LY20-0896-7
File No. S370-36

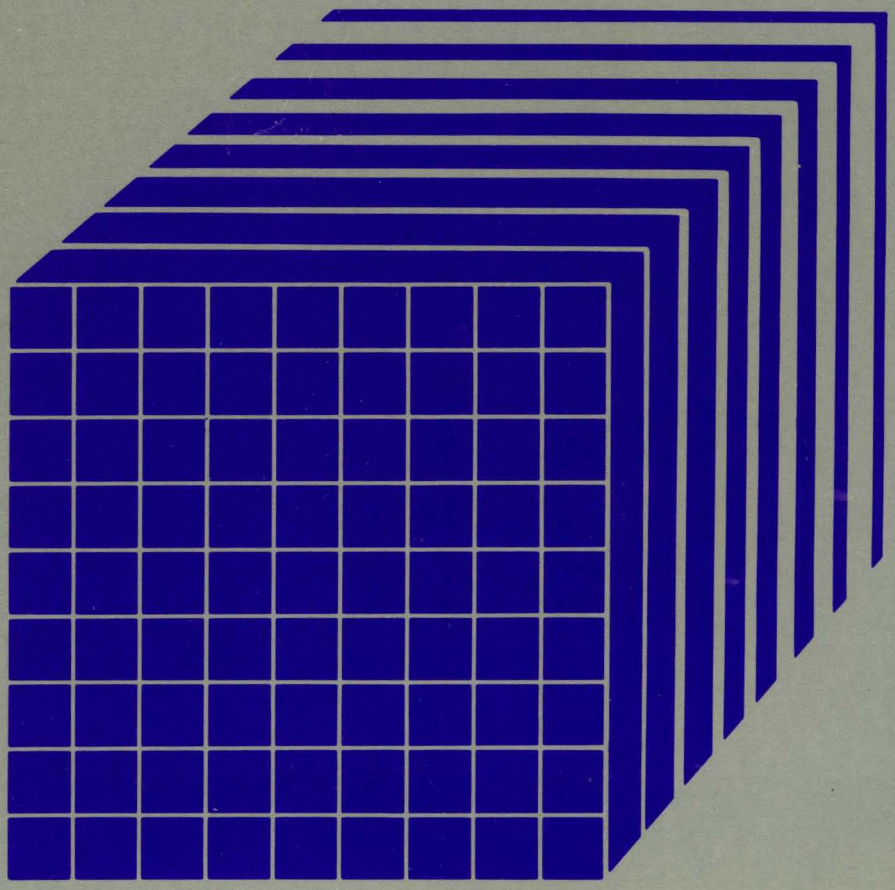
IBM

Virtual Machine/ System Product High Performance Option

Data Areas and Control Block Logic-CP

Release 5

LY20-0896-7



LY20-0896-7
File No. S370-36

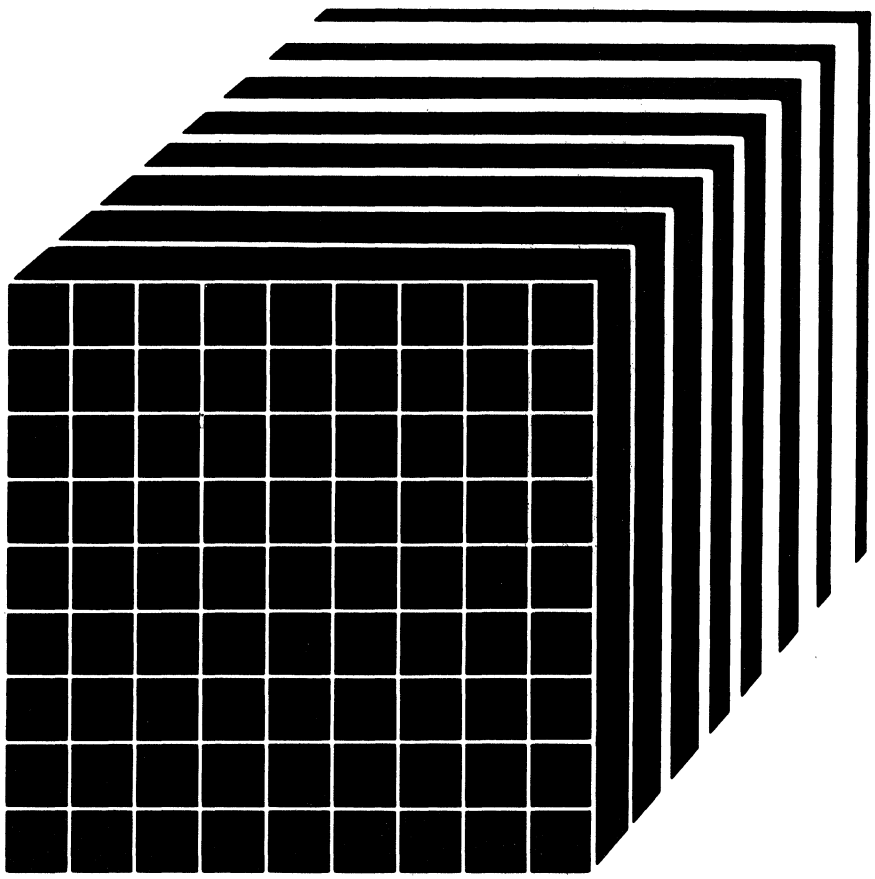
IBM

Virtual Machine/ System Product High Performance Option

Data Areas and Control Block Logic-CP

Release 5

LY20-0896-7



The term "VM/SP High Performance Option" applies to the VM/SP High Performance Option licensed program when used in conjunction with the VM/System Product licensed program.

| Eighth Edition (August 1987)

| This is a major revision of LY20-0896-6. See the Summary of Changes on Page xiv for the changes made to this manual. Technical changes or additions to the text and illustrations are indicated by a vertical line to the left of | the change. This edition applies to Release 5 of IBM Virtual Machine/System Product High Performance Option licensed program (Product Number (5664-173) and to later releases and modifications until otherwise | indicated in new editions or Technical Newsletters. This eighth edition is | a revision of the seventh edition (Release 4.2). To order the previous | edition that still applies to Release 4.2, use the following temporary | order number:

| Release 4.2 Seventh Edition LT00-1911

Changes are made periodically to the information herein; before using this publication in connection with the operation of IBM systems, consult the latest IBM System/370, 30xx and 4300 Processors Bibliography, GC20-0001, for the editions that are applicable and current.

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM licensed program in this publication is not intended to state or imply that only IBM's licensed program may be used. Any functionally equivalent program may be used instead.

Publications are not stocked at the address given below. Requests for IBM publications should be made to your IBM representative or to the IBM branch office serving your locality.

A form for readers' comments is provided at the back of this publication. If the form has been removed, comments may be addressed to International Business Machines Corporation, Department 52Q, Neighborhood Rd., Kingston, N.Y. 12401. IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

PREFACE

This publication contains descriptions of major data areas and control blocks used by the VM/SP High Performance Option (VM/ SP HPO) Control Program (CP).

VM/SP HPO Data Areas and Control Block Logic-CP comprises one main section and two appendixes, as follows:

