 (C)	RBRQENR	11 X'00'		
RBCDLOAD	12 X'01'	RBRREQ	0 X'03'		
RBCDNODE	12 X'08'	RBRV001	-8 X'04'		
RBCDSYNC	12 X'04'	RBRV002	-8 X'02'		
RBCDXCTL	12 X'02'	RBRV003	-8 X'01'		
RBECBWT	11 X'01'	RBRV004	-7 (-7)		
RBEP	12 (C)	RBRV005	0 X'20'		
RBETXR	11 X'10'	RBRV006	0 X'10'		
RBEXRTNM	0 (0)	RBRV007	10 X'01'		
RBEXSAVE	96 (60)	RBRV008	12 X'80'		
RBFACTV	11 X'40'	RBRV009	12 X'40'		
RBFDYN	11 X'02'	RBRV010	12 X'10'		
RBFLAGS1	-8 (-8)	RBRV011	24 (18)		
RBFNsvRB	10 X'10'	RBSIZE	8 (8)		
RBFTCKPT	10 X'04'	RBSLOCK	-8 X'80'		
RBFTIRB	10 X'40'	RBSQE	24 (18)		
RBFTP	10 X'E0'	RBSQEA	25 (19)		
RBFTPRB	10 X'00'	RBSTAB	10 (A)		
RBFTSIRB	10 X'80'	RBSTAB1	10 (A)		
RBFTSVRB	10 X'C0'	RBSTAB2	11 (B)		
RBFTTIRB	10 X'60'	RBTCBNXT	11 X'80'		
RBGRSAVE	32 (20)	RBTMCMP	0 X'08'		
RBGRS0	32 (20)	RBTMFLD	0 (0)		
RBGRS1	36 (24)	RBTMIND2	0 X'04'		
RBGRS10	72 (48)	RBTMIND3	0 X'03'		
RBGRS11	76 (4C)	RBTMQUE	0 X'80'		
RBGRS12	80 (50)	RBTMTOB	0 X'40'		
RBGRS13	84 (54)	RBTTREQ	0 X'00'		
RBGRS14	88 (58)	RBTRSVRB	10 X'10'		
RBGRS15	92 (5C)	RBUPR	-8 X'10'		
RBGRS2	40 (28)	RBUSE	24 (18)		
RBGRS3	44 (2C)	RBUSIQE	11 X'10'		
RBGRS4	48 (30)	RBWAITP	10 X'08'		
RBGRS5	52 (34)	RBWCF	28 (1C)		
RBGRS6	56 (38)	RBWCSA	-4 (-4)		
RBGRS7	60 (3C)	RBWREQ	0 X'01'		
RBGRS8	64 (40)	RBXWAIT	-8 X'40'		
RBGRS9	68 (44)	SIRBEND	32 (20)		
RBINLNTH	-3 (-3)	SVRBEND	144 (90)		
RBINTCDA	-3 (-3)	TIRBEND	96 (60)		
RBINTCOD	-2 (-2)				
RBIQE	24 (18)				
RBIQEA	26 (1A)				
RBIQENR	11 X'08'				
RBIQETP	11 X'0C'				
RBIQEWK	100 (64)				
RBIQE1	25 (19)				

END OF RB

## Secondary Communication Vector Table

The secondary communication vector table (SCVT) can be used by nonresident routines to refer to routines used by the supervisor, by ABEND, and other control program components. The address of the SCVT is located in the CVTABEND field of the communication vector table.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 SCVTPGTM	ADDR OF EOT TIMER PURGE ROUTINE (IEAQPSTM)
4	(4)	4 SCVTPGWR	ADDR OF WTOR PURGE ROUTINE (IEECVPRG)
8	(8)	4 SCVTSPET	ADDR OF EOT SUBPOOL RELEASE (IEAQSPET)
12	(C)	4	RESERVED
16	(10)	4 SCVTERAS	ADDR OF EOT ERASE PHASE (IEAQERA)
20	(14)	4 SCVTQCBO	ADDR OF QCB ORIGIN (IEAQQCBO)
24	(18)	4 SCVTPGEQ	ADDR OF ENQ/DEQ ROUTINE (IEAOEQ01)
28	(1C)	4 SCVTRMBR	ADDR OF REGMAIN BRANCH ENTRY (RMBRANCH)
32	(20)	4 SCVTPGIO	ADDR OF I/O PURGE ROUTINE (IGC016)
36	(24)	4 SCVTRACE	ADDR OF POINTER TO TRACE ROUTINE
40	(28)	4 SCVTTASW	ADDR OF TASK SWITCHING ROUTINE (IEA0DS02)
44	(2C)	4 SCVTCDCCL	ADDR OF CDCONTROL IN LINK (IEAQCS02)
48	(30)	4 SCVTLFRM	LIST FORMAT FREEMAIN BRANCH ENTRY POINT (FMBRANCH)
52	(34)	4 SCVTPABL	ADDR OF REL LOADED PROGS IN EOT (IEAQABL)
56	(38)	4 SCVTDQTC	ADDR OF TCB DEQ ROUTINE IN EOT (IEADQTCB)
60	(3C)	4 SCVTHSKP	ADDR OF CDHKEEP IN EOT (CDHKEEP)
64	(40)	4 SCVTRPTR	ADDR OF TRACE TABLE POINTERS
68	(44)	4 SCVTGMBR	LIST FORMAT GETMAIN BRANCH ENTRY POINT (GMBRANCH)
72	(48)	4	RESERVED
76	(4C)	4	RESERVED
80	(50)	4	RESERVED
84	(54)	4	RESERVED
88	(58)	4	RESERVED
92	(5C)	4 SCVTCOMM	ADDR OF COMM TASK ROUTINE
96	(60)	4	RESERVED
100	(64)	4	RESERVED
104	(68)	4 SCVTRMTC	ADDR OF RMS TCB (IGFRMTCB)
108	(6C)	4 SCVTMSSQ	ORIGIN OF MAIN STORAGE QUEUES (GOVFLB)
112	(70)	4 SCVTCTCB	ADDR OF COMM TASK TCB (IEECVTCB)
116	(74)	4 SCVTETCB	ADDR OF SYSTEM ERROR TCB (IEAERTCB)
120	(78)	4 SCVTRXLQ	ADDR OF RECOVERY EXTENT LIST
124	(7C)	4 SCVTRQND	ADDR OF END OF I/O RQE TABLE (IECITSAR)
128	(80)	4	RESERVED
132	(84)	4 SCVTSVCT	ORIGIN OF SVC TABLE (IBMORG)
136	(88)	4 SCVTSTXP	ADDR OF STAX PURGE ROUTINE (IEAKJXP)
140	(8C)	4 SCVTTQE	ADDR OF TSO SUBSYSTEM'S TQE (IEATSELM)
144	(90)	4 SCVTRMSV	ADDR OF RMS SVC 85 INSTRUCTION (IORMSSVC)
148	(94)	4 SCVTSTAT	ADDR OF SVC STATUS ROUTINE (IGC07902)
152	(98)	4 SCVTQCBR	BRANCH ENTRY POINT TO GETMAIN/ FREEMAIN QUICKCELL ROUTINE (QCBRANCH)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
156	(9C)	4 SCVTABBR	ADDR OF R-TYPE FREEMAIN ENTRY POINT (ABBRANCH) THAT, WHEN UNSUCCESSFUL, RESULTS IN A REGISTER 15 RETURN CODE INSTEAD OF AN ENTRY TO ABTERM (ABBRANCH)
160	(A0)	4 SCVTAPIO	ENTRY POINT ADDRESS (IGC016AP) IN PURGE ROUTINE WHICH MUST BE USED WHEN SECOND EXITS HAVE BEEN BLOCKED FOR A SPECIFIED TASK. THIS ALLOWS PURGE TO PERFORM ITS FUNCTIONS WITHOUT HAVING TO EXPLICITLY WAIT ON A FIX REQUEST TO COMPLETE. (IGC016AP)
164	(A4)	4 SCVTPTRM	ADDR OF PAGING SUPERVISOR ROUTINE (IEAPTERM) TO QUIESCE ASYNCHRONOUS OR SYNCHRONOUS PAGING-IN, FIX, OR MIGRATION REQUESTS (IEAPTERM)
168	(A8)	4 SCVTHOOK	ADDR OF PAGING SUPERVISOR ROUTINE (PAGEHOOK) THAT ATTEMPTS TO RECOVER ITS ABENDS
172	(AC)	4 SCVTPIQE	ADDR OF RESIDENT SUBROUTINE IN EOT TO REMOVE IQE'S FROM ASYNCHRONOUS EXIT QUEUE (IEADQIQE)
176	(B0)	4 SCVTTMBR	BRANCH ENTRY POINT TO THE TIME ROUTINE TO OBTAIN THE TOD IN TIMER UNITS (IGC011)
180	(B4)	4 SCVTFOMG	ADDRESS OF PAGING SUPERVISOR FOE MERGE SUBROUTINE (IEAPSI5)

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	12 (C)				
	72 (48)				
	76 (4C)				
	80 (50)				
	84 (54)				
	88 (58)				
	96 (60)				
	100 (64)				
	128 (80)				
SCVTABBR	156 (9C)				
SCVTAPIO	160 (A0)				
SCVTCDCDCL	44 (2C)				
SCVTCOMM	92 (5C)				
SCVTCTCB	112 (70)				
SCVTDQTC	56 (38)				
SCVTERAS	16 (10)				
SCVTETCB	116 (74)				
SCVTFOMG	180 (B4)				
SCVTGMBR	68 (44)				
SCVTHOOK	168 (A8)				
SCVTHSKP	60 (3C)				
SCVTLFRM	48 (30)				
SCVTMSSQ	108 (6C)				
SCVTPABL	52 (34)				
SCVTPGEQ	24 (18)				
SCVTPGIO	32 (20)				
SCVTPGTM	0 (0)				
SCVTPGWR	4 (4)				
SCVTPIQE	172 (AC)				
SCVTPTRM	164 (A4)				
SCVTQCBO	20 (14)				
SCVTQCBR	152 (98)				
SCVTRACE	36 (24)				
SCVTRMBR	28 (1C)				
SCVTRMSV	144 (90)				
SCVTRMTC	104 (68)				
SCVTRPTR	64 (40)				
SCVTRQND	124 (7C)				
SCVTRXLQ	120 (78)				
SCVTSPET	8 (8)				
SCVTSTAT	148 (94)				
SCVTSTXP	136 (88)				
SCVTSVCT	132 (84)				
SCVTTASW	40 (28)				
SCVTTMBR	176 (B0)				
SCVTTQE	140 (8C)				

END OF SCVT



## System Management Facilities Control Table

The system management control area (SMCA) contains information used by the system management facilities (SMF) feature.

The SMCA contains the SMFDEFLT options, the SYS1.MANX and SYS1.MANY data set descriptions, SMF ECBs, and other information used by SMF modules.

The CVTSMCA field of the communication vector table points to the SMCA.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	1 SMCAOPT	SMF OPTIONS SELECTED SET AT INITIALIZATION TIME
	1...	.... SMCAOPT1	JOB ACCOUNTING
	.1..	.... SMCAOPT2	STEP ACCOUNTING
	..1.	.... SMCAEXT	DYNAMIC EXITS
	...1	.... SMCADSA	DATASET ACCOUNTING
	....	1... SMCVOL	VOLUME ACCOUNTING
	....	.1.. SMCARS01	RESERVED
	....	..1. SMCATDS	TEMPORARY DATA SETS
	....	...1 SMCAPGND	SMF FOREGROUND OPTS BIT ZERO- ABOVE BITS DESCRIBE BACKGROUND OPTIONS ONE - ABOVE BITS DESCRIBE FOREGROUND OPTIONS
1	(1)	1 SMCAMISC	MISCELLANEOUS INDICATORS
	1...	.... SMCAUSER	SMF RECORDING REQUESTED
	.1..	.... SMCAMAN	SYS1.MAN DATA SET PRESENT BITS 0 AND 1 MEAN 00 - NO RECORDING 01 - USER RECORD ONLY 10 - INVALID COMBINATION 11 - SMF AND USER RECORDING
	..1.	.... SMCAOPI	OPI = YES INDICATOR
	...1	.... SMCAPFRT	INDICATES PRIMARY TO BE OPENED
	....	1... SMCAPSDP	PSEUDO-DUMP SWITCH, (DEVICE SWITCHING ONLY)
	....	.1.. SMCADBSY	DUMP BUSY - USED BY WRITER ONLY
	....	..1. SMCABSW	BUFFER SWITCH 0 - LEFT HALF, 1 - RIGHT HALF
	....	...1 SMCADUMP	DUMP BUSY
2	(2)	2 SMCATOFF	SMF TIOT OFFSET FROM BEGINNING OF MASTER SCHEDULER TIOT
4	(4)	4 SMCATIOT	POINTER TO MASTER SCHEDULER TIOT
			THE FOLLOWING FIELDS ARE SET UP BY IPL INITIALIZATION
8	(8)	4 SMCAJWT	JOB WAIT TIME LIMIT - IN 26 USEC TIMER UNITS
12	(C)	4 SMCABUF	SMF BUFFER SIZE - IN BYTES AT INITIALIZATION, IT CONTAINS BUF=VALUE
12	(C)	4 SMCABSIZ	AFTER IPL, IT CONTAINS THE BUFFER WORKING SIZE
16	(10)	2 SMCASID	SYSTEM IDENTIFICATION
18	(12)	2 SMCAMD	CPU MODEL NUMBER
20	(14)	4 SMCABUFP	SMF STARTING BUFFER CORE POINTER
			SMF DEVICE CHARACTERISTICS PRIMARY OR CURRENT RECORDING DEVICE
24	(18)	6 SMCAPDEV	VOLUME SERIAL NUMBER
30	(1E)	1 SMCAPSTA	DEVICE STATUS
	1...	.... SMCAPNAV	DATASET NOT AVAILABLE
	.1..	.... SMCAPTAP	TAPE DEVICE
	..1.	.... SMCAPDA	DIRECT ACCESS DEVICE
	...1	.... SMCAPMTY	DATASET EMPTY SWITCH
	....	1... SMCAMOD	OPEN MOD INDICATOR
	....	.1.. SMCARS02	RESERVED
	....	..1. SMCAPUNT	DEVICE ADDRESS IS DEFINED
	....	...1 SMCAPVOL	VOLUME SERIAL NO. IS DEFINED
31	(1F)	3 SMCAPDAR	DEVICE ADDRESS - IN EBCDIC
34	(22)	1 SMCAPLBL	LABEL STATUS
	1...	.... SMCARS03	RESERVED
	.1..	.... SMCARS04	RESERVED
	..1.	.... SMCARS05	RESERVED
	...1	.... SMCARS06	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	....	1... SMCARS07	RESERVED
	....	.1.. SMCAPNSL	NON-STANDARD LABEL (NSL)
	....	..1. SMCAPSL	STANDARD LABEL (SL)
	....	...1 SMCAPNL	NO LABEL (NL)
35	(23)	1 SMCAXORY	EBCDIC X OR Y CORRESPONDING TO DATA SET THAT IS TO RECEIVE THIS ENTRY
36	(24)	4 SMCAPDCB	POINTER TO PRIME DCB
		ALTERNATE OR OTHER DEVICE	
40	(28)	6 SMCAADEV	VOLUME SERIAL NUMBER
46	(2E)	1 SMCASTA	DEVICE STATUS
47	(2F)	3 SMCAADAR	DEVICE ADDRESS
50	(32)	1 SMCAALBL	LABEL STATUS
51	(33)	1 SMCAYORX	EBCDIC X OR Y CORRESPONDING TO DATA SET THAT IS TO RECEIVE THIS ENTRY
52	(34)	4 SMCAADCB	POINTER TO ALTERNATE DCB
		SMF ECB'S	
56	(38)	4 SMCaweCB	WRITE REQUEST ECB. WAITED UPON BY THE SMF WRITER. POSTED BY IGC0008C WHEN A WRITE IS REQUESTED.
60	(3C)	4 SMCABECB	BUFFER ECB
64	(40)	4 SMCASGWR	COUNT OF RECORD SEGMENTS TO BE WRITTEN
68	(44)	4 SMCASGFT	COUNT OF RECORD SEGMENTS THAT FIT IN DATA SET
		MISCELLANEOUS POINTERS AND COMMUNICATION AREAS	
72	(48)	8 SMCawait	6 HOUR SYSTEM WAIT TIME FROM SUPERVISOR IN 26 USEC TIMER UNITS. FIRST WORD IS OVERFLOW FROM SECOND WORD
80	(50)	2 SMCaenty	THESE SWITCHES GOVERN ENTRY CONDITIONS FOR DEVICE SWITCHING/ALLOCATION/ OPENING ROUTINES
80	(50)	1 SMCaendi	A COMMUNICATION FIELD
	1... ..	SMCARS14	RESERVED
	.1.. ....	SMCARS15	RESERVED
	..1. ....	SMCARS16	RESERVED
	...1 ....	SMCARS17	RESERVED
	.... 1...	SMCARS18	RESERVED
	.... .1..	SMCARS19	RESERVED
	.... ..1.	SMCARS20	RESERVED
	.... ...1	SMCADSNF	IF ZERO, DATA SET (X OR Y) WAS FOUND. IF ONE, DATA SET (X OR Y) WAS NOT FOUND.
81	(51)	1 SMCaenop	ENTRY CODE THAT INDICATES WHICH LOAD OF SVC 83 HAS PASSED CONTROL TO CURRENT LOAD
82	(52)	1 SMCafopt	SMF OPTIONS IN TSO/SMF FOREGROUND. BIT SETTINGS ARE SAME AS SMCAOPT.
83	(53)	1 SMCaenal	*
84	(54)	4 SMCawrtp	OPTIMUM BUFFER WRITE POINT
		XCTL REMOTE LIST USED BY SVC 83	
88	(58)	4 SMCaxctl	POINTER TO XCTL NAME
92	(5C)	4	DCB POINTER (ALWAYS ZERO)
96	(60)	8 SMCaxnam	XCTL NAME

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
104	(68)	1 SMCASWA	SWITCHES
	1...	.... SMCASWAR	RESERVED
	.1..	.... SMCADSTR	DISASTER BIT
	..1.	.... SMCAOPFL	SMF DATASET OPEN FAILURE
	...1	.... SMCANADA	NEXT ALLOCATION MUST BE DIRECT ACCESS
	....	1... SMCANAVL	NEXT ALLOCATION MUST BE BY VOLUME
			SERIAL
	....	.1.. SMCAZEOD	HALT EOD BIT
	....	..1. SMCADSSP	DATASET SPACE CHECK BIT
	....	...1 SMCADSSW	DATASET SWITCH BIT
105	(69)	1 SMCASWB	SPARE
106	(6A)	1 SMCASWC	SPARE
107	(6B)	1 SMCASWD	SPARE
108	(6C)	8 SMCADSTM	TIME OF DISASTER
116	(74)	4 SMCADSCT	COUNT OF LOST RECORDS
120	(78)	2 SMCAPOST	RESERVED
122	(7A)	2 SMCATJID	CURRENT TASK TJID
124	(7C)	4 SMCARS21	RESERVED
128	(80)	4 SMCARS22	RESERVED
132	(84)	4 SMCATEXP	TIME OF MOST RECENT EXPIRATION OF TEN-MINUTE TQE
136	(88)	4 SMCAPGIN	NUMBER OF PAGE-INS
140	(8C)	4 SMCAPGOT	NUMBER OF PAGE-OUTS
144	(90)	4 SMCAPGRL	NUMBER OF PAGES RECLAIMED
148	(94)	4 SMCARGNS	NUMBER OF REGIONS SWAPPED IN AND OUT
152	(98)	4 SMCASPIN	NUMBER OF SWAP PAGE-INS
156	(9C)	4 SMCASPOT	NUMBER OF SWAP PAGE-OUTS
160	(A0)	4 SMCARGNM	NUMBER OF REGIONS MIGRATED
164	(A4)	4 SMCAPGM	NUMBER OF PAGES MIGRATED
168	(A8)	4 SMCAU83	ADDRESS OF SMF OUTPUT EXIT (IEFU83) TAKEN WHEN RECORDS ARE TO BE WRITTEN TO SMF DATA SET

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	92 (5C)	SMCARGNS	148 (94)		
SMCAADAR	47 (2F)	SMCARS01	0 X'04'		
SMCAADCB	52 (34)	SMCARS02	30 X'04'		
SMCAADEV	40 (28)	SMCARS03	34 X'80'		
SMCAALBL	50 (32)	SMCARS04	34 X'40'		
SMCABECB	60 (3C)	SMCARS05	34 X'20'		
SMCABSIZ	12 (C)	SMCARS06	34 X'10'		
SMCABSW	1 X'02'	SMCARS07	34 X'08'		
SMCABUF	12 (C)	SMCARS14	80 X'80'		
SMCABUFP	20 (14)	SMCARS15	80 X'40'		
SMCADBSY	1 X'04'	SMCARS16	80 X'20'		
SMCADSA	0 X'10'	SMCARS17	80 X'10'		
SMCADSCT	116 (74)	SMCARS18	80 X'08'		
SMCADSNF	80 X'01'	SMCARS19	80 X'04'		
SMCADSSP	104 X'02'	SMCARS20	80 X'02'		
SMCADSSW	104 X'01'	SMCARS21	124 (7C)		
SMCADSTM	108 (6C)	SMCARS22	128 (80)		
SMCADSTR	104 X'40'	SMCAGFT	68 (44)		
SMCADUMP	1 X'01'	SMCAGWR	64 (40)		
SMCAENAL	83 (53)	SMCASID	16 (10)		
SMCAENDI	80 (50)	SMCASPIN	152 (98)		
SMCAENOP	81 (51)	SMCASPOT	156 (9C)		
SMCAENTY	80 (50)	SMCASTA	46 (2E)		
SMCAEXT	0 X'20'	SMCASWA	104 (68)		
SMCAFGND	0 X'01'	SMCASWAR	104 X'80'		
SMCAFIRT	1 X'10'	SMCASWB	105 (69)		
SMCAFOPT	82 (52)	SMCASWC	106 (6A)		
SMCAJWT	8 (8)	SMCASWD	107 (6B)		
SMCAMAN	1 X'40'	SMCATDS	0 X'02'		
SMCAMDL	18 (12)	SMCATEXP	132 (84)		
SMCAMISC	1 (1)	SMCATIOT	4 (4)		
SMCAMOD	30 X'08'	SMCATJID	122 (7A)		
SMCANADA	104 X'10'	SMCATOFF	2 (2)		
SMCANAVL	104 X'08'	SMCAUSER	1 X'80'		
SMCAOPFL	104 X'20'	SMCAU83	168 (A8)		
SMCAOPI	1 X'20'	SMCAVOL	0 X'08'		
SMCAOPT	0 (0)	SMCAWAIT	72 (48)		
SMCAOPT1	0 X'80'	SMCAWECB	56 (38)		
SMCAOPT2	0 X'40'	SMCAWRTP	84 (54)		
SMCAPDA	30 X'20'	SMCAXCTL	88 (58)		
SMCAPDAR	31 (1F)	SMCAXNAM	96 (60)		
SMCAPDCB	36 (24)	SMCAXORY	35 (23)		
SMCAPDEV	24 (18)	SMCAYORX	51 (33)		
SMCAPGIN	136 (88)	SMCAZEOD	104 X'04'		
SMCAPGM	164 (A4)				
SMCAPGOT	140 (8C)				
SMCAPGRL	144 (90)				
SMCAPLBL	34 (22)				
SMCAPMTY	30 X'10'				
SMCAPNAV	30 X'80'				
SMCAPNL	34 X'01'				
SMCAPNSL	34 X'04'				
SMCAPOST	120 (78)				
SMCAPSDP	1 X'08'				
SMCAPSL	34 X'02'				
SMCAPSTA	30 (1E)				
SMCAPTAP	30 X'40'				
SMCAPUNT	30 X'02'				
SMCAPVOL	30 X'01'				
SMCARGNM	160 (A0)				

END OF SMCA



## Task Control Block

The task control block (TCB) serves as a repository for information and pointers associated with the task in process. Various components of the control program place information in the TCB and obtain information or its location by reference to it.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
TCB PREFIX			
-32	(-20)	32 TCBFRS	FLOATING POINT REGISTER SAVE AREA
-32	(-20)	8 TCBFRS0	SAVE AREA FOR FLOATING POINT REGISTER 0
-24	(-18)	8 TCBFRS2	SAVE AREA FOR FLOATING POINT REGISTER 2
-16	(-10)	8 TCBFRS4	SAVE AREA FOR FLOATING POINT REGISTER 4
-8	(-8)	8 TCBFRS6	SAVE AREA FOR FLOATING POINT REGISTER 6
TCB PROPER			
0	(0)	4 TCBRBP	PTR TO TOP RB ON RB CHAIN
4	(4)	4 TCBPIE	ADDR OF PROGRAM INTERRUPT ELEMENT (PIE)
4	(4)	1 TCBPMASK	SPIE BITS
	....	1111 TCBPM	PROGRAM MASK AT TIME OF SPIE INITIATION. MASK RESTORED AT TIME OF SPIE NULLIFICATION.
5	(5)	3 TCBPIEA	ADDRESS OF PROGRAM INTERRUPT ELEMENT (PIE)
8	(8)	4 TCBDEB	ADDR OF THE DEB QUEUE
12	(C)	4 TCBTIO	ADDR OF THE TASK I/O TABLE (TIOT)
16	(10)	4 TCBCMP	TASK COMPLETION CODE
16	(10)	1 TCBCMPF	COMPLETION FLAGS
	1... ..	TCBCREQ	A DUMP HAS BEEN REQUESTED
	.1.. ..	TCBCSTEP	A STEP ABEND HAS BEEN REQUESTED
	..1. ....	TCBCPP	SECOND ABEND LOAD OVERLAID PP STORAGE (VS1) FOR FIRST LOAD OVERLAY SEE TCBCFLGS
	...1 ....	TCBSTCC	COMPLETION CODE IS NOT TO BE STORED IN TCBCMPC SHOULD AN ABEND BE ENCOUNTERED. THIS PREVENTS AN OVERLAY OF ORIGINAL COMPLETION CODE.
	.... 1...	TCBCDBL	A DOUBLE ABEND HAS OCCURRED
	.... .1..	TCBCWTO	DUMP MSG TO BE ISSUED TO OPR
	.... ..1.	TCBCIND	SCHEDULER TO PRINT INDICATIVE DUMP
	.... ...1	TCBCMSG	ABEND MSG PROVIDED TO BE PRINTED BY ABDUMP
17	(11)	3 TCBCMPC	SYSTEM (FIRST 12 BITS) AND USER (SECOND 12) COMPLETION CODES
20	(14)	4 TCBTRN	ADDR OF CONTROL CORE TABLE
20	(14)	1 TCBABF	FLAG BYTE
	1... ..	TCBMOD91	RESERVED
	.1.. ..	TCBNOCHK	SUPPRESS TAKING CHECKPOINTS FOR THIS STEP (JOB STEP TCB)
	..1. ....	TCBGRPH	GRAPHICS FOREGROUND JOB OR GRAPHIC JOB PROCESSOR
	...1 ....	TCBRSV01	RESERVED
	.... 1...	TCBTCPP	TCAM POST-PENDING (RORI)
	.... .1..	TCBTCP	TEST TASK - USED BY TEST SVC
	.... ..1.	TCBOLTEP	OLTEP FUNCTIONS REQUIRE CLEAN-UP BEFORE ABNORMAL TERMINATION CAN BE INVOKED
	.... ...1	TCBRSV02	RESERVED
21	(15)	3 TCBTRNB	ADDR OF CONTROL CORE TABLE
24	(18)	4 TCBMSS	ADDR OF THE BOUNDARY BOX (VS1) ADDR OF LAST SPQE ON MSS QUEUE (VS2)
24	(18)	1 TCBRSV03	RESERVED
25	(19)	3 TCBMSSB	ADDR OF THE BOUNDARY BOX (VS1) ADDR OF LAST SPQE ON MSS QUEUE (VS2)



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>	
28	(1C)	1	TCBPKF	STORAGE PROTECTION KEY
	xxxx	....	TCBFLAG	PROTECTION KEY
	....	0000	TCBZERO	ZERO
29	(1D)	5	TCBFLGS	FLAGS
29	(1D)	1	TCBFLGS1	FIRST TCB FLAG BYTE
	1...	....	TCBFA	ABNORMAL TERMINATION IN PROGRESS
	.1..	....	TCBFE	NORMAL TERMINATION IN PROGRESS
	..1.	....	TCBFERA	ENTER ABEND ERASE ROUTINE WHEN IN CONTROL AGAIN (VS2)
	...1	....	TCBRV04	RESERVED
	....	1...	TCBPDUMP	PREVENT DUMP INDICATOR (VS2)
	....	.1..	TCBFT	TOP TASK IN TREE BEING ABTERMED (VS2)
	....	..1.	TCBFS	ABTERM DUMP COMPLETED (VS2) ABEND OVERLAID PROBLEM PROGRAM STORAGE (VS1)
	....	...1	TCBFX	PROHIBIT ASYNCHRONOUS EXIT QUEUEING
30	(1E)	1	TCBFLGS2	SECOND FLAG BYTE
	1...	....	TCBFOINP	A VALUE OF 1 INDICATES THAT THE TASK IS ABENDING AND IS IN THE PROCESS OF (1) OPEN FOR DUMP DATA SET PROCESSING, (2) CLOSE FOR USER DATA SET OR (3) PURGE FOR ENQ'ED RESOURCES. THIS BIT IS USED IN CONJUNCTION WITH TCBSTACK. (VS2)
	.1..	....	TCBFSTI	SECOND JOB STEP INTERVAL HAS EXPIRED (VS2 INITIATOR TCB)
	..1.	....	TCBFABOP	A VALUE OF 1 INDICATES THAT THE SYSABEND DUMP DATA SET HAS BEEN OPENED FOR ABEND. A VALUE OF 0 INDICATES THAT THE SYSUDUMP DUMP DATA SET WAS OPENED. THIS BIT IS ONLY USED FOR THE JOB STEP TCB AND IS USED IN CONJUNCTION WITH TCBFDSOP BIT. (OS/V2)
	...1	....	TCBFSMC	TASK HAS ISSUED SYSTEM MUST COMPLETE AND SET ALL OTHER TASKS IN THE SYSTEM NONDISPATCHABLE
	....	1...	TCBFJMC	TASK HAS ISSUED STEP MUST COMPLETE AND TURNED OFF ALL OTHER TASKS IN THE STEP
	....	.1..	TCBFDSOP	SYSABEND OPEN FOR JOBSTEP (VS2)
	....	..1.	TCBFETXR	ETXR TO BE SCHEDULED
	....	...1	TCBFTS	MEMBER OF TIME-SLICING GROUP
31	(1F)	1	TCBFLGS3	THIRD FLAG BYTE
	1...	....	TCBFSM	ALL PSW'S IN SUPERVISOR STATE (VS2)
	.1..	....	TCBADINP	USED IN CONJUNCTION WITH TCBONDSP. FLAG INDICATING THAT ABDUMP IS CURRENTLY PROCESSING FOR SOME TASK IN JOB STEP. A HIGHER LEVEL TASK IS NOT ALLOWED TO ENTER MAINLINE ABEND PROCESSING IF THIS BIT IS SET IN JOB STEP TCB UNLESS JOB STEP TASK IS FAILING. BIT SET ONLY IN JOB STEP TCB AND TASK INVOKING ABDUMP.
	..1.	....	TCBABTRM	ABTERM BIT TO PREVENT MULTIPLE ABENDS (VS2)
	...1	....	TCBABGM	GETMAIN IS TO DEFAULT LSQA REQUESTS TO SQA REQUESTS WHEN REQUEST CANNOT BE SATISFIED FROM LSQA
	....	1...	TCBRV06	RESERVED (VS2)
	....	.1..	TCBRV07	RESERVED (VS2)
	....	..1.	TCBRV08	RESERVED (VS2)
	....	...1	TCBDWSTA	THIS TASK WAS DETACHED WITH STAE=YES OPTION (VS2)
32	(20)	1	TCBFLGS4	NONDISPATCHABILITY FLAGS (VS2)
	1...	....	TCBNDUMP	ABDUMP NON-DISP. INDICATOR
	.1..	....	TCBSE1	SER1 NON-DISP. INDICATOR
	..1.	....	TCBRQENA	I/O RQE'S EXHAUSTED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
...1	....	TCBHNDSP	TASK OR JOB STEP IS MOMENTARILY 'FROZEN' UNTIL THE REQUIRED RESOURCES ARE AVAILABLE. THE BIT IS SET THROUGH THE USE OF THE 'STATUS' SVC
....	1...	TCBUXNDV	TASK IS TEMPORARILY NON-DISPATCHABLE BECAUSE SMF TIME LIMIT OR SYSOUT LIMIT USER EXIT ROUTINE IS BEING EXECUTED FOR THIS STEP (VS2)
....	.1..	TCBMPCVQ	RESERVED
....	..1.	TCBMPCND	RESERVED
....	...1	TCBONDSP	TASK TERMINATING AND NONDISPATCHABLE BECAUSE EITHER OPEN FOR DUMP DATA SET IS IN PROCESS OR CLOSE BY ABEND IS IN PROCESS
33	(21)	1 TCBFLGS5	MORE NONDISPATCHABILITY FLAGS
	1...	.... TCBFCD1	TASK TERMINATED (VS2)
	.1..	.... TCBAWBF	ABNORMAL WAIT (VS2)
	.1..	.... TCBUXNDF	TASK IS TEMPORARILY NONDISPATCHABLE BECAUSE SMF TIME LIMIT OR SYSOUT LIMIT USER EXIT ROUTINE IS BEING EXECUTED FOR THIS STEP. BIT IS ONE IN ALL TCB'S EXCEPT JOB STEP TCB. (VS1)
	..1.	.... TCBPAGE	TASK NONDISPATCHABLE DUE TO EXCESSIVE PAGING RATE
	...1	.... TCBANDSP	TASK NONDISPATCHABLE TEMPORARILY BECAUSE ATTACHED WITH DISP=NO OPERAND
	....	1... TCBSYS	ANOTHER TASK IS IN SYSTEM MUST COMPLETE STATUS OR A SUMMARY BIT FOR FIELD TCBSYSCT (VS2)
	....	.1.. TCBSTP	ANOTHER TASK IN JS IS IN STEP MUST COMPLETE STATUS (VS2)
	....	..1. TCBFCD1	INITIATOR WAITING FOR REGION (VS2)
	....	...1 TCBPNDSP	PRIMARY NONDISPATCHABILITY FLAG (SECONDARY NDSP FLAG TCBNDSP2 SET)
34	(22)	1 TCBLMP	TASK LIMIT PRIORITY (VS2) ENQUEUE COUNT (VS1)
35	(23)	1 TCBDSP	DISPATCHING PRIORITY
36	(24)	4 TCBLLS	ADDR OF LAST LLE IN LOAD LIST (VS2) ADDR OF LAST RB FOR PROGRAM LOADED VIA LOAD (VS1)
40	(28)	4 TCBJLB	ADDR OF JOBLIB DCB
44	(2C)	4 TCBJPQ	ADDR OF LAST CDE FOR JPA CONTROL QUEUE (VS2)
44	(2C)	1 TCBPURGE	PURGE FLAGS (VS2)
	1...	.... TCBJPQF	JPQ PURGE FLAG
	.1..	.... TCBRSV09	RESERVED
	..1.	.... TCBRSV10	RESERVED
	...1	.... TCBRSV11	RESERVED
	....	1... TCBRSV12	RESERVED
	....	.1.. TCBRSV13	RESERVED
	....	..1. TCBRSV14	RESERVED
	....	...1 TCBRSV15	RESERVED
45	(2D)	3 TCBJPQB	ADDR OF LAST CDE FOR JPA CONTROL QUEUE (VS2)
48	(30)	64 TCBGRS	GENERAL REGISTER SAVE AREA
48	(30)	4 TCBGRS0	SAVE AREA FOR GENERAL REGISTER 0
52	(34)	4 TCBGRS1	SAVE AREA FOR GENERAL REGISTER 1
56	(38)	4 TCBGRS2	SAVE AREA FOR GENERAL REGISTER 2

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
60	(3C)	4 TCBGRS3	SAVE AREA FOR GENERAL REGISTER 3
64	(40)	4 TCBGRS4	SAVE AREA FOR GENERAL REGISTER 4
68	(44)	4 TCBGRS5	SAVE AREA FOR GENERAL REGISTER 5
72	(48)	4 TCBGRS6	SAVE AREA FOR GENERAL REGISTER 6
76	(4C)	4 TCBGRS7	SAVE AREA FOR GENERAL REGISTER 7
80	(50)	4 TCBGRS8	SAVE AREA FOR GENERAL REGISTER 8
84	(54)	4 TCBGRS9	SAVE AREA FOR GENERAL REGISTER 9
88	(58)	4 TCBGRS10	SAVE AREA FOR GENERAL REGISTER 10
92	(5C)	4 TCBGRS11	SAVE AREA FOR GENERAL REGISTER 11
96	(60)	4 TCBGRS12	SAVE AREA FOR GENERAL REGISTER 12
100	(64)	4 TCBGRS13	SAVE AREA FOR GENERAL REGISTER 13
104	(68)	4 TCBGRS14	SAVE AREA FOR GENERAL REGISTER 14
108	(6C)	4 TCBGRS15	SAVE AREA FOR GENERAL REGISTER 15
112	(70)	4 TCBFSA	ADDR OF FIRST PROBLEM PROGRAM SAVE AREA
112	(70)	1 TCBQEL	ENQUEUE COUNT (VS2)
113	(71)	3 TCBFSAB	ADDR OF FIRST PROBLEM PROGRAM SAVE AREA
116	(74)	4 TCBTCB	ADDR OF NEXT LOWER PRIRITITY TCB ON READY QUEUE
120	(78)	4 TCBTME	ADDRESS OF TIMER QUEUE ELEMENT
124	(7C)	4 TCBJSTCB	ADDRESS OF FIRST JOBSTEP TCB OR OF THIS TCB IF KEY ZERO (VS2)
124	(7C)	1 TCBRSV16	RESERVED
125	(7D)	3 TCBJSTCA	ADDRESS OF FIRST JOBSTEP TCB OR OF THIS TCB IF KEY ZERO (VS2)
128	(80)	4 TCBNTC	ADDR OF NEXT SISTER TCB (ZERO IF THIS IS LAST SUBTASK)
132	(84)	4 TCBOTC	ADDR OF MOTHER TCB
136	(88)	4 TCBLTC	ADDR OF LAST DAUGHTER TCB ( ZERO IF THIS IS IT
140	(8C)	4 TCBIQE	ADDR OF IQE FOR EXTR SCHEDULING
144	(90)	4 TCBECEB	ADDR OF ECB TO BE POSTED UPON TERMINATION
148	(94)	1 TCBTSFLG	TIME SHARING FLAGS
	1... ..	TCBTSTSK	SWAPPED TS TASK
	.1.. ..	TCBSTPPR	TASK SHOULD BE MADE NDSP VIA TCBSTPP WHEN IT IS NO LONGER RUNNING A PRIVILEGED PGM
	..1. ....	TCBATT	TASK SHOULD NOT HAVE ATTENTION EXITS SCHEDULED ON IT BY EXIT EFFECTOR
	...1 ....	TCBTIOTG	PURGE TGET/TPUT AFTER ATTENTION
	.... 1...	TCBRSV17	RESERVED
	.... .1..	TCBRSV18	RESERVED
	.... ..1.	TCBDYDSP	RESERVED
	.... ...1	TCBCPUBN	RESERVED
149	(95)	1 TCBSTPCT	NUMBER OF SETTASK STARTS WHICH MUST BE ISSUED BEFORE TASK IS MADE DISPATCHABLE - FIELD NOT RESTRICTED TO TSO
150	(96)	1 TCBTSLP	LIMIT PRIORITY OF TS TASK
151	(97)	1 TCBTSDP	DISPATCHING PRIORITY OF TS TASK

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
152	(98)	4 TCBPQE	POINTER TO DPQE MINUS 8 FOR THE JOB STEP (VS2)
156	(9C)	4 TCBAQE	LIST ORIGIN OF AQE(S) FOR THIS TASK (VS2)
160	(A0)	4 TCBSTAB	ADDR OF STAE CONTROL BLOCK
160	(A0)	1 TCBNSTAE	STAE FLAGS
	1... ..	TCBSTABE	ABEND ENTERED BECAUSE OF ERROR IN STAE PROC
	.1.. ..	TCBQUIES	STAE INVOKED PURGE I/O ROUTINE WITH QUIESCE I/O OPTION
	..1. ....	TCB33E	A 33E ABEND HAS OCCURRED FOR TASK (VS2)
	...1 ....	TCBRSV19	RESERVED (VS2)
	.... 1...	TCBHALT	PURGE I/O ROUTINE DID NOT SUCCESSFULLY QUIESCE I/O BUT I/O WAS HALTED
	.... .1..	TCBSYNCH	SYNCH ISSUED BY ASIR TO SCHEDULE EXIT ROUTINE (VS2)
	.... ..1.	TCBNPURG	VALID RETRY WITHOUT AN RB PURGE (VS2)
	.... ...1	TCBSTCUR	STAE RECURSION VALID (VS2)
161	(A1)	3 TCBSTABB	ADDR OF STAE CONTROL BLOCK
164	(A4)	4 TCBTCT	ADDR OF TCT
164	(A4)	1 TCBTCTGF	FLAG BYTE FOR TIMING CONTROL TABLE
	1... ..	TCBSMFGF	IF ZERO, THE TCT CORE TABLE IS NOT TO BE UPDATED BY GETMAIN/FREEMAIN. IF ONE, THE TCT CORE TABLE IS TO BE UPDATED BY GETMAIN/FREEMAIN.
	.1.. ....	TCBRSV20	RESERVED
	..1. ....	TCBRSV97	RESERVED
	...1 ....	TCBRSV98	RESERVED
	.... 1...	TCBRSV99	RESERVED
	.... .1..	TCBRSV9A	RESERVED
	.... ..1.	TCBRSV9B	RESERVED
	.... ...1	TCBRSV9C	RESERVED
165	(A5)	3 TCBTCTB	ADDR OF TCT
168	(A8)	4 TCBUSER	FIELD AVAILABLE TO THE USER
172	(AC)	4 TCBSCNDY	SECONDARY NONDISPATCHABILITY FLAGS - (IF ANY BIT IN THESE BYTES IS ON, THEN SO IS THE PRIMARY NDSP FLAG)
172	(AC)	4 TCBNDSP	SAME AS TCBSCNDY
172	(AC)	1 TCBNDSP0	BYTE 0
173	(AD)	1 TCBNDSP1	BYTE 1
	1... ..	TCBDARTN	TASK TEMPORARILY NONDISPATCHABLE - (DAR)
	.1.. ....	TCBDARPN	TASK PERMANENTLY NONDISPATCHABLE - (DAR)
	..1. ....	TCBRSTND	TASK TEMPORARILY NONDISPATCHABLE - (RMS/SER)
	...1 ....	TCBRSPND	TASK PERMANENTLY NONDISPATCHABLE - (RMS/SER) (IF THIS FLAG IS ON THEN THE PREVIOUS ONE MUST BE TOO)
	.... 1...	TCBDDRND	TASK IS IN DEVICE ALLOCATION AND DYNAMIC DEVICE RECONFIGURATION (DDR) HAS MADE IT NONDISPATCHABLE
	.... ..1..	TCBTPSP	RESERVED
	.... ..1.	TCBRSV21	RESERVED
	.... ...1	TCBRSV22	RESERVED
174	(AE)	1 TCBNDSP2	BYTE 2
	1... ..	TCBABD	SET BY ABDUMP - (VS1)
	.1.. ....	TCBSTPP	TASK NDSP BECAUSE STOPPED BY SETTASK
	..1. ....	TCBNSVC	TASK NDSP BECAUSE SVC DUMP IS EXECUTING FOR ANOTHER TASK
	...1 ....	TCBNDS	TASK NDSP BECAUSE BEING SWAPPED OUT

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
	.... 1...	TCBIWAIT	TASK NDSP DUE TO INPUT WAIT
	.... .1..	TCBOWAIT	TASK NDSP DUE TO OUTPUT WAIT
	.... ..1.	TCBDSS	DSS HAS SET THE TASK NON-DISPATCHABLE
	.... ...1	TCBABE	ABEND ENTERED FOR THIS TASK - WHILE SYSABEND DCB OPEN FOR ANOTHER TASK (VS1)
175	(AF) 1	TCBNDSP3	BYTE 3
	1... ....	TCBLJSND	TASK IS ABENDING AND NONDISPATCHABLE BECAUSE IT HAS A JOB STEP SUBTASK. TCBONDSP MUST ALSO BE ON.
	.1.. ....	TCBSTAND	TASK HAS BEEN SET NONDISPATCHABLE WHILE ASIR IS SCHEDULING AN EXIT ROUTINE FOR SOME OTHER TASK IN JOB STEP
	..1. ....	TCBRV23	RESERVED (VS2)
	...1 ....	TCBRV24	RESERVED
	.... 1...	TCBRV25	RESERVED
	.... .1..	TCBRV26	RESERVED
	.... ..1.	TCBRV27	RESERVED
	.... ...1	TCBRV28	RESERVED
176	(B0) 4	TCBMDIDS	RESERVED FOR MODEL-DEPENDENT SUPPORT AND FOR IBM PROPRIETARY PROGRAMMING SUPPORT
180	(B4) 4	TCBJSCB	ADDR OF JOB STEP CONTROL BLOCK
180	(B4) 1	TCBRECDE	ABEND RECURSION BYTE
	1... ....	TCBREC	VALID REENTRY TO ABEND INDICATED IF NON-ZERO VALUE IN FOLLOWING 7 BITS
	.... ...1	TCBOPEN	OPEN DUMP DATA SET
	.... ..1.	TCBCLOSD	CLOSE DIRECT SYSOUT ON TAPE
	.... ..11	TCBCLOSE	CLOSE OPEN DATA SETS
	.... .1..	TCBCLOSF	RESERVED
	.... .1.1	TCBGREC	GRAPHICS
	.... .111	TCBADUMP	ABDUMP
	.... 1...	TCBPTAXE	PURGE TAXE
	.... 1..1	TCBMESG	MESSAGE RECURSION
	.... 1.1.	TCBDYNAM	DD-DYNAM TIOT CLEANUP
	.... 11..	TCBQTIP	PURGE TSO INTERPARTITION POSTS
	.... 11.1	TCBTCAMP	PURGE TCAM INTERPARTITION POSTS
	.... 1111	TCBSAVCD	ASIR RECURSION. SAVE OLD COMP CODE
	...1 ....	TCBTYP1W	TYPE 1 MESSAGE WRITE TO PROGRAMMER
	..11 ....	TCBNOSTA	STAE/STAI NOT TO BE HONORED
	..11 ...1	TCBSTRET	RETURN FROM STEAL CORE
	..11 ..1.	TCBCONVR	CONVERT TO STEP ABEND
	..11 ..11	TCBDARET	RETURN FROM DAR
	..11 .1..	TCBTYP1R	RETURN FROM TYPE 1 MESSAGE MODULE
	..11 .1.1	TCBNEWRB	ABEND ISSUED SVC 13 TO XCTL TO A NON-ABEND MODULE
	.1.. ....	TCBMCCNS	INDICATES THAT A MUST COMPLETE TASK HAS ABENDED WITHOUT ENOUGH STORAGE FOR 2 RB'S FOR A WTOR ASKING WHETHER THE TASK'S RESOURCES ARE CRITICAL OR NOT. THE RESOURCES ARE ASSUMED TO BE CRITICAL, WHICH WILL CAUSE THE PARTITION TO BE MARKED PERMANENTLY NON-DISPATCHABLE. (OS/VS1)
181	(B5) 3	TCBJSCBB	ADDR OF JOB STEP CONTROL BLOCK
184	(B8) 2	TCBDDEXC	COUNT OF THE NUMBER OF TIMES A DYNAMIC DISPATCHING TASK HAS ITS TIME SLICE EXPIRE (VS1)
186	(BA) 2	TCBDDWTC	COUNT OF THE NUMBER OF TIMES A DYNAMIC DISPATCHING TASK IS NOT INTERRUPTED BY TIME SLICE BETWEEN WAITS (VS1)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
188	(BC)	4 TCBIOBRC	ADDRESS OF IOB RESTORE CHAIN FOR I/O QUIESCED BY EOT
192	(C0)	4 TCBRV30	RESERVED
196	(C4)	4 TCBEXT1	ADDRESS OF OS-VS COMMON TCB EXTENSION
196	(C4)	1 TCBRV32	RESERVED
197	(C5)	3 TCBEXT1A	ADDRESS OF OS-VS COMMON TCB EXTENSION
		VS1 - VS2	COMMON SECTION
200	(C8)	4 TCBBITS	FLAG BYTES
200	(C8)	1 TCBNDSP4	SECONDARY NONDISPATCHABILITY FLAGS COMMON TO VS1 AND VS2 . COORDINATED WITH PRIMARY NONDISPATCHABILITY FLAG TCBPNDSP.
	1...	.... TCBRV86	RESERVED
	.1..	.... TCBRV87	RESERVED
	..1.	.... TCBRV88	RESERVED
	...1	.... TCBRV89	RESERVED
	....	1... TCBRV90	RESERVED
	....	.1.. TCBRV91	RESERVED
	....	..1. TCBRV92	RESERVED
	....	...1 TCBRV93	RESERVED
201	(C9)	1 TCBNDSP5	SECONDARY NONDISPATCHABILITY FLAGS UNIQUE TO VS1 OR VS2 . COORDINATED WITH PRIMARY NONDISPATCHABILITY FLAG TCBPNDSP.
	1...	.... TCBRV94	RESERVED
	.1..	.... TCBRV95	RESERVED
	..1.	.... TCBRV74	RESERVED
	...1	.... TCBRV75	RESERVED
	....	1... TCBRV76	RESERVED
	....	.1.. TCBRV77	RESERVED
	....	..1. TCBRV78	RESERVED
	....	...1 TCBRV79	RESERVED
202	(CA)	1 TCBFLGS6	TASK-RELATED FLAGS
	1...	.... TCBRV	PARTITION IS FIXED. VIRTUAL ADDRESSES IN PARTITION ARE REAL.
	.1..	.... TCBPIE17	PAGE FAULT INTERRUPT IS TO BE PASSED TO THE TASK'S INTERRUPT EXIT AND AN 8-BYTE PICA IS IN EFFECT FOR THIS TASK (VS2)
	..1.	.... TCBCPU	TASK IS CPU-BOUND MEMBER OF APG (VS2)
	...1	.... TCBSVPLK	TASK SCHEDULED FOR ABTERM WHILE OWNING SUPERVISOR LOCK (VS2)
	....	1... TCBOLSQA	TASK OWNS SPQE FOR LSQA (VS2)
	....	.1.. TCBMIGR	REGION SELECTED FOR MIGRATION FROM PRIMARY PAGING DEVICE (VS2)
	....	..1. TCBAPG	TASK IS IN APG (VS2)
	....	...1 TCBNTJS	JOB STEP TASK BUT NOT HIGHEST IN FAILING TREE (VS2)
203	(CB)	1 TCBFLGS7	TASK-RELATED FLAGS
	1...	.... TCBGPECB	TASK IS IN AN ECB WAIT FOR A GETPART (VS2)
	.1..	.... TCBRV33	RESERVED (VS2)
	..1.	.... TCBRV34	RESERVED (VS2)
	...1	.... TCBSTACK	SET IN JOB STEP TCB TO INDICATE THAT A TASK IN THE JOB STEP IS IN SERIAL ABEND PROCESSING. USED IN CONJUNCTION WITH TCBFOINP. (VS2)
	....	1... TCBRV35	RESERVED
	....	.1.. TCBRSTSK	RESIDENT SYSTEM TASK (VS2)
	....	..1. TCBADMP	ALL OTHER TASKS IN JOB STEP HAVE BEEN SET NONDISPATCHABLE BY ABDUMP. THIS BIT IS SET TO

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			CONTROL JOB STEP DURING THE DUMPING PROCESS. (VS2)
	....	...1 TCBGTOFM	GTF TRACING TEMPORARILY DISABLED
204	(CC)	1 TCBDAR	- DAMAGE ASSESSMENT ROUTINE FLAGS
	1...	.... TCBDARP	PRIMARY DAR RECURSION - - DAR FAILURE WHILE WRITING CORE IMAGE
	.1..	.... TCBDARS	SECONDARY DAR RECURSION - DAR FAILURE WHILE ATTEMPTING TO REINSTATE FAILING REGION/PARTITION
	..1.	.... TCBDARD	A DUMP HAS BEEN REQUESTED FOR A WRITER OR SCHEDULER ABEND AND THE USER HAS PROVIDED NO SYSABEND DD CARD (VS1)
	...1	.... TCBDARC	RESERVED
	...1	.... TCBDARMC	DAR HAS BEEN ENTERED TO HANDLE A VALID RECURSION IN MUST COMPLETE STATUS THROUGH ABEND
	....	1... TCBDARO	SYSTEM ERROR TASK IS FAILING. DAR DUMP SHOULD NOT REQUEST ANY ERP PROCESSING
	....	.1.. TCBDARWT	WTO IN PROCESS FOR DAR
	....	..1. TCBRV36	RESERVED
	....	...1 TCBEVSVC	SVC DUMP IS EXECUTING FOR THIS TASK
205	(CD)	1 TCBRV37	RESERVED
206	(CE)	1 TCBSYSCT	COUNT FOR THE OUTSTANDING NUMBER OF 'SYSTEM MUST COMPLETE' REQUESTS
207	(CF)	1 TCBSTMCT	COUNT FOR OUTSTANDING NUMBER OF 'STEP MUST COMPLETE' REQUESTS
208	(D0)	4 TCBEXT2	SAME AS TCBEXT2A
208	(D0)	1 TCBRV39	RESERVED
209	(D1)	3 TCBEXT2A	ADDRESS OF VS1 - VS2 COMMON EXTENSION
		VS2 TCB OVERLAY	
212	(D4)	4 TCBXTENT	REGION SEGMENT INFORMATION
212	(D4)	1 TCBRV40	RESERVED
213	(D5)	1 TCBSTI	SEGMENT INDEX TO FIRST SEGMENT IN REGION. ZERO IF VIRTUAL ADDRESSES IN REGION ARE REAL.
214	(D6)	1 TCBSC	COUNT FIELD INDICATING THE NUMBER OF SEGMENTS FOR THIS TASK'S REGION. ZERO IF VIRTUAL ADDRESSES IN REGION ARE REAL.
215	(D7)	1 TCBLSQLA	SEGMENT INDEX TO FIRST LSQA SEGMENT FOR THE TASK'S REGION
216	(D8)	4 TCBTIRB	ADDRESS OF TIRB FOR TASK
220	(DC)	4 TCBBACK	ADDRESS OF PREVIOUS TCB ON READY QUEUE. ZERO IN TOP TCB.
224	(E0)	4 TCBLSQLP	ADDRESS OF SPQE FOR LSQA
228	(E4)	4 TCBIOTIM	TIME IN 16-MICROSECOND UNITS BETWEEN TIME ORIGINAL TIME SLICE INTERVAL WAS ASSIGNED AND TIME APG TASK WENT INTO VOLUNTARY WAIT
232	(E8)	4 TCBTMSAV	TIME IN 16-MICROSECOND UNITS REMAINING FROM ORIGINAL TIME SLICE INTERVAL WHEN APG TASK WAS LAST DISPATCHED
236	(EC)	1 TCBABCUR	ABEND RECURSION BYTE
237	(ED)	1 TCBRVAA	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
238	(EE)	1 TCBTID	TASK ID NUMBER
	1111	1111 TCBPAGID	ID FOR PAGING SUPERVISOR TASK
	1111	1110 TCBSYERR	ID FOR SYSTEM ERROR TASK
	1111	1101 TCBCOMM	ID FOR COMMUNICATIONS TASK
	1111	1100 TCBIORMS	ID FOR I/O RMS TASK
	1111	1011 TCBMASTR	ID FOR MASTER SCHEDULER TASK
	1111	1010 TCBJES	ID FOR JES MONITOR TASK
	1111	1001 TCBSSID	ID FOR DSS TASK
239	(EF)	1 TCBRV41	RESERVED
240	(F0)	4 TCBQECB	SAME AS TCBQECBA BELOW
240	(F0)	1 TCBNQCT	COUNT OF ALL RESOURCES UNAVAILABLE DUE TO ENQ OR RESERVE REQUESTED WITH ECB
241	(F1)	3 TCBQECBA	ADDR OF ECB TO BE POSTED WHEN TCBNQCT=0
244	(F4)	4 TCBFOE	SAME AS TCBFOEA BELOW
244	(F4)	1 TCBRV42	RESERVED
245	(F5)	3 TCBFOEA	ADDRESS OF FIRST FIX OWNERSHIP ELEMENT (FOE) IN LIST FOR THIS TASK
248	(F8)	4 TCBSWA	RESERVED
252	(FC)	4 TCBRV96	RESERVED
		VS1 - VS2	COMMON EXTENSION ADDRESS OF EXTENSION IS IN
		TCBEXT2	
+0	(0)	4 TCBGTF	SAME AS TCBGTFA BELOW
+0	(0)	1 TCBTFLG	GTF FLAG BYTE
	1...	.... TCBASYN	GTF ASYNCHRONOUS GATHER RTNE IN CONTROL
	.1..	.... TCBERRTN	GTF ASYNCHRONOUS GATHER ERROR ROUTINE IN CONTROL
	..1.	.... TCBDSPIT	MCIH SHOULD UNCONDITIONALLY BRANCH TO THE DISPATCHER
	...1	.... TCBRV43	RESERVED
	....	1... TCBRV44	RESERVED
	....	.1.. TCBRV45	RESERVED
	....	..1. TCBRV46	RESERVED
	....	...1 TCBRV47	RESERVED
+1	(1)	3 TCBGTFA	ADDRESS OF TEMPORARY TRACE BUFFER
+4	(4)	1 TCBRVAB	RESERVED
+5	(5)	3 TCBRCMP	COMMON INTERFACE BETWEEN VS1 AND VS2 TO KEEP ABTERM COMPLETION CODE DUE TO A VALID RECURSION IN STAE
+8	(8)	4 TCBRV48	RESERVED
+12	(C)	4 TCBRV49	RESERVED



<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
PNONDISP	*A* TCBDARPN	TCBEXT1	196 (C4)	TCBGTFFA	+1 (1)
TCBABCUR	236 (EC)	TCBEXT1A	197 (C5)	TCBGTOFM	203 X'01'
TCBABD	174 X'80'	TCBEXT2	208 (D0)	TCBHALT	160 X'08'
TCBABE	174 X'01'	TCBEXT2A	209 (D1)	TCBHNDSP	32 X'10'
TCBABF	20 (14)	TCBFA	29 X'80'	TCBIOBRC	188 (BC)
TCBABGM	31 X'10'	TCBFABOP	30 X'20'	TCBIORMS	238 X'FC'
TCBABTRM	31 X'20'	TCBFC	33 X'80'	TCBIOTIM	228 (E4)
TCBABWF	33 X'40'	TCBFCD1	33 X'02'	TCBIOE	140 (8C)
TCBADINP	31 X'40'	TCBFDSOP	30 X'04'	TCBIWAIT	174 X'08'
TCBADMP	203 X'02'	TCBFE	29 X'40'	TCBJES	238 X'FA'
TCBADUMP	180 X'07'	TCBFERA	29 X'20'	TCBJLB	40 (28)
TCBANDSP	33 X'10'	TCBFETXR	30 X'02'	TCBJPQ	44 (2C)
TCBAPG	202 X'02'	TCBFJMC	30 X'08'	TCBJPQB	45 (2D)
TCBAQE	156 (9C)	TCBFLAG	28 X'F0'	TCBJPQF	44 X'80'
TCBASYNCR	+0 X'80'	TCBFLGS	29 (1D)	TCBJSCB	180 (B4)
TCBATT	148 X'20'	TCBFLGS1	29 (1D)	TCBJSCBB	181 (B5)
TCBBACK	220 (DC)	TCBFLGS2	30 (1E)	TCBJSTCA	125 (7D)
TCBBITS	200 (C8)	TCBFLGS3	31 (1F)	TCBJSTCB	124 (7C)
TCBCDBL	16 X'08'	TCBFLGS4	32 (20)	TCBLJSND	175 X'80'
TCBCIND	16 X'02'	TCBFLGS5	33 (21)	TCBLLS	36 (24)
TCBCLOSD	180 X'02'	TCBFLGS6	202 (CA)	TCBLMP	34 (22)
TCBCLOSE	180 X'03'	TCBFLGS7	203 (CB)	TCBLSQA	215 (D7)
TCBCLOSF	180 X'04'	TCBFOE	244 (F4)	TCBLSQAP	224 (E0)
TCBCMP	16 (10)	TCBFOEA	245 (F5)	TCBLTC	136 (88)
TCBCMPC	17 (11)	TCBFOINP	30 X'80'	TCBMASTR	238 X'FB'
TCBCMPF	16 (10)	TCBFRS	-32 (-20)	TCBMCCNS	180 X'40'
TCBCMSG	16 X'01'	TCBFRS0	-32 (-20)	TCBMDIDS	176 (B0)
TCBCOMM	238 X'FD'	TCBFRS2	-24 (-18)	TCBMESG	180 X'09'
TCBCONVR	180 X'32'	TCBFRS4	-16 (-10)	TCBMIGR	202 X'04'
TCBCPP	16 X'20'	TCBFRS6	-8 (-8)	TCBMOD91	20 X'80'
TCBCPU	202 X'20'	TCBFS	29 X'02'	TCBMPCND	32 X'02'
TCBCPUBN	148 X'01'	TCBFSA	112 (70)	TCBMPCVQ	32 X'04'
TCBCREQ	16 X'80'	TCBFSA	113 (71)	TCBMSS	24 (18)
TCBCSTEP	16 X'40'	TCBFSA	31 X'80'	TCBMSSB	25 (19)
TCBCWTO	16 X'04'	TCBFSA	30 X'10'	TCBNDSP	172 (AC)
TCBDAR	204 (CC)	TCBFSTI	30 X'40'	TCBNDSP0	172 (AC)
TCBDARC	204 X'10'	TCBFT	29 X'04'	TCBNDSP1	173 (AD)
TCBDARD	204 X'20'	TCBFTS	30 X'01'	TCBNDSP2	174 (AE)
TCBDARET	180 X'33'	TCBFX	29 X'01'	TCBNDSP3	175 (AF)
TCBDARMC	204 X'10'	TCBGPECB	203 X'80'	TCBNDSP4	200 (C8)
TCBDARO	204 X'08'	TCBGREC	180 X'05'	TCBNDSP5	201 (C9)
TCBDARP	204 X'80'	TCBGRPH	20 X'20'	TCBNDSP6	174 X'20'
TCBDARPN	173 X'40'	TCBGRS	48 (30)	TCBNDTS	174 X'10'
TCBDARS	204 X'40'	TCBGRS0	48 (30)	TCBNDUMP	32 X'80'
TCBDARTN	173 X'80'	TCBGRS1	52 (34)	TCBNEWRB	180 X'35'
TCBDARWT	204 X'04'	TCBGRS10	88 (58)	TCBNOCHK	20 X'40'
TCBDDEXC	184 (B8)	TCBGRS11	92 (5C)	TCBNOSTA	180 X'30'
TCBDDRND	173 X'08'	TCBGRS12	96 (60)	TCBNPURG	160 X'02'
TCBDDWTC	186 (BA)	TCBGRS13	100 (64)	TCBNQCT	240 (F0)
TCBDEB	8 (8)	TCBGRS14	104 (68)	TCBNSTAE	160 (A0)
TCBDSP	35 (23)	TCBGRS15	108 (6C)	TCBNTC	128 (80)
TCBDSPIT	+0 X'20'	TCBGRS2	56 (38)	TCBNTJS	202 X'01'
TCBDSS	174 X'02'	TCBGRS3	60 (3C)	TCBOLSQA	202 X'08'
TCBDSSID	238 X'F9'	TCBGRS4	64 (40)	TCBOLTEP	20 X'02'
TCBDWSTA	31 X'01'	TCBGRS5	68 (44)	TCBONDSP	32 X'01'
TCBDYDSP	148 X'02'	TCBGRS6	72 (48)	TCBOPEN	180 X'01'
TCBDYNAM	180 X'0A'	TCBGRS7	76 (4C)	TCBOTC	132 (84)
TCBECB	144 (90)	TCBGRS8	80 (50)	TCBOWAIT	174 X'04'
TCBERRTN	+0 X'40'	TCBGRS9	84 (54)	TCBPAGE	33 X'20'
TCBEXSVC	204 X'01'	TCBGTFF	+0 (0)	TCBPAGID	238 X'FF'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
TCBPDUMP	29 X'08'	TCBRSV39	208 (D0)	TCBTCAMP	180 X'0D'
TCBPIE	4 (4)	TCBRSV40	212 (D4)	TCBTCB	116 (74)
TCBPIEA	5 (5)	TCBRSV41	239 (EF)	TCBTCPC	20 X'04'
TCBPIE17	202 X'40'	TCBRSV42	244 (F4)	TCBTCPP	20 X'08'
TCBPKF	28 (1C)	TCBRSV43	+0 X'10'	TCBTCT	164 (A4)
TCBPM	4 X'0F'	TCBRSV44	+0 X'08'	TCBTCTB	165 (A5)
TCBPMASK	4 (4)	TCBRSV45	+0 X'04'	TCBTCTGF	164 (A4)
TCBPNDSP	33 X'01'	TCBRSV46	+0 X'02'	TCBTFLG	+0 (0)
TCBPQE	152 (98)	TCBRSV47	+0 X'01'	TCBTID	238 (EE)
TCBPTAXE	180 X'08'	TCBRSV48	+8 (8)	TCBTIO	12 (C)
TCBPURGE	44 (2C)	TCBRSV49	+12 (C)	TCBTIOTG	148 X'10'
TCBQECB	240 (F0)	TCBRSV74	201 X'20'	TCBTIRB	216 (D8)
TCBQECBA	241 (F1)	TCBRSV75	201 X'10'	TCBTME	120 (78)
TCBQEL	112 (70)	TCBRSV76	201 X'08'	TCBTMSAV	232 (E8)
TCBQTIP	180 X'0C'	TCBRSV77	201 X'04'	TCBTSP	173 X'04'
TCBQUIES	160 X'40'	TCBRSV78	201 X'02'	TCBTRN	20 (14)
TCBRBP	0 (0)	TCBRSV79	201 X'01'	TCBTRNB	21 (15)
TCBRCMP	+5 (5)	TCBRSV86	200 X'80'	TCBTSDP	151 (97)
TCBREC	180 X'80'	TCBRSV87	200 X'40'	TCBTSLG	148 (94)
TCBRECDE	180 (B4)	TCBRSV88	200 X'20'	TCBTSLP	150 (96)
TCBRQENA	32 X'20'	TCBRSV89	200 X'10'	TCBTSTK	148 X'80'
TCBRSPND	173 X'10'	TCBRSV9A	164 X'04'	TCBTYP1R	180 X'34'
TCBRSTND	173 X'20'	TCBRSV9B	164 X'02'	TCBTYP1W	180 X'10'
TCBRSTSK	203 X'04'	TCBRSV9C	164 X'01'	TCBUSER	168 (A8)
TCBRSVAA	237 (ED)	TCBRSV90	200 X'08'	TCBUXNDF	33 X'40'
TCBRSVAB	+4 (4)	TCBRSV91	200 X'04'	TCBUXNDV	32 X'08'
TCBRSV01	20 X'10'	TCBRSV92	200 X'02'	TCBXTENT	212 (D4)
TCBRSV02	20 X'01'	TCBRSV93	200 X'01'	TCBZERO	28 X'0F'
TCBRSV03	24 (18)	TCBRSV94	201 X'80'	TCB33E	160 X'20'
TCBRSV04	29 X'10'	TCBRSV95	201 X'40'	TNONDISP	*A* TCBDARTN
TCBRSV06	31 X'08'	TCBRSV96	252 (FC)		
TCBRSV07	31 X'04'	TCBRSV97	164 X'20'		
TCBRSV08	31 X'02'	TCBRSV98	164 X'10'		
TCBRSV09	44 X'40'	TCBRSV99	164 X'08'		
TCBRSV10	44 X'20'	TCBRV	202 X'80'		
TCBRSV11	44 X'10'	TCBSAVCD	180 X'0F'		
TCBRSV12	44 X'08'	TCBSCNDY	172 (AC)		
TCBRSV13	44 X'04'	TCBSCT	214 (D6)		
TCBRSV14	44 X'02'	TCBSER	32 X'40'		
TCBRSV15	44 X'01'	TCBSMFGF	164 X'80'		
TCBRSV16	124 (7C)	TCBSPVLK	202 X'10'		
TCBRSV17	148 X'08'	TCBSTAB	160 (A0)		
TCBRSV18	148 X'04'	TCBSTABB	161 (A1)		
TCBRSV19	160 X'10'	TCBSTABE	160 X'80'		
TCBRSV20	164 X'40'	TCBSTACK	203 X'10'		
TCBRSV21	173 X'02'	TCBSTAND	175 X'40'		
TCBRSV22	173 X'01'	TCBSTCC	16 X'10'		
TCBRSV23	175 X'20'	TCBSTCUR	160 X'01'		
TCBRSV24	175 X'10'	TCBSTI	213 (D5)		
TCBRSV25	175 X'08'	TCBSTMCT	207 (CF)		
TCBRSV26	175 X'04'	TCBSTP	33 X'04'		
TCBRSV27	175 X'02'	TCBSTPCT	149 (95)		
TCBRSV28	175 X'01'	TCBSTPP	174 X'40'		
TCBRSV30	192 (C0)	TCBSTPPR	148 X'40'		
TCBRSV32	196 (C4)	TCBSTRET	180 X'31'		
TCBRSV33	203 X'40'	TCBSWA	248 (F8)		
TCBRSV34	203 X'20'	TCBSYERR	238 X'FE'		
TCBRSV35	203 X'08'	TCBSYNCH	160 X'04'		
TCBRSV36	204 X'02'	TCBSYS	33 X'08'		
TCBRSV37	205 (CD)	TCBSYSCT	206 (CE)		

END OF TCB

## Timing Control Table

The timing control table (TCT) contains information used by the system management facilities (SMF) feature.

The TCT is pointed to by the TCBTCT field, offset 164 decimal (A4 hexadecimal), in the task control block.

The TCT is composed of:

1. The TCT proper, consisting of fields used by SMF modules and storage tables.
2. The TCT I/O lookup table, consisting of a TCT I/O lookup table and a TCT I/O counter table.

The TCT I/O table need not be contiguous to the TCT proper.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	3 TCTQA	QUEUE ADDRESS OF TCT
3	(3)	1 TCTSW	TCT SWITCHES
	1...	.... TCTJSTI	TQE JOB/STEP TIME INDICATOR BIT0 = 0 - STEP TIME IN TQE BIT0 = 1 - JOB TIME IN TQE
	.1..	.... TCTRSV01	RESERVED
	..1.	.... TCTRSV02	RESERVED
	...1	.... TCTRSV03	RESERVED
	....	1... TCTRSV04	RESERVED
	....	.1.. TCTRSV05	RESERVED
	....	..1. TCTRSV06	RESERVED
	....	...1 TCTRSV07	RESERVED
4	(4)	4 TCTTCB	ADDRESS OF INITIATOR TCB
8	(8)	4 TCTCRTBL	ADDRESS OF TCT STORAGE TABLE
12	(C)	4 TCTIOTBL	ADDRESS OF TCT I/O TABLE
16	(10)	4 TCTPOOL	SUBPOOL/LENGTH FOR TCT PROPER
16	(10)	2	TCT SUBPOOL NUMBER
18	(12)	2 TCTSZE	TCT SIZE ON HWORD BOUNDARY
20	(14)	4 TCTUTL	ADDRESS OF USER TIME LIMIT ROUTINE
24	(18)	4 TCTUDATA	ADDR OF A POINTER TO THE JOB MGMT RECORD
28	(1C)	4 TCTJMR	ADDRESS OF JOB MANAGEMENT RECORD
32	(20)	4 TCTRSV08	RESERVED
36	(24)	4 TCTSTOF	OVERFLOW FOR USER-SUPPLIED STEP TIME EXTENSIONS
40	(28)	4 TCTSACT	CURRENT TOTAL OF USER-SUPPLIED STEP TIME EXTENSIONS (TIMER UNITS)
44	(2C)	4 TCTWLMT	MAXIMUM JOB/STEP WAIT TIME LIMIT
48	(30)	4 TCTLIN	TSO - COUNT OF LINES OF TERMINAL INPUT
52	(34)	4 TCTLOUT	TSO - COUNT OF LINES OF TERMINAL OUTPUT
56	(38)	4 TCTAST	TOD OF DEVICE ALLOCATION START IN 100TH OF SECONDS
60	(3C)	4 TCTPPST	TOD OF INITIAL PROBLEM PROGRAM LOADING 100TH OF SECONDS
64	(40)	20 TCTPGSMF	SMF REGION-RELATED STATISTICS
64	(40)	4 TCTPGIN	TOTAL PAGE-INS FOR THIS REGION (INCLUDING SWAP-INS)
68	(44)	4 TCTPGOUT	TOTAL PAGE-OUTS FOR THIS REGION (INCLUDING SWAP-OUTS)
72	(48)	4 TCTRGNS	TOTAL SWAPS PERFORMED FOR THIS TSO USER (SWAP-INS + SWAP-OUTS)
76	(4C)	4 TCTSIN	TOTAL PAGES SWAPPED-IN FOR THIS TSO USER
80	(50)	4 TCTSOUT	TOTAL PAGES SWAPPED-OUT FOR THIS TSO USER
TCT STORAGE TABLES: A SEPARATE TABLE IS USED TO DESCRIBE EACH TYPE OF STORAGE OBTAINED FOR A TASK (PROCESSOR STORAGE (HIERARCHY 0) AND LCS (HIERARCHY 1))*			
84	(54)	4 TCTLWM	HIGHEST ADDR ALLOC FROM BOTTOM OF REGION
88	(58)	4 TCTHWM	LOWEST ADDR ALLOC FROM TOP OF REGION
92	(5C)	2 TCTMINC	MINIMUM DIFF BETWEEN LWM/HWM (2K BLOCKS)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
94	(5E)	2 TCTRSZ	REGION REQUEST SIZE (2K BLOCKS)
96	(60)	2 TCTRBC	CURRENT ROLLOUT BORROWED CORE (2K BLKS)
98	(62)	2 TCTMBC	MAXIMUM ROLLOUT BORROWED CORE (2K BLKS)
HIERARCHY 1 STORAGE TABLE			
100	(64)	16 TCTLCS	STORAGE RESERVED FOR HIERARCHY 1 STORAGE TABLE
TCT INPUT/OUTPUT TABLE: THE TCT I/O TABLE IS COMPOSED OF THE TCT I/O LOOKUP TABLE AND THE TCT I/O COUNTER TABLE			
TCT I/O LOOKUP TABLE: THE TCT I/O LOOKUP TABLE CONTAINS A COMMON SECTION AND A DD LOOKUP TABLE ENTRY FOR EACH DD ENTRY IN THE TIOT.			
116	(74)	4 TCTPLEXT	SUBPOOL/LENGTH OF TCT I/O TABLE
116	(74)	2	SUBPOOL NUMBER FOR TCT I/O TABLE
118	(76)	2 TCTSZEXT	LENGTH OF TCT I/O TBL ON HWORD BOUNDARY
120	(78)	2 TCTSZLKP	LENGTH OF TCT I/O LOOKUP TABLE
122	(7A)	2 TCTRSV11	RESERVED
DD LOOKUP TABLE ENTRY: A DD LOOKUP TABLE ENTRY IS CREATED FOR EACH DD ENTRY IN THE TIOT			
124	(7C)	2 TCTDCBTD	OFFSET FOR TIOT DD ENTRY
126	(7E)	2 TCTIOTSD	OFFSET FOR TCT I/O TABLE DD ENTRY
128	(80)	4 TCTDCBLE	END OF TCT I/O LOOKUP TABLE (ZEROS)
TCT I/O COUNTER TABLE THE TCT I/O COUNTER TABLE CONSISTS OF ONE DD ENTRY FOR EACH DD ENTRY IN THE TIOT			
DD ENTRY: EACH DD ENTRY CONSISTS OF AN 8 BYTE DEVICE ENTRY REPEATED FOR EACH UCB ASSOCIATED WITH A DD STATEMENT AND AN 8 BYTE OUTPUT LIMIT EXTENSION.			
DEVICE ENTRY			
132	(84)	2 TCTUCBP	ADDRESS OF UCB FOR THIS DEVICE
134	(86)	1 TCTSCTR	NUMBER OF DEVICES ASSOCIATED WITH THIS DD STATEMENT. X'FF' INDICATES SYSIN DATA SET (VS1).
135	(87)	1 TCTRSV09	RESERVED
136	(88)	4 TCTDCTR	EXCP COUNTER FOR THIS UCB
OUTPUT LIMIT EXTENSION			
140	(8C)	4 TCTRSV10	RESERVED
144	(90)	1 TCTEXRLD	NO OF EXTENTS RELEASED BY DADSM
145	(91)	3 TCTTKRLD	NO OF TRKS RELEASED BY DADSM

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
	16 (10)				
	116 (74)				
TCTAST	56 (38)				
TCTCRTBL	8 (8)				
TCTDCBLE	128 (80)				
TCTDCBTD	124 (7C)				
TCTDCTR	136 (88)				
TCTEXP	*A* TCTSW				
TCTEXRLD	144 (90)				
TCTHWM	88 (58)				
TCTIOTBL	12 (C)				
TCTIOTSD	126 (7E)				
TCTJMR	28 (1C)				
TCTJSTI	3 X'80'				
TCTLCS	100 (64)				
TCTLIN	48 (30)				
TCTLOUT	52 (34)				
TCTLWM	84 (54)				
TCTMBC	98 (62)				
TCTMINC	92 (5C)				
TCTPGIN	64 (40)				
TCTPGOUT	68 (44)				
TCTPGSMF	64 (40)				
TCTPLEXT	116 (74)				
TCTPOOL	16 (10)				
TCTPPST	60 (3C)				
TCTQA	0 (0)				
TCTRBC	96 (60)				
TCTRGNS	72 (48)				
TCTRSV01	3 X'40'				
TCTRSV02	3 X'20'				
TCTRSV03	3 X'10'				
TCTRSV04	3 X'08'				
TCTRSV05	3 X'04'				
TCTRSV06	3 X'02'				
TCTRSV07	3 X'01'				
TCTRSV08	32 (20)				
TCTRSV09	135 (87)				
TCTRSV10	140 (8C)				
TCTRSV11	122 (7A)				
TCTRSZ	94 (5E)				
TCTSACT	40 (28)				
TCTSCTR	134 (86)				
TCTSIN	76 (4C)				
TCTSOUT	80 (50)				
TCTSTOF	36 (24)				
TCTSW	3 (3)				
TCTSZE	18 (12)				
TCTSZEXT	118 (76)				
TCTSZLKP	120 (78)				
TCTTCB	4 (4)				
TCTTKRLD	145 (91)				
TCTUCBP	132 (84)				
TCTUDATA	24 (18)				
TCTUTL	20 (14)				
TCTWLMT	44 (2C)				

END OF TCT

## **Task Input/Output Table**

The task input/output table (TIOT) is constructed by job management routines. It resides in the upper portion of the pageable dynamic area of virtual storage during step execution. The TIOT provides the I/O support routines (OPEN, CLOSE, and EOVS) with pointers to JFCBs and allocated devices.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	8 TIOCJOB	JOB NAME
8	(8)	16 TIOCSTEP	STEP NAME
			DD ENTRY: A DD ENTRY INCLUDES A DEVICE ENTRY. BEFORE ALLOCATION, THERE MAY BE SEVERAL DEVICE ENTRIES IN EACH DD ENTRY.
24	(18)	1 TIOELNGH	LENGTH OF THIS ENTRY
25	(19)	1 TIOESTTA	STATUS -A-
	1...	.... TIOSLTYP	NONSTANDARD LABEL (NOTE 1)
	.1..	.... TIOSPLTP	SPLIT CYLINDER PRIMARY
	..1.	.... TIOSPLTS	SPLIT CYLINDER SECONDARY
	...1	.... TIOSJBLB	JOBLIB INDICATOR
	....	1... TIOSDADS	DADSM ALLOCATION NECESSRY
	....	.1.. TIOSLABL	LABELED/UNLABELED (NOTE 1)
	....	..1. TIOSDSP1	DISPOSITION BIT 1
	....	...1 TIOSDSP2	DISPOSITION BIT 2
			NOTE 1 - IF BOTH BITS TIOSLTYP AND TIOSLABL ARE ON, THE VOLUME IS A TAPE AND HAS AN 'ANSI' LABEL.
26	(1A)	2 TIOERLOC	REL. LOC OF POOL
26	(1A)	1 TIOEWCT	COUNT OF NUMBER OF DEVICES DURING ALLOCATION STILL ELIGIBLE TO DADSM ALLOCATE THIS DATA SETS REQUEST
27	(1B)	1 TIOELINK	DURING ALLOCATION OF ALL BUT POOLS THIS WILL BE A LINK TO THE APPROPRIATE PRIME, SPLIT, UNIT AFFINITY, VOLUME AFFINITY, OR SUBALLOCATE. FOLLOWING BIT MASKS APPLY TO THE TIOELINK FIELD.
	1...	.... TIOSYOUT	YSOUT DATA SET THAT CONTAINS DATA
	.1..	.... TIOTOPEN	DATA SET IS OPEN
	..1.	.... TIOTTERM	THIS IS A TERMINAL
	...1	.... TIOEDYNM	'DYNAM' KEYWORD USED
	....	1... TIOEQNAM	'QNAME' KEYWORD USED
	....	.1.. TIOESYIN	ENTRY FOR SPOOLED INPUT
	....	..1. TIOESYOT	ENTRY FOR SPOOLED OUTPUT
	....	...1 TIOTREM	INDICATES THE ENTRY IS FOR A REMOTE DEVICE
28	(1C)	8 TIOEDDNM	DDNAME
36	(24)	3 TIOEJFCB	JFCB DISK ADDR
39	(27)	1 TIOESTTC	STATUS -C-
	1...	.... TIOSDKCR	CORE/DISK ADDRESS
	.1..	.... TIOSDEFR	DEFERRED MOUNT
	..1.	.... TIOSAFFP	UNIT AFFINITY PRIMARY
	...1	.... TIOSAFFS	UNIT AFFINITY SECONDARY
	....	1... TIOSVOLP	VOLUME AFFINITY PRIMARY
	....	.1.. TIOSVOLS	VOLUME AFFINITY SECONDARY
	....	..1. TIOSBALP	SUBALLOCATE PRIMARY
	....	...1 TIOSBALS	SUBALLOCATE SECONDARY
			DEVICE ENTRIES: 1. DURING ALLOCATION: ONE DEVICE ENTRY FOR EACH DEVICE REQUIRED, OR FOR EACH PUBLIC DEVICE ELIGIBLE. 2. DURING PROBLEM PROGRAM: ONE DEVICE ENTRY FOR EACH ALLOCATED DEVICE
40	(28)	1 TIOESTTB	STATUS -B-
	1...	.... TIOSUSED	DATA SET IS ON DEVICE
	.1..	.... TIOSREQD	DATA SET WILL USE DEVICE
	..1.	.... TIOSPVIO	DEVICE VIOLATES SEPARATION
	...1	.... TIOSVLSR	VOLUME SERIAL PRESENT
	....	1... TIOSSETU	SETUP MESSAGE REQUIRED



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	.1..	TIOSMNTD	MOUNTED
....	..1.	TIOSUNLD	UNLOAD REQUIRED
....	...1	TIOSVERF	VERIFICATION REQUIRED
41	(29)	3 TIOEFSRT	SRT POINTER
		TIOT POOL ENTRY	
44	(2C)	1	RESERVED
45	(2D)	1 TIOPNSLT	NR.OF SLOTS FOR POOL
46	(2E)	1	RESERVED
47	(2F)	1 TIOPNSRT	NR.OF DEVICES ( FILLED SLOTS )
48	(30)	8 TIOPPOOL	POOL NAME
56	(38)	1 TIOPSTB	STATUS OF SLOT
57	(39)	3 TIOPSLOT	SRT ADDRESS OR EMPTY SLOT
60	(3C)	4 TIOTFEND	FINAL END OF AN ENTRY OR OF THE TIOT

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	44 (2C)				
	46 (2E)				
TIOCNJOB	0 (0)				
TIOCSTEP	8 (8)				
TIOEDDNM	28 (1C)				
TIOEDYNM	27 X'10'				
TIOEFSRT	41 (29)				
TIOEJFCB	36 (24)				
TIOELINK	27 (1B)				
TIOELNGH	24 (18)				
TIOEQNAM	27 X'08'				
TIOERLOC	26 (1A)				
TIOESTTA	25 (19)				
TIOESTTB	40 (28)				
TIOESTTC	39 (27)				
TIOESYIN	27 X'04'				
TIOESYOT	27 X'02'				
TIOEWICT	26 (1A)				
TIOPNSLT	45 (2D)				
TIOPNSRT	47 (2F)				
TIOPPOOL	48 (30)				
TIOPSLT	57 (39)				
TIOPSTTB	56 (38)				
TIOSAFFP	39 X'20'				
TIOSAFFS	39 X'10'				
TIOSBALP	39 X'02'				
TIOSBALS	39 X'01'				
TIOSDADS	25 X'08'				
TIOSDEFR	39 X'40'				
TIOSDKCR	39 X'80'				
TIOSDSP1	25 X'02'				
TIOSDSP2	25 X'01'				
TIOSJBLB	25 X'10'				
TIOSLABL	25 X'04'				
TIOSLTYP	25 X'80'				
TIOSMNTD	40 X'04'				
TIOSPLTP	25 X'40'				
TIOSPLTS	25 X'20'				
TIOSPVIO	40 X'20'				
TIOSREQD	40 X'40'				
TIOSSETU	40 X'08'				
TIOSUNLD	40 X'02'				
TIOSUSED	40 X'80'				
TIOSVERF	40 X'01'				
TIOSVLSR	40 X'10'				
TIOSVOLP	39 X'08'				
TIOSVOLS	39 X'04'				
TIOSYOUT	27 X'80'				
TIOTFEND	60 (3C)				
TIOTOPEN	27 X'40'				
TIOTREM	27 X'01'				
TIOTTERM	27 X'20'				

END OF TIOT

## Unit Control Block

There is a unit control block (UCB) for each device attached to the system. It describes the characteristics of the device to the I/O supervisor and is used by the job scheduler during allocation of the device.

The unit control block consists of two segments: a segment common to all devices (common segment) and segments that vary with different devices (device segments). The UCB device segments may also contain pointers to a device extension which does not have to be contiguous to the UCB proper.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
COMMON SECTION			
0	(0)	1 UCBJBNR	INTERNAL JOB ID
	1111	11.. UCBJBNRF	IDENTIFIER OF INITIATOR REQUESTING RETAIN OR PASSED DATA SET USAGE (VS2)
	1111	.... UCBKEY	JOB PROTECTION KEY (VS1) (SET FOR RETAIN OR PASS)
	....	1.. UCBRSV01	RESERVED
	....	.1.. UCBRSV02	RESERVED
	....	..1. UCBDEM	DEMOUNT AND RETAIN OR PASS (SET DURING DEVICE ALLOC)
	....	...1 UCBMONT	MOUNT AND RETAIN OR PASS (SET DURING DEVICE ALLOC)
1	(1)	1 UCBFL5	FLAGS
	1...	.... UCBRSV03	RESERVED
	.1..	.... UCBAF	ATTENTION FOR THIS CONSOLE DEVICE TO BE PROCESSED BY COMMUNICATIONS TASK
	.1..	.... UCBAMV	FOR DIRECT ACCESS DEVICES ONLY IF ONE, IT INDICATES A SUCCESSFUL COMPARISON CHECKING OF THE ACCESS METHOD CATALOG AND THE VOLUME CONTENTS
	..1.	.... UCBTICBT	CHANNEL END AND/OR DEVICE END OR MOUNT CONDITION PENDING. USED ONLY WITH PTF.
	...1	.... UCBVSDR	DEVICE HAS VARIABLE LENGTH SDRS
	....	1.. UCBEXTSN	UCNBRSN CONTAINS LENGTH AND UCBSNADR ADDRESS OF SENSE INFO
	....	.1.. UCBNALOC	DEVICE NOT ALLOCABLE BECAUSE OWNED BY OLTEP
	....	..1. UCBALTCU	DEVICE HAS ALTERNATE CU ADDRESS
	....	...1 UCBALTPH	DEVICE HAS ALTERNATE PATH
2	(2)	1 UCBID	UCB ID (HEXADECIMAL FF)
3	(3)	1 UCBSTAT	DEVICE STATUS
	1...	.... UCBONLI	DEVICE ONLINE
	.1..	.... UCBCHGS	DEVICE TO BE VARIED OFFLINE
	..1.	.... UCBRESV	VOLUME RESERVED
	...1	.... UCBUNLD	UNLOAD PENDING
	....	1.. UCBALOC	DEVICE ALLOCATED
	....	.1.. UCBPRES	VOLUME PERMANENTLY RESIDENT
	....	..1. UCBSYSR	SYSTEM RESIDENCE OR PRIMARY CONSOLE OR ACTIVE CONSOLE
	....	...1 UCBDADI	STANDARD TAPE LABELS VERIFIED OR ALTERNATE CONSOLE OR CONSOLE STATUS CHANGING
4	(4)	1 UCBCHA	CHANNEL ADDRESS FLAGS
	1...	.... UCBHIO	HALT I/O
	.1..	.... UCBMOD	STATUS MODIFIER
	..xx	xxxx UCBCHANA	CHANNEL ADDRESS
5	(5)	1 UCBUA	UNIT ADDRESS
6	(6)	1 UCBFL1	FLAGS
	1...	.... UCBBUSYD	DEVICE BUSY
	.1..	.... UCBNOTRD	DEVICE NOT READY
	..1.	.... UCBUSING	CHANNEL PROGRAM EXECUTED AND NOT YET POSTED COMPLETE
	...1	.... UCBINTER	DEVICE END ERROR AFTER CHANNEL END (IOB INTERCEPT)
	....	1.. UCBNOTRC	CONTROL UNIT BUSY
	....	.xx. UCBSTS	DEVICE STATUS
	....	.01. UCBNTRAN	DIRECT ACCESS ARM SEEKING (IOS STANDALONE CP EXECUTED) OR TC RECEIVE STATUS (INHIBIT HIO)
	....	.11. UCBTRANS	DIRECT ACCESS DATA TRANSFER (USER CP EXECUTING)
	....	...1 UCBERR	ERROR ROUTINE USING DEVICE EXCLUSIVELY

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
7	(7)	1 UCBDTI	DEVICE TABLE INDEX
8	(8)	1 UCBETI	ERROR TABLE INDEX (ERROR ROUTINE SUFFIX)
9	(9)	1 UCBSTI	STATUS TABLE INDEX (*10 = STATAB INDEX)
10	(A)	1 UCBLCI	LOGICAL CHANNEL WORD TABLE INDEX (*8 = LCHTAB INDEX)
11	(B)	1 UCBATI	ATTENTION TABLE (ANTAB) INDEX
	1...	.... UCBRSV04	RESERVED
	.1..	.... UCBRSV05	RESERVED
	..1.	.... UCBRSV06	RESERVED
	...1	.... UCBRSV07	RESERVED
	....	1... UCBRSV08	RESERVED
	....	.1.. UCBRSV09	RESERVED
	....	..1. UCBHALI	OPTIONAL JOB ENTRY SYSTEM ALLOCATION INDICATOR
	....	...1 UCBHPDV	IF ONE, INDICATES OPTIONAL JOB ENTRY SYSTEM PSEUDO DEVICE
12	(C)	1 UCBWGT	FLAGS AND CHANNEL MASK
	1...	.... UCBIN	SYSIN
	.1..	.... UCBOUT	SYSOUT
	..1.	.... UCBPUB	ASSUME PUBLIC VOLUME
	...1	.... UCBREW	REWIND COMMAND
	....	xxxx UCBPATH	INOPERATIVE PATHS
	....	1... UCBPATH0	PRIMARY PATH INOPERATIVE
	....	.1.. UCBPATH1	OPTIONAL PATH 1 INOPERATIVE
	....	..1. UCBPATH2	OPTIONAL PATH 2 INOPERATIVE
	....	...1 UCBPATH3	OPTIONAL PATH 3 INOPERATIVE
13	(D)	3 UCBNAME	EBCDIC UNIT NAME
16	(10)	4 UCBTYP	DEVICE DESCRIPTION
16	(10)	1 UCBTBYT1	MODEL BITS
	1...	.... UCB1FEA0	BIT 0
	.1..	.... UCB1FEA1	BIT 1
	..1.	.... UCB1FEA2	BIT 2
	...1	.... UCB1FEA3	BIT 3
	....	1... UCB1FEA4	BIT 4
	....	.1.. UCB1FEA5	BIT 5
	....	..1. UCB1FEA6	BIT 6
	....	...1 UCB1FEA7	BIT 7
17	(11)	1 UCBTBYT2	OPTION FLAGS
	1...	.... UCB2OPT0	FLAG 0
	.1..	.... UCB2OPT1	FLAG 1
	..1.	.... UCB2OPT2	FLAG 2
	...1	.... UCB2OPT3	FLAG 3
	....	1... UCB2OPT4	FLAG 4
	....	.1.. UCB2OPT5	FLAG 5
	....	..1. UCB2OPT6	FLAG 6
	....	...1 UCB2OPT7	FLAG 7
18	(12)	1 UCBTBYT3	CLASS BITS
	1...	.... UCB3TAPE	TAPE
	.1..	.... UCB3COMM	COMMUNICATIONS
	..1.	.... UCB3DACC	DIRECT ACCESS
	...1	.... UCB3DISP	DISPLAY
	....	1... UCB3UREC	UNIT RECORD
	....	.1.. UCB3CHAR	CHARACTER READER
	....	..1. UCBRSV10	RESERVED
	....	...1 UCBRSV11	RESERVED
19	(13)	1 UCBTBYT4	DEVICE CODE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
20	(14)	2 UCBLTS	LAST REQUEST ELEMENT
22	(16)	2 UCBSNS	SENSE INFORMATION FOR DEVICES WITHOUT EXTENDED SENSE
22	(16)	1 UCBFL7	FLAG BYTE FOR DEVICES WITH EXTENDED SENSE
	1...	.... UCBADEP	INDICATES CANCEL KEY DEPRESSED ON 3211
	.1..	.... UCBRV12	RESERVED
	..1.	.... UCBRV13	RESERVED
	...1	.... UCBRV14	RESERVED
	....	1... UCBRV15	RESERVED
	....	.1.. UCBRV16	RESERVED
	....	..1. UCBRV17	RESERVED
	....	...1 UCBRV18	RESERVED
23	(17)	1 UCBRV19	RESERVED BYTE FOR DEVICES WITH EXTENDED SENSE

DEVICE-DEPENDENT UCB SEGMENTS

DIRECT ACCESS (23XX/3330) AND MAGNETIC TAPE  
(2400/3400) UCB SEGMENT

DEVICE-DEPENDENT SEGMENT

24	(18)	4 UCBSNSE	ADDITIONAL SENSE INFORMATION FOR DEVICES WITH SIX SENSE BYTES
24	(18)	4 UCBSNSB	SAME AS UCBSNSA BELOW
24	(18)	1 UCBSNSN	NUMBER OF EXPANDED SENSE BYTES
25	(19)	3 UCBSNSA	ADDRESS OF EXPANDED SENSE INFORMATION
28	(1C)	6 UCBVOLI	VOLUME SERIAL NUMBER
34	(22)	1 UCBSTAB	VOLUME STATUS
	1...	.... UCBSVL	NOT SHARABLE (DIRECT ACCESS)
	1...	.... UCBDVSHR	WHEN ONE, DEVICE SHARABLE AMONG SEVERAL CPU'S (3420 MAGNETIC TAPE DEVICES ONLY)
	.1..	.... UCBSGFL	UCB IS OPEN AND IS USED AS A PAGE FILE
	..1.	.... UCBSALB	MORE VOLUME LABEL PROCESSING
	..1.	.... UCBSRFRS	THIS DEVICE WAS SPECIFIED IN PRESRES BUT WAS NOT MOUNTED AT IPL
	...1	.... UCBSPRV	PRIVATE USE
	....	1... UCBS PUB	PUBLIC USE
	....	.1.. UCBSSTR	STORAGE USE (DA) ANSI LABEL (MT)
	....	..1. UCBSJLB	JOBLIB VOLUME (DA)
	....	...1 UCBSNUL	MCS MOUNT/DEMOUNT MSGS ISSUED (MESSAGE IDS IN UCBSFSR) (MT) CONTROL VOLUME (DA)
35	(23)	1 UCBDMCT	VOLUME USE BYTE
	1...	.... UCBSMOUNT	MOUNTED OR REQUEST ISSUED (OFF MEANS MOUNT VERIFIED)
	.xxx	xxxx UCBSDMC	NUMBER OF OPEN DCBS
36	(24)	4 UCBSVTOC	TTR0 OF VTOC (DA)
36	(24)	2 UCBSFSCT	DATASET SEQUENCE COUNT (MT)
38	(26)	2 UCBSFSEQ	DATASET SEQUENCE NUMBER (MT)
40	(28)	8 UCBSFSER	DATASET SERIAL NUMBER (MT AFTER OPEN) OR MESSAGE IDS (MT BEFORE OPEN) PLUS TWO RESERVED BYTES (MT)
40	(28)	1 UCBSQC	NUMBER OF RESERVE MACROS (DA)
41	(29)	1 UCBSDVRES	DEVICE RESERVATION (SHARED DASD) (DA) SET TO UCBSQC AFTER GOOD SIO

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
42	(2A)	2 UCBRQESV	ADDRESS OF RQE TO VERIFY VOL SER NUMBER IN UCB (SET FROM UCBLTS AFTER UNSOLICITED DEVICE END) (DA)
44	(2C)	4 UCBORSVA	ADDRESS OF DEB FOR FIRST USER ON QUEUE FOR DEVICE (DA)
44	(2C)	1 UCBFL4	FLAGS (DA)
	XXXX X...	UCBDAV	VOLUME VERIFICATION FLAGS
	1... ..	UCBMNT	VOL SER VERIFIER ISSUED MOUNT
	.1... ..	UCBVVRTN	VOL SER VERIFIER IN CONTROL
	..1... ..	UCBFT	FIRST VERIFIER ENTRY FOR VOL
	...1... ..	UCBTCC	ALTERNATE TRACK PROCEDURE HANDLING VOL LABEL
	.... 1...	UCBVER	VERIFIER VERIFIED VOL
	.... .xxx	UCBORCNT	NUMBER OF REQUESTS FOR DEVICE FROM FIRST USER ON QUEUE
45	(2D)	3 UCBORSVB	ADDRESS OF DEB FOR FIRST USER ON QUEUE FOR DEVICE (DA)
48	(30)	8 UCBSKA	MBBCHHR OF LAST SEEK (DA)
48	(30)	4 UCBXTN	ADDRESS OF UCB EXTENSION (MT)
48	(30)	1 UCBVOPT	VOLUME STATISTIC FLAGS
	1... ..	UCBESV	ESV RECORDS KEPT
	.1... ..	UCBEVA	EVA RECORDS MAY BE KEPT
	..1... ..	UCBESVC	ESV RECORDS SENT TO CONSOLE AS OPPOSED TO SYS1.MAN
	...1... ..	UCBERPC	ERROR RECOVERY PROC IN CONTROL
	.... 1...	UCBESVE	ESV RECORD ISSUED FOR VOLUME BECAUSE OF EOVS
	.... .1..	UCBRV20	RESERVED
	.... ..1.	UCBRV21	RESERVED
	.... ...1	UCBASNDE	UNSOLICITED DEVICE END OCCURRED ON 3420
49	(31)	3 UCBXTNB	ADDRESS OF UCB EXTENSION (MT) (MAP BELOW)
52	(34)	4	RESERVED
56	(38)	4 UCBEXTN	SAME AS UCBEXTNA BELOW
56	(38)	1 UCBUSER	NUMBER OF CURRENT USERS (DA)
57	(39)	3 UCBEXTNA	ADDRESS OF DIRECT ACCESS UCB EXTENSION 2 (MAPPED BELOW)
60	(3C)	4 UCBEXT	ADDRESS OF UCB EXTENSION (DA) (MAPPED BELOW)
60	(3C)	1 UCBFL6	FLAG BYTE
	1... ..	UCBDSS	READ HOME ADDRESS AND READ RECORD ZERO OPERATIONS PERFORMED BY DYNAMIC SUPPORT SYSTEM
	.1... ..	UCBRV22	RESERVED
	..1... ..	UCBRV23	RESERVED
	...1... ..	UCBRV24	RESERVED
	.... 1...	UCBRV25	RESERVED
	.... .1..	UCBRV26	RESERVED
	.... ..1.	UCBRV27	RESERVED
	.... ...1	UCBRV28	RESERVED
61	(3D)	3 UCBEXTA	SAME AS UCBEXT ABOVE
			UNIT RECORD WITH UNIVERSAL CHARACTER SET (1403, 3211) UCB SEGMENT
			DEVICE-DEPENDENT SEGMENT
24	(18)	1 UCBNBRSN	LENGTH OF SENSE INFO (3211)
25	(19)	3 UCBSNADR	ADDR OF SENSE INFO -- THAT OF UCBSNS (1403) OR UCBSNSXT (3211)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
28	(1C)	4 UCBXTADR	ADDR OF UCS UCB EXTENSION
			GRAPHICS EXCEPT CRT CONSOLE AND 3270 UCB SEGMENT DEVICE-DEPENDENT SEGMENT
24	(18)	2 UCBSENS	MORE SENSE INFORMATION
26	(1A)	1 UCBOPEN	NUMBER OF OPEN DCBS
27	(1B)	1 UCBGCB	GRAPHIC CONTROL BYTE
28	(1C)	4 UCBTEB	ADDRESS OF TASK ENTRY BLOCK
32	(20)	4 UCBSTART	RESTART ADDRESS
36	(24)	4 UCBTA	ADDRESS OF BUFFER TABLE
36	(24)	1 UCBDI	DEVICES ON A CONTROL UNIT TO WHICH BUFFER SECTIONS ARE ASSIGNED
37	(25)	3 UCBTB	ADDRESS OF BUFFER TABLE
			3270 GRAPHICS UCB SEGMENT DEVICE-DEPENDENT SEGMENT
24	(18)	2 UCBAOF	ADDITIONAL OPTIONAL FEATURES. AN EXTENSION OF THE OPTIONAL FEATURES BYTE OF THE UCBTYP FIELD.
24	(18)	1 UCBAOF1	FIRST BYTE OF UCBAOF
		1... .. UCBOFMCR	MAGNETIC CARD READER ADAPTER - FOR 3277 ONLY
		.1.. .. UCBOFSP	SELECTOR PEN - FOR 3277 ONLY
		..1. .. UCBOFNL	NUMERIC LOCK - FOR 3277 ONLY
		...1 .. UCBRSV64	RESERVED <i>UCBOF PTR (434x console)</i>
		.... 1... UCBRSV65	RESERVED
		.... .1.. UCBRSV66	RESERVED
		.... ..1. UCBRSV67	RESERVED
		.... ...1 UCBRSV68	RESERVED
25	(19)	1 UCBAOF2	SECOND BYTE OF UCBAOF
		1... .. UCBRSV69	RESERVED
		.1.. .. UCBRSV70	RESERVED
		..1. .. UCBRSV71	RESERVED
		...1 .. UCBRSV72	RESERVED
		.... 1... UCBRSV73	RESERVED
		.... .1.. UCBRSV74	RESERVED
		.... ..1. UCBRSV75	RESERVED
		.... ...1 UCBRSV76	RESERVED
26	(1A)	1 UCBATNCT	ATTENTION COUNT. THE NUMBER OF ATTENTIONS NOT SERVICED IN THE LINE GROUP. PRESENT ONLY IF THE DEVICE INDEX FIELD IS 1. OTHERWISE, THIS FIELD IS RESERVED.
27	(1B)	1 UCBGCB	CONTROL BYTE. USED FOR ATTENTION HANDLING FLAGS
		1... .. UCBOLTEP	OLTEP IN CONTROL OF THE DEVICE
		.1.. .. UCBRSV77	RESERVED
		..1. .. UCBRSV78	RESERVED
		...1 .. UCBRSV79	RESERVED
		.... 1... UCBRSV80	RESERVED
		.... .1.. UCBRIPND	READ INITIAL PENDING
		.... ..1. UCBSKPGF	SKIP FLAG
		.... ...1 UCBATRCD	ATTENTION RECEIVED FROM THE DEVICE
28	(1C)	4 UCBIRB	ADDRESS OF THE IRB USED FOR SCHEDULING THE SECOND LEVEL ATTENTION ROUTINE
32	(20)	1 UCBIRLN	INITIALIZED RLN. THE RELATIVE LINE NUMBER OF THE IOB INITIALIZED FOR A READ INITIAL. IF 0,



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			NO READ INITIAL IS OUTSTANDING. PRESENT ONLY IF THE DEVICE INDEX FIELD IS 1. OTHERWISE, THIS FIELD IS RESERVED.
33	(21)	1 UCBRV81	RESERVED
34	(22)	2 UCBRV82	RESERVED
36	(24)	4 UCCTLNK	SAME AS UCCTLNA BELOW
36	(24)	1 UCRLN	DEVICE INDEX. INDEX TO THE DEB UCB ADDRESS FIELD FOR THIS DEVICE. THIS INDEX IS ALSO THE RELATIVE LINE NUMBER.
37	(25)	3 UCCTLNA	CONTROL BLOCK LINK. IF THE DEVICE INDEX FIELD IS 1, THIS FIELD CONTAINS THE ADDRESS OF THE DEB FOR THE LINE GROUP. IF THE DEVICE INDEX FIELD IS BETWEEN 2 AND 255 INCLUSIVE, THIS FIELD CONTAINS THE ADDRESS OF THE UCB WITH A DEVICE INDEX OF 1.
TAPE CARTRIDGE READER (2495) AND OPTICAL READER (1287, 1288) UCB SEGMENT DEVICE-DEPENDENT SEGMENT			
24	(18)	4 UCBCRWKA	ADDRESS OF UCB EXTENSION FOR THIS DEVICE (MAPPED BELOW)
UNIT CONTROL BLOCK EXTENSIONS			
DIRECT ACCESS (23XX/3330) UCB EXTENSION			
+0	(0)	104	OFFSET
+104	(68)	40 UCBERP	ERROR RECOVERY WORK AREA
+144	(90)	40 UCBOVFLW	TRACK OVERFLOW WORK AREA
DIRECT ACCESS (23XX/3330) UCB EXTENSION 2			
+0	(0)	4 UCBDXP	SAME AS UCBDXPA BELOW
+0	(0)	1 UCBRV32	RESERVED
+1	(1)	3 UCBDXPA	ADDRESS OF THE EXPCNTS TABLE ENTRY FOR THIS DIRECT ACCESS DEVICE
+4	(4)	1 UCBLTTDS	COUNT OF LONG TERM TEMPORARY DATA SETS (LTTDS) THAT ARE CURRENTLY ALLOCATED ON A DIRECT ACCESS DEVICE. LTTDS ARE INITIATOR SWADS AND DEDICATED WORK FILES. (OS/VS1)
+5	(5)	1 UCBRV53	RESERVED (OS/VS1)
+6	(6)	1 UCBRV54	RESERVED (OS/VS1)
+7	(7)	1 UCBRV55	RESERVED (OS/VS1)
		1... .. UCBRV56	RESERVED (OS/VS1)
		.1... .. UCBRV57	RESERVED (OS/VS1)
		..1. .... UCBRV58	RESERVED (OS/VS1)
		...1 .... UCBRV59	RESERVED (OS/VS1)
		.... 1... UCBRV60	RESERVED (OS/VS1)
		.... .1.. UCBRV61	RESERVED (OS/VS1)
		.... ..1. UCBRV62	RESERVED (OS/VS1)
		.... ...1 UCBRV63	RESERVED (OS/VS1)
PREFIX TO THE MAGNETIC TAPE UCB EXTENSION			
+0	(0)	4 UCBTXP	SAME AS UCBTXPA BELOW
+0	(0)	1 UCBRV33	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
+1	(1)	3 UCBTEXPA	ADDRESS OF THE EXPCNTS TABLE ENTRY FOR THIS MAGNETIC TAPE DEVICE
+4	(4)	1 UCBMTPND	END OF PREFIX
MAGNETIC TAPE UCB EXTENSION			
+0	(0)	8 UCBROR	READ OPPOSITE DIRECTION RECOVERY CCW
+8	(8)	2 UCBRV34	RESERVED
+10	(A)	1 UCBTRT	TEMP READ ERROR THRESHOLD (IF ZERO THEN EVA ABSENT)
+11	(B)	1 UCBTWT	TEMP WRITE ERROR THRESHOLD (IF ZERO THEN EVA ABSENT)
+12	(C)	1 UCBTR	TEMP READ ERROR COUNT
+13	(D)	1 UCBTW	TEMP WRITE ERROR COUNT
+14	(E)	2 UCBSIO	SIO COUNT
+16	(10)	1 UCBPR	PERM READ ERROR COUNT
+17	(11)	1 UCBPW	PERM WRITE ERROR COUNT
+18	(12)	1 UCBNB	NOISE BLOCK COUNT
+19	(13)	1 UCBMS	MODE SET OPERATION CODE FOR DATA BLOCKS ON 3420
+20	(14)	2 UCBERG	ERASE GAP COUNT
+22	(16)	2 UCBCLN	CLEANER ACTION COUNT
TAPE CARTRIDGE READER (2495) UCB EXTENSION			
+0	(0)	24 UCBTCERP	ERROR RECOVERY CHANNEL PROGRAM
+0	(0)	8 UCBRCCW1	RETRY CCW 1
+8	(8)	8 UCBRCCW2	RETRY CCW 2
+16	(10)	8 UCBRCCW3	RETRY CCW 3
+24	(18)	8 UCBCSWA	CSW SAVE AREA
OPTICAL READER (1287, 1288) UCB EXTENSION			
+0	(0)	1 UCBCRDDC	DATA CHECK ERROR COUNT
+1	(1)	1 UCBCRILC	INCORRECT LENGTH ERROR COUNT
+2	(2)	1 UCBCRECC	EQUIPMENT CHECK ERROR COUNT
+3	(3)	5	RESERVED
UNIT RECORD WITH UNIVERSAL CHARACTER SET (1403, 3211) UCB EXTENSION			
+0	(0)	4 UCBCSID	ID OF UCS IMAGE IN BUFFER
+4	(4)	1 UCBCSOP	FORMAT OF UCS IMAGE IN BUFFER (O FOR OPTION)
	1...	.... UCBCS01	DEFAULT IMAGE
	.1..	.... UCBCS02	FOLD MODE
	..1.	.... UCBCSV39	RESERVED
	...1	.... UCBCSV40	RESERVED
	....	1... UCBCSV41	RESERVED
	....	.1.. UCBCSV42	RESERVED
	....	..1. UCBCSV43	RESERVED
	....	...1 UCBCSPE	IMAGE HAS PARITY ERROR (3211)
+5	(5)	1 UCBCFBOP	RESERVED (1403) OR FLAGS (3211) (O FOR OPTION)

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>	
	1...	....	UCBFCB01	FCB DEFAULT IMAGE
	.1..	....	UCBRSV44	RESERVED
	..1.	....	UCBRSV45	RESERVED
	...1	....	UCBRSV46	RESERVED
	....	1..	UCBRSV47	RESERVED
	....	.1..	UCBRSV48	RESERVED
	....	..1.	UCBRSV49	RESERVED
	....	...1	UCBRSV50	RESERVED
+6	(6)	1	UCBRSV51	RESERVED
+7	(7)	1	UCBERCNT	COUNT OF ERRORS THAT HAVE OCCURRED (3211)
+8	(8)	4	UCBFCBID	FCB IMAGE ID
+12	(C)	4	UCBERADR	ADDR OF ERP LOGOUT AREA
			3211 SENSE INFORMATION UCB EXTENSION: THIS EXTENSION IS POINTED TO BY THE UCBSNADR FIELD OF THE UCB AND IS NOT CONTIGUOUS TO THE UCB.	
+0	(0)	6	UCBSNSXT	SENSE INFORMATION
+6	(6)	2	UCBRSV52	RESERVED

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	52 (34)	UCBBSTR	34 X'04'	UCBDVRES	41 (29)
	27 (1B)	UCBBSVL	34 X'80'	UCBDVSHR	34 X'80'
	+0 (0)	UCBBTA	36 (24)	UCBDVTOC	68 (44)
	+3 (3)	UCBBTB	37 (25)	UCBERADR	+12 (C)
	+1 (1)	UCBBUSYD	6 X'80'	UCBERCNT	+7 (7)
DATACELL	*A* UCBDCELL	UCBCELLS	56 (38)	UCBERG	+20 (14)
DCELBBNR	*A* UCBDDBNR	UCBCELL0	56 (38)	UCBERP	+104 (68)
DCELDMCT	*A* UCBDDMCT	UCBCELL1	72 (48)	UCBERPA	28 (1C)
DCELJBNR	*A* UCBDJBNR	UCBCELL2	88 (58)	UCBERPC	48 X'10'
DCELSTAB	*A* UCBDSTAB	UCBCELL3	104 (68)	UCBERR	6 X'01'
DCELSTAT	*A* UCBDSTAT	UCBCELL4	120 (78)	UCBESV	48 X'80'
DCELUSER	*A* UCBDUSER	UCBCELL5	136 (88)	UCBESVC	48 X'20'
DCELVOLI	*A* UCBDVOLI	UCBCELL6	152 (98)	UCBESVE	48 X'08'
DCELVTOC	*A* UCBDVTOC	UCBCELL7	168 (A8)	UCBETI	8 (8)
SRTEALOC	*A* UCBALOC	UCBCELL8	184 (B8)	UCBEVA	48 X'40'
SRTEASCI	*A* UCBBSTR	UCBCELL9	200 (C8)	UCBEXT	60 (3C)
SRTEBALB	*A* UCBBALB	UCBCHA	4 (4)	UCBEXTA	61 (3D)
SRTEBJLB	*A* UCBBJLB	UCBCHANA	4 X'3F'	UCBEXTN	56 (38)
SRTEBNUL	*A* UCBBNUL	UCBCHGS	3 X'40'	UCBEXTNA	57 (39)
SRTEBPRV	*A* UCBBPRV	UCBCLN	+22 (16)	UCBEXTSN	1 X'08'
SRTEBPUB	*A* UCBBPUB	UCBCRDDC	+0 (0)	UCBFCBID	+8 (8)
SRTEBSTR	*A* UCBBSTR	UCBCRECC	+2 (2)	UCBFCBOP	+5 (5)
SRTEBSVL	*A* UCBSVL	UCBCRILC	+1 (1)	UCBFCBO1	+5 X'80'
SRTEBVQS	*A* SRTEBSTR	UCBCRWKA	24 (18)	UCBFL1	6 (6)
SRTECHGS	*A* UCBCHGS	UCBCSWSA	+24 (18)	UCBFL2	*A* UCBFL1
SRTEDADI	*A* UCBDADI	UCBCTLNA	37 (25)	UCBFL3	+0 (0)
SRTEDMCT	*A* UCBDMCT	UCBCTLNK	36 (24)	UCBFL4	44 (2C)
SRTEFSCT	*A* UCBFSCCT	UCBDADI	3 X'01'	UCBFL5	1 (1)
SRTEFSEQ	*A* UCBFSEQ	UCBDALOC	59 X'08'	UCBFL6	60 (3C)
SRTEJBNR	*A* UCBJBNR	UCBDASD	40 (28)	UCBFL7	22 (16)
SRTEMNT	*A* UCBMONT	UCBDAY	44 X'F8'	UCBFSCCT	36 (24)
SRTEONLI	*A* UCBOCLI	UCBDDBNR	56 (38)	UCBFSEQ	38 (26)
SRTEPRES	*A* UCBPRES	UCBDBJLB	58 X'02'	UCBFSER	40 (28)
SRTERESV	*A* UCRESV	UCBDBNUL	58 X'01'	UCBFT	44 X'20'
SRTESTAB	*A* UCBSTAB	UCBDBPRS	58 X'20'	UCBGCB	27 (1B)
SRTESTAT	*A* UCBSTAT	UCBDBPRV	58 X'10'	UCBHALI	11 X'02'
SRTESYSR	*A* UCBSYSR	UCBDBPUB	58 X'08'	UCBHIO	4 X'80'
SRTEUNLD	*A* UCUNLD	UCBDBSTR	58 X'04'	UCBHIOA	+0 X'10'
SRTEUSER	*A* UCUSER	UCBDBSVL	58 X'80'	UCBHIOB	+0 X'20'
SRTEVOLI	*A* UCBVOLI	UCBDC	216 (D8)	UCBHDPV	11 X'01'
UCBACU	+0 X'80'	UCBDCELL	56 (38)	UCBID	2 (2)
UCBAF	1 X'40'	UCBDDMCT	67 (43)	UCBIN	12 X'80'
UCBALOC	3 X'08'	UCBDDMNT	67 X'80'	UCBINTER	6 X'10'
UCBALTCU	1 X'02'	UCBDEM	0 X'02'	UCBIPL	+3 X'01'
UCBALTPH	1 X'01'	UCBDEXP	+0 (0)	UCBIRB	28 (1C)
UCBAMV	1 X'40'	UCBDEXPA	+1 (1)	UCBIRLN	32 (20)
UCBAOF	24 (18)	UCBDI	36 (24)	UCBJBNR	0 (0)
UCBAOF1	24 (18)	UCBDJBNR	66 (42)	UCBJBNRF	0 X'FC'
UCBAOF2	25 (19)	UCBDMC	35 X'7F'	UCBKEY	0 X'FO'
UCBASCI	*A* SRTEASCI	UCBDMCT	35 (23)	UCBLCI	10 (A)
UCBASDEP	22 X'80'	UCBDNORM	59 X'80'	UCBLTS	20 (14)
UCBASNDE	48 X'01'	UCBDPRES	59 X'04'	UCBLTTDS	+4 (4)
UCBATI	11 (B)	UCBDRESV	59 X'20'	UCBMNT	44 X'80'
UCBATNCT	26 (1A)	UCBDSS	60 X'80'	UCBMOD	4 X'40'
UCBATRCD	27 X'01'	UCBDSTAB	58 (3A)	UCBMONT	0 X'01'
UCBBALB	34 X'20'	UCBDSTAT	59 (3B)	UCBMOUNT	35 X'80'
UCBBJLB	34 X'02'	UCBDTI	7 (7)	UCBMPFLG	+3 (3)
UCBBNUL	34 X'01'	UCBDUNLD	59 X'10'	UCBMS	+19 (13)
UCBBPRV	34 X'10'	UCBDUSER	71 (47)	UCBMTPND	+4 (4)
UCBBPUB	34 X'08'	UCBDVOLI	60 (3C)	UCBNALOC	1 X'04'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
UCBNAME	13 (D)	UCBRSV22	60 X'40'	UCBSENSA	25 (19)
UCBNB	+18 (12)	UCBRSV23	60 X'20'	UCBSENSB	24 (18)
UCBNBRSN	24 (18)	UCBRSV24	60 X'10'	UCBSENSE	24 (18)
UCBNOA	+0 X'01'	UCBRSV25	60 X'08'	UCBSENSN	24 (18)
UCBNOB	+0 X'02'	UCBRSV26	60 X'04'	UCBSIO	+14 (E)
UCBNOTRC	6 X'08'	UCBRSV27	60 X'02'	UCBSIOB	+0 X'08'
UCBNOTRD	6 X'40'	UCBRSV28	60 X'01'	UCBSKA	48 (30)
UCBOFMCR	24 X'80'	UCBRSV29	59 X'40'	UCBSKPGF	27 X'02'
UCBOFNL	24 X'20'	UCBRSV30	59 X'02'	UCBSNADR	25 (19)
UCBOFSP	24 X'40'	UCBRSV31	59 X'01'	UCBSNS	22 (16)
UCBOLTEP	27 X'80'	UCBRSV32	+0 (0)	UCBSNSXT	+0 (0)
UCBONLI	3 X'80'	UCBRSV33	+0 (0)	UCBSQC	40 (28)
UCBOPEN	26 (1A)	UCBRSV34	+8 (8)	UCBSTAB	34 (22)
UCBORCNT	44 X'07'	UCBRSV35	58 X'40'	UCBSTART	32 (20)
UCBORSVA	44 (2C)	UCBRSV39	+4 X'20'	UCBSTAT	3 (3)
UCBORSVB	45 (2D)	UCBRSV40	+4 X'10'	UCBSTI	9 (9)
UCBOUT	12 X'40'	UCBRSV41	+4 X'08'	UCBSTS	6 X'06'
UCBOVFLW	+144 (90)	UCBRSV42	+4 X'04'	UCBSYSR	3 X'02'
UCBPATH	12 X'0F'	UCBRSV43	+4 X'02'	UCBTBYT1	16 (10)
UCBPATH0	12 X'08'	UCBRSV44	+5 X'40'	UCBTBYT2	17 (11)
UCBPATH1	12 X'04'	UCBRSV45	+5 X'20'	UCBTBYT3	18 (12)
UCBPATH2	12 X'02'	UCBRSV46	+5 X'10'	UCBTBYT4	19 (13)
UCBPATH3	12 X'01'	UCBRSV47	+5 X'08'	UCBTCC	44 X'10'
UCBPGFL	34 X'40'	UCBRSV48	+5 X'04'	UCBTCERP	+0 (0)
UCBPR	+16 (10)	UCBRSV49	+5 X'02'	UCBTEB	28 (1C)
UCBPRES	3 X'04'	UCBRSV50	+5 X'01'	UCBTEXP	+0 (0)
UCBPROC	+3 X'02'	UCBRSV51	+6 (6)	UCBTEXPA	+1 (1)
UCBPRSRS	34 X'20'	UCBRSV52	+6 (6)	UCBTICBT	1 X'20'
UCBPUB	12 X'20'	UCBRSV53	+5 (5)	UCBTR	+12 (C)
UCBPW	+17 (11)	UCBRSV54	+6 (6)	UCBTRT	+10 (A)
UCBRCCW1	+0 (0)	UCBRSV55	+7 (7)	UCBTW	+13 (D)
UCBRCCW2	+8 (8)	UCBRSV56	+7 X'80'	UCBTWT	+11 (B)
UCBRCCW3	+16 (10)	UCBRSV57	+7 X'40'	UCBTYP	16 (10)
UCBRESV	3 X'20'	UCBRSV58	+7 X'20'	UCBUA	5 (5)
UCBREW	12 X'10'	UCBRSV59	+7 X'10'	UCBUCSID	+0 (0)
UCBRIPND	27 X'04'	UCBRSV60	+7 X'08'	UCBUCSOP	+4 (4)
UCBRLN	36 (24)	UCBRSV61	+7 X'04'	UCBUCSO1	+4 X'80'
UCBROR	+0 (0)	UCBRSV62	+7 X'02'	UCBUCSO2	+4 X'40'
UCBRQESV	42 (2A)	UCBRSV63	+7 X'01'	UCBUCSPE	+4 X'01'
UCBRSV01	0 X'08'	UCBRSV64	24 X'10'	UCBUNLD	3 X'10'
UCBRSV02	0 X'04'	UCBRSV65	24 X'08'	UCBUSER	56 (38)
UCBRSV03	1 X'80'	UCBRSV66	24 X'04'	UCBUSING	6 X'20'
UCBRSV04	11 X'80'	UCBRSV67	24 X'02'	UCBVER	44 X'08'
UCBRSV05	11 X'40'	UCBRSV68	24 X'01'	UCBVOLI	28 (1C)
UCBRSV06	11 X'20'	UCBRSV69	25 X'80'	UCBVOPT	48 (30)
UCBRSV07	11 X'10'	UCBRSV70	25 X'40'	UCBVSDR	1 X'10'
UCBRSV08	11 X'08'	UCBRSV71	25 X'20'	UCBVTOC	36 (24)
UCBRSV09	11 X'04'	UCBRSV72	25 X'10'	UCBVVRTN	44 X'40'
UCBRSV10	18 X'02'	UCBRSV73	25 X'08'	UCBWGT	12 (C)
UCBRSV11	18 X'01'	UCBRSV74	25 X'04'	UCBXTADR	28 (1C)
UCBRSV12	22 X'40'	UCBRSV75	25 X'02'	UCBXTN	48 (30)
UCBRSV13	22 X'20'	UCBRSV76	25 X'01'	UCBXTNB	49 (31)
UCBRSV14	22 X'10'	UCBRSV77	27 X'40'	UCB1FEA0	16 X'80'
UCBRSV15	22 X'08'	UCBRSV78	27 X'20'	UCB1FEA1	16 X'40'
UCBRSV16	22 X'04'	UCBRSV79	27 X'10'	UCB1FEA2	16 X'20'
UCBRSV17	22 X'02'	UCBRSV80	27 X'08'	UCB1FEA3	16 X'10'
UCBRSV18	22 X'01'	UCBRSV81	33 (21)	UCB1FEA4	16 X'08'
UCBRSV19	23 (17)	UCBRSV82	34 (22)	UCB1FEA5	16 X'04'
UCBRSV20	48 X'04'	UCBSEN	24 (18)	UCB1FEA6	16 X'02'
UCBRSV21	48 X'02'	UCBSENS	24 (18)	UCB1FEA7	16 X'01'

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
UCB2OPT0	17 X'80'				
UCB2OPT1	17 X'40'				
UCB2OPT2	17 X'20'				
UCB2OPT3	17 X'10'				
UCB2OPT4	17 X'08'				
UCB2OPT5	17 X'04'				
UCB2OPT6	17 X'02'				
UCB2OPT7	17 X'01'				
UCB2400	19 X'01'				
UCB3CHAR	18 X'04'				
UCB3COMM	18 X'40'				
UCB3DACC	18 X'20'				
UCB3DISP	18 X'10'				
UCB3TAPE	18 X'80'				
UCB3UREC	18 X'08'				
UCB42AD1	19 X'11'				

END OF UCB

## The UCBTYP Field in the Unit Control Block

The UCBTYP field completely describes the device type. It is the exact analog of the full device name, except that it includes terminal adapters and similar units when they are part of the necessary description. The field is described separately by type of entry and by type of device.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			UNIT RECORD DEVICE CLASS
16	(10)	1	BYTE 1.
	xxxx	....	I/O SUPERVISOR FLAGS.
	x...	....	RESERVED BIT.
	.1..	....	OVERRUNNABLE DEVICE.
	..1.	....	BURST MODE.
	..0.	....	BYTE MODE.
	...1	....	DATA CHAINING.
	....	xxxx	MODEL CODE.
	....	0000	1442,2520 CARD READ PUNCH.
	....	0001	1442,2520 CARD PUNCH ONLY.
17	(11)	1	OPTIONAL FEATURES.
	1...	....	UNIVERSAL CHARACTER SET (UCS).
	.x..	xxx.	RESERVED BITS.
	..1.	....	3525 TWO-LINE PRINT FEATURE.
	...1	....	3525 MULTI-LINE PRINT FEATURE.
	....	...1	CARD IMAGE (BINARY MODE).
18	(12)	1	DEVICE CLASS.
	0000	1000	HEXADECIMAL 08 - UNIT RECORD.
19	(13)	1	UNIT TYPE.
	0000	0001	01 2540 CARD READER
	0000	0011	02 2540 CARD PUNCH
	0000	0011	03 1442 CARD READ PUNCH
	0000	0100	04 2501 CARD READER
	0000	0101	05 2520 CARD READ PUNCH
	0000	0110	06 3505 CARD READER
	0000	1000	08 1403 PRINTER (MODELS N1, 2, 7) AND 1404 PRINTER (CONTINUOUS FORM SUPPORT ONLY)
	0000	1001	09 2211 PRINTER.
	0000	1010	0A 1443 PRINTER (MODEL N1 ONLY)
	0000	1100	0C 3525 CARD PUNCH <i>0E 3800</i>
	0001	0000	10 2671 PAPER TAPE READER
	0001	1000	18 2495 TAPE CARTRIDGE READER
	0001	1011	1B 1287 OPTICAL READER
	0001	1100	1C 1288 OPTICAL PAGE READER
	0001	1101	1D 1419 MAGNETIC CHARACTER READER (PRIMARY CONTROL UNIT)
	0001	1110	1E 1419 MAGNETIC CHARACTER READER OR 1275 OPTICAL READER SORTER (SECONDARY CONTROL UNIT)
	0001	1111	1F 1275 OPTICAL READER SORTER (PRIMARY CONTROL UNIT)
	0010	0000	20 1052 CONSOLE PRINTER-KEYBOARD
	0010	0010	22 3210 CONSOLE PRINTER-KEYBOARD
	0010	0011	23 3215 CONSOLE PRINTER-KEYBOARD
	0011	0000	30 3213 PRINTER



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
MAGNETIC TAPE DEVICE CLASS			
16	(10)	1	BYTE 1.
		xxxx ....	I/O SUPERVISOR FLAGS.
		x... ....	RESERVED BIT.
		.1.. ....	OVERRUNNABLE DEVICE.
		..1. ....	BURST MODE.
		..0. ....	BYTE MODE.
		...1 ....	DATA CHAINING.
		.... xxxx	MODEL CODE.
		.... x.xx	RESERVED BITS.
		.... .1..	PHASE ENCODING (MODELS 4, 5, 6, AND 7)
17	(11)	1	OPTIONAL FEATURES.
		1... ....	7-TRACK COMPATIBILITY (24XX)
		.1.. ....	DATA CONVERSION (24XX)
		..1. ....	DUAL DENSITY (24XX) <i>800/1600</i>
		...x xxxx	RESERVED BITS.
		↓	<i>DUAL 1600/6250</i>
18	(12)	1	DEVICE CLASS.
		1000 0000	80 MAGNETIC TAPE.
19	(13)	1	UNIT TYPE.
		0000 0001	01 2400 SERIES MAGNETIC TAPE UNIT
		0000 0011	03 3400 SERIES MAGNETIC TAPE UNIT

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
		DIRECT ACCESS STORAGE DEVICE CLASS	
16	(10)	1	BYTE 1.
	xxxx	....	I/O SUPERVISOR FLAGS.
	x...	....	RESERVED BIT.
	.1..	....	OVERRUNNABLE DEVICE.
	..1.	....	BURST MODE.
	..0.	....	BYTE MODE.
	...1	....	DATA CHAINING.
	....	0000	MODEL CODE.
17	(11)	1	OPTIONAL FEATURES.
	.1..	....	TRACK OVERFLOW.
	..1.	....	THIS DEVICE CAN BE SHARED BY TWO OR MORE CPUS.
	...1	....	ROTATIONAL POSITION SENSING DEVICE.
	x...	xxxx	RESERVED BITS.
18	(12)	1	DEVICE CLASS.
	0010	0000	20 DIRECT ACCESS STORAGE DEVICE.
19	(13)	1	UNIT TYPE.
	0000	0110	06 2305 FIXED HEAD STORAGE MODEL 1
	0000	0111	07 2305 FIXED HEAD STORAGE MODEL 2
	0000	1000	08 2314/2319 DIRECT ACCESS STORAGE FACILITY
	0000	1001	09 3330 SERIES DISK STORAGE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
GRAPHIC DEVICES CLASS			
2250 DISPLAY UNIT			
16	(10)	1	BYTE 1.
	xxxx	....	DEVICE CLASS.
	0011	....	3- 2250
	....	xxxx	MODEL CODE.
	....	0001	-1 MODEL 1
	....	0010	-2 MODEL 2
	....	0011	-3 MODEL 3
17	(11)	1	OPTIONAL FEATURES.
			MODEL            FEATURES
	0000	....	0- 1,2,3 NO OPTIONAL FEATURES.
	0001	....	1- 1,2,3 PROGRAMMED FUNCTION KEYBOARD ONLY.
	0010	....	2- 1,2 LIGHT PEN ONLY.
	0011	....	3- 1,2 PROGRAMMED FUNCTION KEYBOARD AND LIGHT PEN.
	0100	....	4- 1,2,3 ALPHAMERIC KEYBOARD ONLY.
	0101	....	5- 1,2,3 PROGRAMMED FUNCTION KEYBOARD AND ALPHAMERIC KEYBOARD.
	0110	....	6- 1,2 ALPHAMERIC KEYBOARD AND LIGHT PEN.
	0111	....	7- 1,2 ALPHAMERIC KEYBOARD, LIGHT PEN, AND PROGRAMMED FUNCTION KEYBOARD.
	1000	....	8- 1,2 ABSOLUTE VECTOR GRAPHICS ONLY.
	1001	....	9- 1,2 ABSOLUTE VECTOR GRAPHICS AND PROGRAMMED FUNCTION KEYBOARD.
	1010	....	A- 1,2 ABSOLUTE VECTOR GRAPHICS AND LIGHT PEN.
	1011	....	B- 1,2 ABSOLUTE VECTOR GRAPHICS, PROGRAMMED FUNCTION KEYBOARD, AND LIGHT PEN.
	1100	....	C- 1,2 ABSOLUTE VECTOR GRAPHICS AND ALPHAMERIC KEYBOARD.
	1101	....	D- 1,2 ABSOLUTE VECTOR GRAPHICS, PROGRAMMED FUNCTION KEYBOARD AND ALPHAMERIC KEYBOARD.
	1110	....	E- 1,2 ABSOLUTE VECTOR GRAPHICS, ALPHAMERIC KEYBOARD AND LIGHT PEN.
	1111	....	F- 1,2 ABSOLUTE VECTOR GRAPHICS, ALPHAMERIC KEYBOARD, LIGHT PEN, AND PROGRAMMED FUNCTION KEYBOARD.
	....	0000	-0 1 NO OPTIONAL FEATURES.
	....	0001	-1 1 4K BUFFER ONLY.
	....	0010	-2 1 8K BUFFER ONLY.
	....	0011	-3 1 CHARACTER GENERATOR ONLY.
	....	0100	-4 1 4K BUFFER AND CHARACTER GENERATOR.
	....	0101	-5 1 8K BUFFER AND CHARACTER GENERATOR.
	....	0110	-6 1 GRAPHIC DESIGN FEATURE ONLY.
	....	0111	-7 1 GRAPHIC DESIGN FEATURE AND 4K BUFFER
	....	1000	-8 1 GRAPHIC DESIGN FEATURE AND 8K BUFFER
	....	1001	-9 1 GRAPHIC DESIGN FEATURE AND CHARACTER GENERATOR.
	....	1010	-A 1 GRAPHIC DESIGN FEATURE, 4K BUFFER, AND CHARACTER GENERATOR.
	....	1011	-B 1 GRAPHIC DESIGN FEATURE, 8K BUFFER, AND CHARACTER GENERATOR.
18	(12)	1	DEVICE CLASS.
	0001	0000	10 GRAPHICS.
19	(13)	1	UNIT TYPE.
	0010	0000	02 2250 DISPLAY UNIT

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
GRAPHICS DEVICE CLASS			
2250 DISPLAY UNIT			
16	(10)	1	BYTE 1.
	xxxx	....	DEVICE CLASS.
	0001	....	1- 1053, 2260
	....	xxxx	MODEL CODE.
	....	0001	-1 MODEL 1
	....	0010	-2 MODEL 2
17	(11)	1	OPTIONAL FEATURES.
			FEATURE
	0000	....	0- NO OPTIONAL FEATURES.
	0001	....	1- LINE ADDRESSING ONLY.
	0010	....	2- NUMERIC KEYBOARD ONLY.
	0011	....	3- LINE ADDRESSING AND NUMERIC KEYBOARD.
	0100	....	4- ALPHAMERIC KEYBOARD ONLY.
	0101	....	5- LINE ADDRESSING AND ALPHAMERIC KEYBOARD.
	0110	....	6- NON-DESTRUCTIVE CURSOR ONLY.
	0111	....	7- LINE ADDRESSING AND NON-DESTRUCTIVE CURSOR.
	1000	....	8- NUMERIC KEYBOARD AND NON-DESTRUCTIVE CURSOR.
	1001	....	9- LINE ADDRESSING, NUMERIC KEYBOARD, AND NON-DESTRUCTIVE CURSOR.
	1010	....	A- ALPHAMERIC KEYBOARD AND NON-DESTRUCTIVE CURSOR.
	1011	....	B- LINE ADDRESSING, ALPHAMERIC KEYBOARD, AND NON-DESTRUCTIVE CURSOR.
	1100	....	C- DATA ENTRY KEYBOARD ONLY.
	1101	....	D- DATA ENTRY KEYBOARD AND LINE ADDRESSING.
	1110	....	E- DATA ENTRY KEYBOARD AND NON-DESTRUCTIVE CURSOR.
	1111	....	F- DATA ENTRY KEYBOARD, LINE ADDRESSING, AND NON-DESTRUCTIVE CURSOR.
	....	1010	-A 2848 DISPLAY CONTROL, MODEL 1 WITH 240 CHARACTER DISPLAY CAPABILITY.
	....	1011	-B 2848 DISPLAY CONTROL, MODEL 2 WITH 480 CHARACTER DISPLAY CAPABILITY.
	....	1100	-C 2848 DISPLAY CONTROL, MODEL 3 WITH 960 CHARACTER DISPLAY CAPABILITY.
	....	1101	-D 2848 DISPLAY CONTROL, MODEL 21 WITH 240 CHARACTER DISPLAY CAPABILITY.
	....	1110	-E 2848 DISPLAY CONTROL, MODEL 22 WITH 480 CHARACTER DISPLAY CAPABILITY.
18	(12)	1	DEVICE CLASS.
	0001	0000	10 GRAPHICS.
19	(13)	1	UNIT TYPE.
	0000	0011	03 2260 DISPLAY STATION

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			GRAPHICS DEVICE CLASS
			3270 DISPLAY SYSTEM DEVICES
			3277 DISPLAY STATION, 3158 DISPLAY CONSOLE
16	(10)	1	MODEL CODE.
	0001	0001	11 MODEL 1
	0001	0010	12 MODEL 2, 3158 DISPLAY CONSOLE
17	(11)	1	OPTIONAL FEATURES.
	XXX.	....	KEYBOARD TYPE.
	000.	....	NO KEYBOARD.
	001.	....	66-KEY EBCDIC TYPEWRITER KEYBOARD.
	010.	....	78-KEY EBCDIC TYPEWRITER KEYBOARD.
	011.	....	66-KEY DATA ENTRY KEYBOARD.
	100.	....	78-KEY OPERATOR CONSOLE KEYBOARD.
	101.	....	66-KEY ASCII TYPEWRITER KEYBOARD.
	110.	....	78-KEY ASCII TYPEWRITER KEYBOARD.
	...1	....	AUDIBLE ALARM FEATURE.
	....	XXX.	CHARACTER GENERATOR TYPE.
	....	000.	DOMESTIC CHARACTER GENERATOR.
	....	001.	ASCII A CHARACTER GENERATOR.
	....	010.	ASCII B CHARACTER GENERATOR.
	....	011.	UNITED KINGDOM CHARACTER GENERATOR.
	....	100.	FRENCH CHARACTER GENERATOR.
	....	101.	GERMAN CHARACTER GENERATOR.
	....	...X	CHARACTER GENERATOR CASE.
	....	...0	MONOCASE CHARACTER GENERATOR.
18	(12)	1	DEVICE CLASS.
	0001	0000	10 GRAPHICS
19	(13)	1	DEVICE TYPE.
	0000	1001	09 3277 DISPLAY STATION
	0000	1100	0C 3158 DISPLAY CONSOLE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			GRAPHICS DEVICE CLASS
			3270 DISPLAY SYSTEM DEVICES
			3284 AND 3286 PRINTERS
16	(10)	1	MODEL CODE.
		0001 0001	MODEL 1.
		0001 0010	MODEL 2.
17	(11)	1	OPTIONAL FEATURES. RESERVED - NO OPTIONAL FEATURES.
18	(12)	1	DEVICE CLASS.
		0001 0000	10 GRAPHICS.
19	(13)	1	UNIT TYPE.
		0000 1010	0A 3284 PRINTER
		0000 1011	0B 3286 PRINTER

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			GRAPHICS DEVICE CLASS
			OTHER GRAPHIC DEVICES
16	(10)	1	BYTE 1.
	0001	0010	14 1053 PRINTER MODEL 4
17	(11)	1	OPTIONAL FEATURES.
	0000	0000	00 NO OPTIONAL FEATURES.
18	(12)	1	DEVICE CLASS
	0001	0000	10 GRAPHICS.
19	(13)	1	UNIT TYPE.
	0000	0100	04 1053 PRINTER
	0000	1000	08 3066 SYSTEM CONSOLE

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
			COMMUNICATION EQUIPMENT DEVICE CLASS
16	(10)	1	BYTE 1.
	xxxx	....	I/O SUPERVISOR FLAGS.
	x...	....	RESERVED BIT.
	.1..	....	OVERRUNNABLE DEVICE.
	..1.	....	BURST MODE.
	..0.	....	BYTE MODE.
	...1	....	DATA CHAINING.
	....	xxxx	MODEL CODE - THE VALUE IN THIS FIELD AND THE VALUE IN THE ADAPTER TYPE FIELD (BYTE 19) TOGETHER IDENTIFY THE MODEL.
			ADAPTER
			TYPE            UNIT
	....	0001	-1    1-            1050
			2-            1030
			3-            1050
			4-            83B3
			5-            TWX
			6-            WTTA
			8-            2260
	....	0010	-2    1-            1060
			4-            115A
	....	0011	-3    1-            2740 (CORRESPONDANCE CODE)
	....	0100	-4    1-            2740
	....	0101	-5    1-            2741C (CORRESPONDANCE CODE)
			9-            BSC1 NON-SWITCHED POINT TO POINT
	....	0110	-6    1-            2741P (PTTC/BCD OR PTTC/EBCDIC)
			9-            BSC2(SWITCHED POINT TO POINT)
	....	0111	-7    1-            1050X (INHIBIT)
			9-            BSC3(NON-SWITCHED MULTIPOINT)
	....	1000	-8    1-            2740X (INHIBIT)
17	(11)	1	OPTIONAL FEATURES.
	1...	....	AUTOMATIC CALLING.
	.1..	....	AUTOMATIC POLLING.
	..1.	....	CHECKING (2740 ONLY)
	...1	....	DUAL COMMUNICATION INTERFACE (2701 SDA-II)
	....	1...	AUTOMATIC ANSWERING
	....	.1..	DUAL CODE (2701 SDA-II)
	....	10..	STATION CONTROL (2740 ONLY)
	....	01..	TRANSMIT CONTROL (2740 ONLY)
	....	11..	OPTICAL IMAGE UNIT.
	....	..XX	BINARY VALUE
	....	..00	SADZER
	....	..01	SADONE
	....	..10	SADTWO
	....	..11	SADTHREE
18	(12)	1	DEVICE CLASS.
	0100	0000	40 COMMUNICATION EQUIPMENT
19	(13)	1	UNIT TYPE.
	XXXX	....	ADAPTER TYPE.
	0001	....	1-    IBM TERMINAL ADAPTER TYPE I
	0010	....	2-    IBM TERMINAL ADAPTER TYPE II
	0011	....	3-    IBM TELEGRAPH ADAPTER
	0100	....	4-    TELEGRAPH ADAPTER TYPE I
	0101	....	5-    TELEGRAPH ADAPTER TYPE II
	0110	....	6-    WORLD TRADE TELEGRAPH ADAPTER
	0111	....	7-    SYNCHRONOUS ADAPTER TYPE I
	1000	....	8-    IBM TERMINAL ADAPTER TYPE III
	1001	....	9-    SYNCHRONOUS ADAPTER TYPE II



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
....	XXXX		CONTROL UNIT.
....	0001		-1 2702
....	0010		-2 2701
....	0011		-3 2703
....	0100		-4 2955



## Volume Label

A volume label is 80 characters long and identifies the volume and its owner.

On magnetic tape volumes, the volume label is the first record on the tape. On nine-track tape, it is written in EBCDIC; on seven-track tape, it is written in BCD.

On direct access volumes, it is record number three, following two IPL records. It is recorded as an 84 byte physical record consisting of a 4 byte key area containing 'VOL1' and an 80 byte data area. Both areas are written in EBCDIC.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	3 VOLLABI	LABEL IDENTIFIER. THE EBCDIC CHARACTERS 'VOL'.
3	(3)	1 VOLNO	VOLUME LABEL SEQUENCE NUMBER.
4	(4)	6 VOLSERNO	VOLUME SERIAL NUMBER THAT UNIQUELY IDENTIFIES THE VOLUME. THIS FIELD MAY CONTAIN FROM ONE TO SIX ALPHABETIC, NUMERIC, OR SPECIAL CHARACTERS, LEFT JUSTIFIED WITH BLANKS IN THE REMAINDER OF THE FIELD.
10	(A)	1	RESERVED. MUST BE RECORDED AS EBCDIC ZEROS.
11	(B)	5 VOLVTOC	DASD: THE CCHHR ADDRESS OF THE VTOC DSCB ON THIS VOLUME.
11	(B)	5	MAGNETIC TAPE: RESERVED. MUST BE RECORDED AS EBCDIC BLANKS.
16	(10)	25	RESERVED. MUST BE RECORDED AS EBCDIC BLANKS.
41	(29)	10 VOLOWNER	THE NAME AND ADDRESS OF THE INSTALLATION OR USER TO WHOM THE VOLUME BELONGS.
51	(33)	29	RESERVED. MUST BE RECORDED AS EBCDIC BLANKS. ASCII VOLUME LABEL
0	(0)	3 VOLLABI	LABEL IDENTIFIER. EBCDIC CHARACTERS 'VOL'.
3	(3)	1 VOLNO	VOLUME LABEL NUMBER. MUST BE ONE.
4	(4)	6 VOLSERNO	UNIQUE IDENTIFICATION PERMANENTLY ASSIGNED TO THE OWNER TO IDENTIFY THIS PHYSICAL VOLUME.
10	(A)	1 VOLSEC	INDICATION OF RESTRICTION ON WHO MAY HAVE ACCESS TO THE INFORMATION ON THIS VOLUME. A SPACE INDICATES UNLIMITED ACCESS. ANY OTHER CHARACTER MEANS THAT THIS VOLUME IS PROTECTED AND WILL NOT BE PROCESSED. A MESSAGE WILL BE WRITTEN TO THE OPERATOR.
11	(B)	26	RESERVED. MUST BE RECORDED AS SPACES.
37	(25)	14 AVOLOWNR	IDENTIFIES THE OWNER OF THE PHYSICAL VOLUME.
51	(33)	28	RESERVED. MUST BE RECORDED AS SPACES.
79	(4F)	1 LABSTAND	THIS FIELD IS SET TO ONE IF THE LABELS AND DATA FORMATS ON THIS VOLUME CONFORM TO THE REQUIREMENTS OF THE ASCII STANDARDS.

## Volume Table of Contents

The volume table of contents (VTOC) is a data set consisting of data set control blocks (DSCBs). The format of the VTOC, and its relation to user labels, is shown in Figure 1. A description follows the illustration. Each DSCB format is described separately.

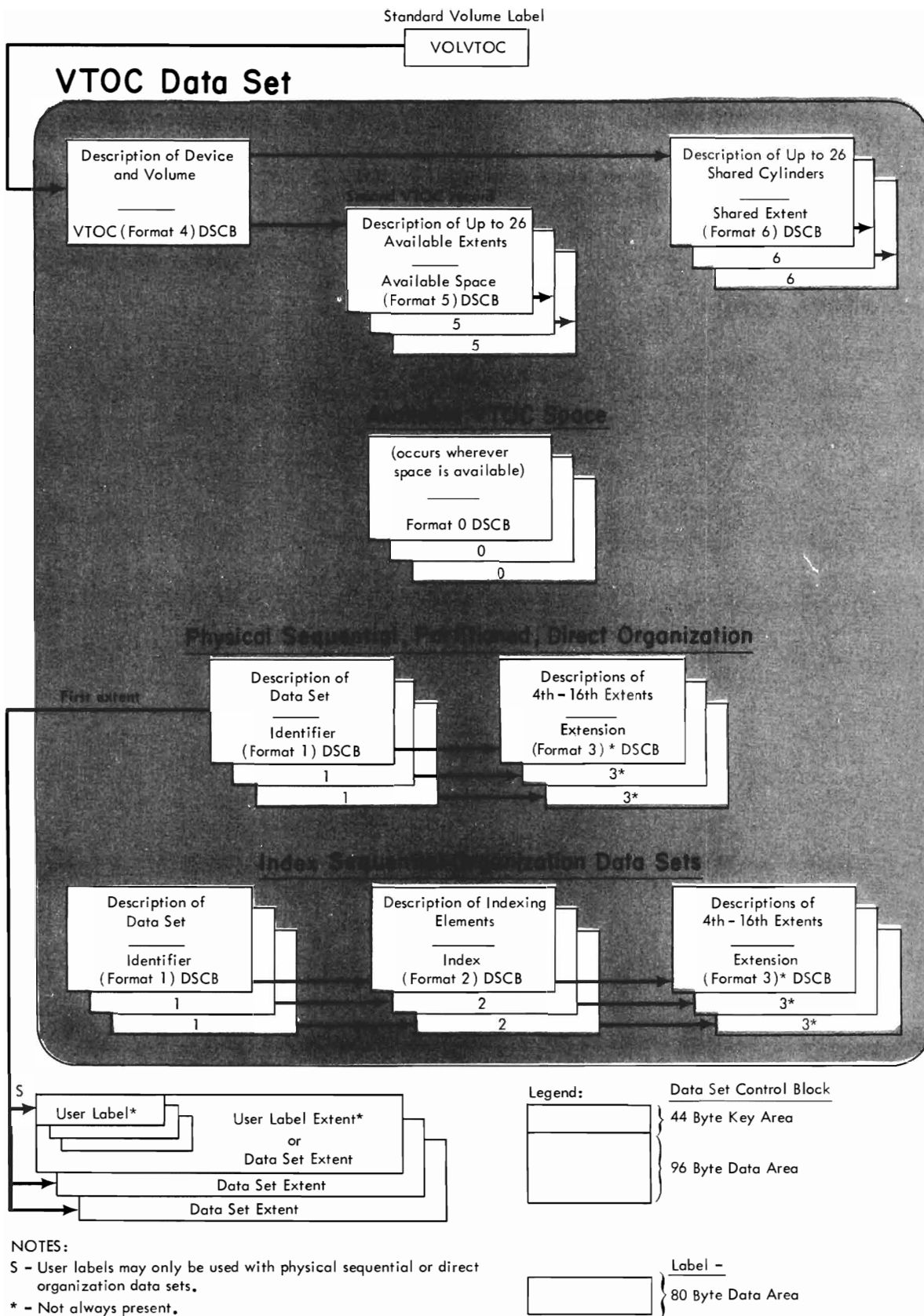


Figure 1. Volume Table of Contents

## Volume Table of Contents

The volume table of contents (VTOC) is a data set consisting of control blocks that describe the contents of a direct access storage device volume. (The data set has a single extent; its address is found in the standard volume label.) Each data set control block (DSCB) is recorded as a format F (fixed length) record/block, with the record length and block length equal to 140 bytes. DSCBs are recorded as 140 byte physical records with a 44 byte key area and a 96 byte data area.

Seven DSCB formats exist to accommodate various kinds of information about a volume and the data sets that reside on it. DSCB formats 1, 2, and 3 provide data set information; format 4 describes the VTOC data set itself, its size and the characteristics of the device it resides on; formats 5 and 6 describe the available or shared space on the volume. The 140-byte records that are not occupied by one of these DSCBs are called format 0 DSCBs and contain binary zeros. (For additional information about each DSCB format, refer to the DSCB section of this publication.)

At the beginning of the VTOC is a single format 4 DSCB. It is followed immediately by a format 5 DSCB. If there are any more format 5 DSCBs, they are chained from the first format 5 DSCB.

If there are any format 6 DSCBs, they are chained from the format 4 DSCB. For every data set on the volume there is a format 1 DSCB, and also a format 2 DSCB, if the data set has indexed sequential organization and is the first volume of the data set. Format 1 DSCBs are found by using a Search (Equal) command with an argument of the DSNAME operand; they are not chained to one another or to the format 4 DSCB. If the data set has more than three extents, a format 3 DSCB is chained from the format 1 DSCB, or from the format 2 DSCB in the case of indexed sequential organization. Any space remaining on the VTOC extent carries format 0 DSCBs.

User labels, if used, occupy the first extent described by a format 1 DSCB. This extent, a separate one for each data set, is one track long; the labels form 80 byte data segments.





## **Time Sharing Option Data Areas**

The time-sharing option (TSO) data areas described in the following sections are those that can be used to write and interpret TSO commands and those that are required to replace the TSO driver routines.



## Driver Parameter Area

The driver parameter area (DPA) contains parameter information for the time sharing driver. The DPA is 20 bytes long and is part of the resident portion of TSO.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	2 DPATJID	TIME SHARING JOB IDENTIFICATION
2	(2)	1 DPARES	RESERVED
3	(3)	1 DPAENT	ENTRY CODE
4	(4)	4 DPAVAR	CONTENTS OF REG 1 ON ENTRY TO TSIP OR RETURN INFO FOR TSIP CALLER
8	(8)	4 DPATOD	TIME OF DAY REQUESTED BY TS DRIVER
12	(C)	4 DPATSIA	ADDRESS OF TSIA
16	(10)	4 DPADCA	ADDRESS OF DRIVER CONTROL AREA (DCA)
20	(14)	DPAEND	LABEL FOR END OF DPA

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
DPADCA	16 ( 10 )
DPAEND	20 ( 14 )
DPAENT	3 ( 3 )
DPARES	2 ( 2 )
DPATJID	0 ( 0 )
DPATOD	8 ( 8 )
DPATSIA	12 ( C )
DPAVAR	4 ( 4 )

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
-------------	-------------------------------------

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
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END OF DPA



## Environment Control Table

The environment control table (ECT) is a data area constructed by the terminal monitor program (TMP) initialization routine. It contains information about the user's environment in the foreground region. The ECT resides in a non-shared subpool and is updated by the command processors. It is used by the TMP and the command processors.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	1 ECTRCDF	HIGH ORDER BIT INDICATES CP ABENDED
1	(1)	3 ECTRTCD	RETURN CODE FROM LAST CP-(ABEND CODE IF ECTRCDF IS SET )
4	(4)	4 ECTIOWA	ADDR OF I/O SERVICE ROUTINES WORK AREA
8	(8)	1 ECTMSGF	HIGH ORDER BIT SET MEANS DELETE SECOND LEVEL MSG
9	(9)	3 ECTSMSG	ADDR OF SECOND LEVEL MSG CHAIN
12	(C)	8 ECTPCMD	PRIMARY COMMAND NAME
20	(14)	8 ECTSCMD	SUBCOMMAND NAME
28	(1C)	1 ECTSWS	4 BYTES OF SWITCHES
	1... ..	ECTNOPD	0 BIT ON= NO OPERANDS EXIST IN CMD BUFFER
	.1.. ..		RESERVED
	..1. ....	ECTATRM	CP TERMINATED BY TMP DETACH W/ STAE
	...1 ....	ECTLOGF	LOGON/OFF REQUESTED TMP TO LOGOFF USER
	.... 1...	ECTNMAL	NO USER MSGS TO RECVD AT LOGON
	.... .1..	ECTNNOT	NO BRDCST NOTICES TO BE RECVD AT LOGON
29	(1D)	3 ECTDDNUM	COUNTER FOR GENERATING TEMP DDNAMES
32	(20)	4 ECTUSER	WORD RESERVED FOR INSTALLATION USE
36	(24)	4	RESERVED



<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
	36 (24)				
ECTATRM	28 X'20'				
ECTDDNUM	29 (1D)				
ECTIOWA	4 (4)				
ECTLOGF	28 X'10'				
ECTMSGF	8 (8)				
ECTNMAL	28 X'08'				
ECTNNOT	28 X'04'				
ECTNOPD	28 X'80'				
ECTPCMD	12 (C)				
ECTRCDF	0 (0)				
ECTRTCD	1 (1)				
ECTSCMD	20 (14)				
ECTSMMSG	9 (9)				
ECTSWS	28 (1C)				
ECTUSER	32 (20)				

END OF ECT



## Protected Step Control Block

The protected step control block (PSCB) is constructed by logon routines and is filled in from the user attribute data set (UADS). A fixed-length table with attribute and accounting information, the PSCB maintains user attributes and accounting data on a user id basis. The address of the PSCB, found in the JSCBPSCB field of the job step control block, is passed to the TMP.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	7 PSCBUSER	USERID PADDED RIGHT WITH BLANKS
7	(7)	1 PSCBUSRL	LENGTH OF USERID
8	(8)	8 PSCBGPNM	GROUP NAME INIT BY LOGON FROM UADS USED BY DYN ALLOC WHEN UNITNAME NOT SPECIFIED BUT IS REQUIRED
16	(10)	1 PSCBATR1	A 15 BIT STRING OF USER ATTRIBUTES
	1... ..	PSCBCTRL	OPERATOR COMMAND USER
	.1.. ..	PSCBACCT	ACCOUNT COMMAND USER
	..1. ....	PSCBJCL	SUBMIT COMMAND USER
	...X XXXX		RESERVED
17	(11)	1	RESERVED
18	(12)	1 PSCBATR2	RESERVED FOR INSTALLATION USE
19	(13)	1	RESERVED FOR INSTALLATION USE
20	(14)	4 PSCBCPU	CUMULATIVE CPU TIME USED DURING SESSION
24	(18)	4 PSCBSWP	CUMULATIVE TIME RESIDENT IN THE REGION
28	(1C)	4 PSCBLTIM	ACTUAL LOGON TIME OF DAY
32	(20)	4 PSCBTCPU	TOTAL CPU TIME USED IN THIS ACCOUNTING PERIOD, EXCLUDING THE CURRENT SESSION.
36	(24)	4 PSCBTSWP	TOTAL TIME USER IS RESIDENT IN THE REGION DURING THIS ACCT. PER., EXCL. THE CURR. SES
40	(28)	4 PSCBTCON	TOTAL TIME USER IS CONNECTED DURING THIS ACCT. PERIOD, EXCLUDING THIS CURR. SES
44	(2C)	4 PSCBTCO1	TOTAL TIME USER TERMINAL IS CONNECTED DURING THIS CURRENT SESSION
48	(30)	4 PSCBRLGB	PTR TO RELOGON BUFFER
52	(34)	4 PSCBUPT	PTR TO USER PROFILE TABLE
56	(38)	2 PSCBUPTL	LENGTH OF UPT
58	(3A)	1	RESERVED
60	(3C)	4 PSCBRSZ	REGION SIZE REQUESTED IN 2K UNITS
64	(40)	8 PSCBU	RESERVED FOR INSTALLATION USE

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	17 (11)				
	19 (13)				
	58 (3A)				
PSCBACCT	16 X'40'				
PSCBATR1	16 (10)				
PSCBATR2	18 (12)				
PSCBCPU	20 (14)				
PSCBCTRL	16 X'80'				
PSCBGPNM	8 (8)				
PSCBJCL	16 X'20'				
PSCBLTIM	28 (1C)				
PSCBRLGB	48 (30)				
PSCBRSZ	60 (3C)				
PSCBSWP	24 (18)				
PSCBTCON	40 (28)				
PSCBTCO1	44 (2C)				
PSCBTCPU	32 (20)				
PSCBTSWP	36 (24)				
PSCBU	64 (40)				
PSCBUPT	52 (34)				
PSCBUPTL	56 (38)				
PSCBUSER	0 (0)				
PSCBUSRL	7 (7)				

END OF PSCB



## **Time Sharing Job Block**

The time-sharing job block (TJB) contains information about the status of a time-sharing job. The information must be retained in storage while a user is swapped out. TJBs are obtained during time-sharing initialization and reside in the time-sharing control task region. Status information about terminals is contained in the terminal status block (TSB). The address of the TSB is at offset 0 in the TJB.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 TJBTSB	ADDR OF TSB FOR THIS JOB; IF 0,STARTED BY OPERATOR
4	(4)	1 TJBATTN	NUMBER OF UNPROCESSED ATTNS FOR THIS JOB
5	(5)	1 TJBSTAX	NUMBER OF STAX EXITS YET UNSCHEDULED
6	(6)	1 TJBSTAT	STATUS FLAGS
	1... ..	TJBNJB	NO JOB,THIS TJB IS CURRENTLY UNUSED
	.1.. ..	TJBINCOR	USER IN CORE
	..1. ....	TJBLOGON	LOGON START,SET BY TIOC AT DIAL-UP,TSC RESET
	...1 ....	TJBIWAIT	INPUT WAIT,TERMINAL JOB IS IN INPUT WAIT
	.... 1...	TJBOWAIT	OUTPUT WAIT,TERMINAL JOB IS IN OUTPUT WAIT
	.... .1..	TJBSILF	SYSTEM INITIATED LOGOFF
	.... ..1.	TJBDISC	DISCONNECT SET TO REQUEST TIOC TO DISCON LINE
	.... ...1	TJBSILF2	SYSTEM INITIATED LOGOFF
7	(7)	1 TJBSTAT2	STATUS FLAGS
	1... ..	TJBHUNG	HUNG UP
	.1.. ..	TJBHOLD	USER IS IN OWAIT DUE TO HOLD OPTIONS
	..1. ....	TJBOCAB	TSO FAILURE RESULTING IN OUT-OF-CORE ABEND
	...1 ....	TJBRNAV	USER CANNOT BE LOGGED ON BECAUSE MACHINE CHECK IN REGION OR NO REGION LARGE ENOUGH
	.... .1..	TJBQUIS	QUIESCE STARTED FOR USER
	.... ..1.	TJBUSERR	USER READY TO RUN
	.... ...1	TJBDEAD	INDICATE ABEND RECURSION TO IKJEAT07
8	(8)	4 TJBEXTNT	POINTER TO TJB IN SWAPPED OUT JOB IMAGE
12	(C)	4 TJBRCB	POINTER TO RCB FOR THIS REGION
16	(10)	4	RESERVED
20	(14)	4 TJBSPCT	POINTER TO USER SPCT
24	(18)	2	OFFSET IN TT MAP OF TT MAP Q FOR THIS USER
26	(1A)	1 TJBRSTOR	RESTORE FLAGS, TESTED BY RCT RESTORE
	1... ..	TJBOWP	POST OUTPUT WAIT,SET BY TIOC,ENDS AN OWAIT
	.1.. ..	TJBIWP	POST INPUT WAIT,SET BY TIOC,ENDS AN IWAIT
	..1. ....		RESERVED
	...1 ....	TJBLOGP	POST LOGON,POST ECB WAITED ON BY LOGON IMAGE
	.... 1...	TJBLWAIT	USER IN LONG WAIT,SWAP OUT IF NOT MADE READY BY RESTORE PROCESSING
	.... .1..	TJBDDR	WHEN ON RESTORE WILL RESET DDR NON DISPATCHABILITY BIT
	.... ..1.	TJBFAT	AN ATTN EXIT IS REQ FOR THIS USER
	.... ...1	TJBDDRND	INDICATES TO RESTORE TO SET TCB NON DISPATCHABLE WHEN JOB SWAPPED IN
27	(1B)	1	RESERVED
28	(1C)	8 TJBUSER	USERID OF THIS JOB OWNER,PADDED RT WITH BLANKS
36	(24)	4 TJBIPPB	IPPB CHAIN OF ECB'S TO BE POSTED BY RESTORE
40	(28)	1 TJBNEWID	RGN ID INTO WHICH THIS USER SHOULD BE LOGGED ON. 0 IF SELECTED BY DRIVER
41	(29)	1 TJBFLUSL	STAX LEV OF LAST STAX ISSUED WITH NOPURGE OPTION
42	(2A)	2 TJBTJID	TERMINAL JOB ID
44	(2C)	1 TJBMONI	MONITOR CMD INDICATING INFO REQUESTED
	1... ..	TJBMSN	DSNAMES



<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>	
.1..	....	TJBMJBN	JOBNAMES	
..1.	....	TJBMSES	SESSION	
...1	....	TJBMSPA	SPACE	
....	1...	TJBMSTA	STATUS	
....	.1..	TJBGETBF	THIS BIT INDICATES TPUT SHOULD ATTEMPT TO GET ADDITIONAL BUFFERS FOR USER BEFORE GOING INTO A WAIT STATE	
45	(2D)	1	TJBSTAT3	STATUS FLAGS
	1...	....	TJBDISC2	INDICATES TO IKJEAT03 WE ARE DISCONNECTING THIS TJB AND NEXT TIME THRU IF THIS BIT IS ON DO NOT DECREMENT RCB USE COUNT
	..1.	....	TJBLOGTM	INDICATES TO LOGON THAT TERMINATION IS REQUESTED
	...1	....	TJBOCPR	PREVENTS IKJVAT07 RECURSION
46	(2E)	2	TJBLINE	CONTAINS BINARY REP OF THE UNIT ADDRESS OF THE LINE BEING USED.
48	(30)	4	TJBEND	

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	16 (10)				
	24 (18)				
	27 (1B)				
TJBATTN	4 (4)				
TJBDDR	26 X'04'				
TJBDDRND	26 X'01'				
TJBDEAD	7 X'01'				
TJBDISC	6 X'02'				
TJBDISC2	45 X'80'				
TJBEND	48 (30)				
TJBEXTNT	8 (8)				
TJBFAT	26 X'02'				
TJBFLUSL	41 (29)				
TJBGETBF	44 X'04'				
TJBHOLD	7 X'40'				
TJBHUNG	7 X'80'				
TJBINCOR	6 X'40'				
TJBIPPB	36 (24)				
TJBIWAIT	6 X'10'				
TJBIWP	26 X'40'				
TJBLINE	46 (2E)				
TJBOCPR	45 X'10'				
TJBLOGON	6 X'20'				
TJBLOGP	26 X'10'				
TJBLOGTM	45 X'20'				
TJBLWAIT	26 X'08'				
TJBMDSN	44 X'80'				
TJBMJBN	44 X'40'				
TJBMONI	44 (2C)				
TJBMSES	44 X'20'				
TJBMSPA	44 X'10'				
TJBMSTA	44 X'08'				
TJBNEWID	40 (28)				
TJBNJB	6 X'80'				
TJBOCAB	7 X'20'				
TJBOCPR	45 X'10'				
TJBOWAIT	6 X'08'				
TJBOWP	26 X'80'				
TJBQUIS	7 X'04'				
TJBRCB	12 (C)				
TJBRNAV	7 X'10'				
TJBRSTOR	26 (1A)				
TJBSILF	6 X'04'				
TJBSILF2	6 X'01'				
TJBSPCT	20 (14)				
TJBSTAT	6 (6)				
TJBSTAT2	7 (7)				
TJBSTAT3	45 (2D)				
TJBSTAX	5 (5)				
TJB TJID	42 (2A)				
TJBTSB	0 (0)				
TJBUSER	28 (1C)				
TJBUSERR	7 X'02'				

END OF TJB

## **Time Sharing Job Block Extension**

The time-sharing job block extension (TJBX) is a noncontiguous extension of the TJB. It contains additional information about a time-sharing job's status. The address of the TJBX is located in the TJBEXTNT field of the time sharing job block.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	TJBFST	ADDR LOGON TCB WHICH IS FIRST IN USER READY QUEUE
4	(4)	TJBLAST	ADDR LAST TCB IN USER READY QUEUE
8	(8)	TJBDSE	ADDR OF DSE USED BY TSO'S DYN ALLOC
12	(C)	TJBSQE	POINTER TO SQE CHAIN FOR QUIESCED USER
16	(10)	TJBRQE	ADDR FIRST RQE PURGED FROM ASYNCHRONOUS EXIT QUEUE
20	(14)	TJBIQE	ADDR FIRST IQE PURGED FROM ASYNCHRONOUS EXIT QUEUE
24	(18)	TJBTAXE	QUEUE OF TAXE'S USED TO SCHEDULE ATTENTION EXITS
28	(1C)	TJBLECB	LOGON ECB POSTED BY RCT
32	(20)	TJBXPSWD	USERS LOGON PASSWORD-IF BLANK-NOT REQUIRED
40	(28)	TJBXATTR	PTR TO CHAIN OF ATRCB'S
44	(2C)	TJBXAIQE	ADDR ATTN IQE CURRENTLY BEING PROCESSED
48	(30)	TJBXQPL	ADDR QUIESCE PARM LIST
52	(34)	TJBXNQPE	NUMBER ENTRIES IN QPL
54	(36)	TJBXNTCB	NUMBER TCBS ACTIVE IN USER JOB STEP
56	(38)	TJBLQPL	LENGTH QPL
58	(3A)	TJBXHBFL	CUR VAL OF LAST HOLDBUF LEVEL. USED BY STAX SVC ROUTINE
59	(3B)		RESERVED
60	(3C)	TJBXACT	TTR OF ACT ON SYSJOBQE
64	(40)	TJBAECB	POINTER TO LOGON/LOGOFF ECB UNTIL LOGON PROCESSING THEN TO CSCB CANCEL ECB AFTER CSCB IS CREATED

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
	59 (3B)
TJBXACT	60 (3C)
TJBXAECB	64 (40)
TJBXAIQE	44 (2C)
TJBXATTR	40 (28)
TJBXDSE	8 (8)
TJBXFST	0 (0)
TJBXHBFL	58 (3A)
TJBXIQE	20 (14)
TJBXLAST	4 (4)
TJBXLECB	28 (1C)
TJBXLQPL	56 (38)
TJBXNQPE	52 (34)
TJBXNTCB	54 (36)
TJBXPSWD	32 (20)
TJBXQPL	48 (30)
TJBXRQE	16 (10)
TJBXSQE	12 (C)
TJBXTAXE	24 (18)

<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
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<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
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END OF TJBX



## **Time Sharing Interface Area**

The time-sharing interface area (TSIA) is used for communication between the time-sharing driver and the time-sharing interface program (TSIP).

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	1 TSIASAT	TS SYSTEM STATUS
	1...	.... TSIATMS	NEW TIME OF DAY REQUESTED
	.1..	.... TSIAPRI	REGION OF HIGHEST PRIORITY NOW DESIGNATED BY ID IN REGION NUMBER FIELD TSIARGN
	..1.	.... TSIAMOD	MODIFICATION IS REQUIRED TO REGION STATUS. EACH REGION ENTRY MUST BE CHECKED TO DETERMINE THE CHANGE STATUS
	...1	.... TSIABKL	MAKE BACKGROUND TASK LAST
1	(1)	1 TSIARGN	REGION NO. OF HIGHEST PRTY
2	(2)	1 TSIACURR	CURRENT DISP PRTY OF TS TASK GROUP
3	(3)	1 TSIAASGN	ASSIGNED DISP PRTY OF TS TASK GROUP
4	(4)	4 TSIATOD	TIME OF DAY OF NXT ENTRY TO TS DRIV
8	(8)	1 TSIARST	REGION STATUS
	1...	....	RESERVED
	.1..	.... TSIAQUI	QUIESCE-SWAP OUT CURR OCCUPANT
	..1.	.... TSIARES	RESTORE-SWAPIN SPECIFIED USER
	...1	....	RESERVED
9	(9)	1	RESERVED
10	(A)	2 TSIATJD	TERM JOB ID ASSOC WITH REQUEST



<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/</u> <u>EQU VALUE</u>
	9 (9)				
TSIAASGN	3 (3)				
TSIABKL	0 X'10'				
TSIACURR	2 (2)				
TSIAMOD	0 X'20'				
TSIAPRI	0 X'40'				
TSIAQUI	8 X'40'				
TSIARES	8 X'20'				
TSIARGN	1 (1)				
TSIARST	8 (8)				
TSIASTAT	0 (0)				
TSIATJD	10 (A)				
TSIATMS	0 X'80'				
TSIATOD	4 (4)				

END OF TSIA



## Time Sharing Communication Vector Table

The time-sharing communication vector table (TSCVT) is a secondary CVT pointed to from CVTTSCVT (offset 22 ) in the CVT. The TSCVT resides in the time-sharing control region; therefore, it exists only while the time-sharing region is active. When time-sharing has not been chosen at system generation, the CVT pointer to the TSCVT is zero.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	4 TSCVTTJB	POINTER TO TJB TABLE
4	(4)	4 TSCVTRCB	POINTER TO RCB TABLE
8	(8)	4 TSCVTRPT	PTR TO REFERENCE POINTER TABLE
12	(C)	1 TSCVTFLG	FLAGS TO INDICATE FUNCT REQUESTED OF TSC
13	(D)	1	
	.1..	.... TSCSWPBG	SWAP SHOULD BE STARTED
	..1.	.... TSCLOGON	A LOGON IS TO BE PROCESSED
	...1	.... TSCDISC	A DISCONNECT IS TO BE PROCESSED
	....	1... TSCVTHR	SYSTEM IS THRASHING
14	(E)	1 TSCVTFL1	FLAGS TO INDICATE FUNCT REQUESTED OF TSC
15	(F)	1	
	1...	.... TSCSSTOP	SYSTEM STOP REQUESTED AND TSC IS STOPPING
	.1..	.... TSCRSTOP	REGION STOP REQUESTED
	..1.	.... TSCASTOP	ABEND-STOP TS FLG. SET BY TSO/RMS IF TCAM MCH'S SET BY TCAM STAE EXIT IF TCAM ABENDS
	...1	.... TSCSTOP	RMS/MCH INTERFACE HAS STOPPED TSC
16	(10)	4 TSCVTI04	ADDRESS OF ENTRY POINT - IKJVAI04
20	(14)	2 TSCVTCUS	CURR NO. OF USERS LOGGED ON TSO
22	(16)	2 TSCVTLUS	CURRENT LIMIT NO. OF USERS LOGGED ON TO TSO SET BY START AND MODIFY COMMANDS
24	(18)	2 TSCVTNTJ	NO.TJB-TSB'S ALLOC BY TSO INITIALLY
26	(1A)	2 TSCVTSZU	SIZE OF TJB
28	(1C)	2 TSCVTCTR	NO. OF RCB'S ALLOC BY TSO INITIALLY
30	(1E)	2 TSCVTMUS	MAX NUMBER OF USERS LOGGED ON TO TSO SET BY START TSO COMMAND (TERMAX KEYWORD)
32	(20)	4 TSCVTSAV	PTR TO SAV AREA FOR TSC,TSIP&TS DISP
36	(24)	4 TSCVTECB	PTR TO TSECBTAB CTL BLK OF ECB'S
40	(28)	4 TSCVTSIA	PTR TO TSIA
44	(2C)	4 TSCVTICB	PTR TO TSICB
48	(30)	4 TSCVTI01	ADDRESS OF ENTRY POINT IKJVAI01 TSIP BR ENTRY
52	(34)	4 TSCVTTQE	PTR TO TQE FOR TSO'S TIME SLICING
56	(38)	4 TSCVTI02	ADDRESS OF ENTRY POINT IKJVAI02 IN TS DISPATCH
60	(3C)	4 TSCVTI03	ADDRESS OF ENTRY POINT IKJVAI03 IN TS DISPATCH
64	(40)	4 TSCVTD02	ADDRESS OF ENTRY POINT IKJEAD02 IN TS DRIVER
68	(44)	4 TSCVTLCQ	ADDR OF TOP ELEM ON LOGON COMM. QUEUE
72	(48)	4 TSCVTTTB	ADDR OF TRACE CTL BLK CHAIN
76	(4C)	4 TSCVTLPA	ADDR OF 1ST CDE IN TS LINK PACK AREA
80	(50)	4 TSCVTSLF	ADDR OF SYSTEM INITIATED LOGOFF - IKJEAL00
84	(54)	4 TSCVTTSC	ADDR OF THE TSC TASK'S TCB. (TSC)
88	(58)	4 TSCVTSPL	ADDRESS OF START PARAMETER LIST
92	(5C)	2 TSCVTRSZ	MIN REGION SIZE FOR LOGON - SET TO ZERO
94	(5E)	2	RESERVED

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
96	(60)	TSCVTSVT	SVCTBL ENTRY FOR TSIP PRIOR TO START TS
100	(64)	TSCVTSVQ	SVCTBL ENTRY FOR QTIP PRIOR TO START TS
104	(68)	TSCVTABN	ADDR OF OUT-OF-CORE ABEND RTN(IKJVAT07)
108	(6C)	TSCVTD03	ADDR OF EP IKJEAD03 IN TS DRIVER
112	(70)	TSCVTFLM	ADDRESS OF ENTRY POINT - IKJEFLM
116	(74)	TSCVTQTP	ADDRESS OF ENTRY FOR QTIP SVC - IKJGGQT1
120	(78)	TSCVTT08	ENTRY POINT ADDRESS OF IKJVAT08
124	(7C)	TSCVTDMP	ADDRESS OF TSO DUMP CONTROL BLOCK-IKJTSDMP
128	(80)	TSCVTT06	ADDRESS OF TCB FOR IKJVAT06
132	(84)	TSCVTLS3	ADDRS OF LOGON OUT OF CORE ABEND RTN
136	(88)	TSCVTSMI	ADDRESS OF SMITDSN CONTROL BLOCK
140	(8C)	TSCVTMSG	BRANCH ENTRY POINT FOR IKJVAMSG
144	(90)	TSCVTSCN	BRANCH ENTRY POINT FOR IKJVASCN
148	(94)	TSCVTR01	ADDRESS OF ENTRY POINT - IKJVAR01

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>	<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	13 (D)				
	15 (F)				
	94 (5E)				
TSCASTOP	15 X'20'				
TSCDISC	13 X'10'				
TSCLOGON	13 X'20'				
TSCRSTOP	15 X'40'				
TSCSSTOP	15 X'80'				
TSCSWPBG	13 X'40'				
TSCTSTOP	15 X'10'				
TSCVTABN	104 (68)				
TSCVTCTR	28 (1C)				
TSCVTCUS	20 (14)				
TSCVTDMP	124 (7C)				
TSCVTD02	64 (40)				
TSCVTD03	108 (6C)				
TSCVTECB	36 (24)				
TSCVTFLG	12 (C)				
TSCVTFLM	112 (70)				
TSCVTFL1	14 (E)				
TSCVTICB	44 (2C)				
TSCVTI01	48 (30)				
TSCVTI02	56 (38)				
TSCVTI03	60 (3C)				
TSCVTI04	16 (10)				
TSCVTLCQ	68 (44)				
TSCVTLPA	76 (4C)				
TSCVTL3	132 (84)				
TSCVTLUS	22 (16)				
TSCVTMSG	140 (8C)				
TSCVTMUS	30 (1E)				
TSCVTNTJ	24 (18)				
TSCVTQTP	116 (74)				
TSCVTRCB	4 (4)				
TSCVTRPT	8 (8)				
TSCVTRSZ	92 (5C)				
TSCVTR01	148 (94)				
TSCVTSAV	32 (20)				
TSCVTSCN	144 (90)				
TSCVTSIA	40 (28)				
TSCVTSLF	80 (50)				
TSCVTSMI	136 (88)				
TSCVTSPL	88 (58)				
TSCVTSVQ	100 (64)				
TSCVTSVT	96 (60)				
TSCVTSZU	26 (1A)				
TSCVTTHR	13 X'08'				
TSCVTTJB	0 (0)				
TSCVTTQE	52 (34)				
TSCVTTTB	72 (48)				
TSCVTTSC	84 (54)				
TSCVTT06	128 (80)				
TSCVTT08	120 (78)				

END OF TSCVT

## User Profile Table

The user profile table (UPT) is built by the logon/logoff scheduler from information stored in the user attribute data set (UADS) and from the LOGON command. It resides in storage shared by the terminal monitor program and the logon/logoff scheduler. It contains information about the terminal user which can be updated by the PROFILE command processor. The information is used by the command processors and service routines.

<u>OFFSET</u>	<u>LENGTH</u>	<u>NAME</u>	<u>DESCRIPTION</u>
0	(0)	2	RESERVED
2	(2)	10 UPTUSER	RESERVED FOR INSTALLATION USE
12	(C)	1 UPTSWS	USERS ENVIRONMENT SWITCHES
	X...	....	RESERVED
	.1..	.... UPTNPRM	NO PROMPTING IS TO BE DONE
	..1.	.... UPTMID	PRINT MESSAGE IDENTIFIERS
	...1	.... UPTNCOM	NO USER COMMUNICATION ALLOWED VIA SEND COMMAND
	....	1... UPTPAUS	PAUSE FOR '?' WHEN IN NON-INTERACTIVE MODE
	....	.1.. UPTALD	ATTN HAS BEEN SPECIFIED AS LINE DELETE CHAR
13	(D)	1 UPTCDEL	CHAR DELETE CHARACTER
14	(E)	1 UPTLDEL	LINE DELETE CHARACTER
15	(F)	1	RESERVED



<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
	0 (0)
	15 (F)
UPTALD	12 X'04'
UPTCDEL	13 (D)
UPTLDEL	14 (E)
UPTMID	12 X'20'
UPTNCOM	12 X'10'
UPTNPRM	12 X'40'
UPTPAUS	12 X'08'
UPTSWS	12 (C)
UPTUSER	2 (2)

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
-------------	-------------------------------

<u>NAME</u>	<u>OFFSETS/ EQU VALUE</u>
-------------	-------------------------------

END OF UPT



Indexes to OS/VS publications are consolidated in the OS/VS Master Index, GC28-0602, and the OS/VS Master Index of Logic, GY28-0603. For additional information about any subject listed below, refer to other publications listed for the same subject in the Master Index.

## access method blocks and segments

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BTAM 61  
EXCP 25  
ISAM 41  
QSAM 25  
SAM 25

## data event control block

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(see access method block segments)

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(see access method block segments)

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appendage table block segment  
basic block segments  
common block segments  
device-dependent block segments  
foundation extension segment  
foundation prefix segment  
foundation segment  
message queue block segment  
polling list origin block segment  
scheduling-dependent block segment  
subroutine identification block segment

## BPAM

(see access method block segments)

## BSAM

(see access method block segments)

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(see binary synchronous communication)

## BTAM

(see access method block segments)

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(see MBBCCHHR)

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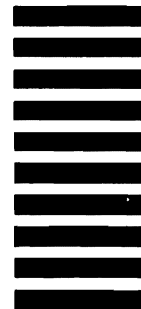
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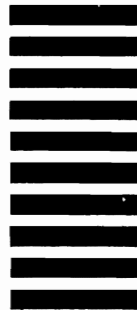
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