- "Section 1. CP Data Areas and Control Blocks," which contains information about CP data areas and control blocks.
- "Appendix A. CP Equate Symbols," which contains assembler language equate symbols used by CP to reference data.
- "Appendix B. Data Areas and Control Block References," which contains information on the modules that reference data areas and control blocks.

OTHER VM/SP HPO DATA AREAS AND CONTROL BLOCKS

Some data areas and control blocks that affect virtual machine service and support programs are not included in this publication. Information concerning service and support program data areas and control blocks is found in the VM/SP HPO Service Routines Program Logic, LY20-0898.

RELATED PUBLICATIONS

This publication should be used in conjunction with the following publications:

IBM Virtual Machine/System Product High Performance Option:

System Logic and Problem Determination Guide-- CP, LY20-0897

CP for System Programming, SC19-6224

Virtual Machine Diagnosis Guide, LY24-5241

Library Guide, Glossary, and Master Index GC23-0187

IBM Virtual Machine/System Product:

System Logic and Problem Determination Guide, Volume 2 Conversational Monitor System (CMS), LY20-0893

HOW TO USE THIS PUBLICATION

This publication includes descriptions of the major control blocks and data areas used by the VM/SP HPO control program (CP). In general, data areas or work areas that are created and exist only during the execution of a particular module are not included in this publication.

Control blocks and data areas are groups of related information applicable to one or several system functions. Usually defined by the DSECT instruction, they can reflect current status, historical information, or a combination of both as applicable to CP functions. For the successful completion of a job, task, or process, the control blocks and data areas provide:

- Linkage facilities
- User information
- Hardware utilization
- Program execution.

All data areas and control blocks are arranged in alphabetic sequence by DSECT name. At the beginning of each data area or control block, a statement defines its use. The statement is then followed by a formatted block showing the fields with their labels and their displacement into the DSECT.

The formatted blocks for CP control areas are eight bytes wide, generally showing two fullwords per line. The PSA is the exception to this standardized width. The control areas for the PSA are shown 16 bytes wide or two doublewords per line.

When the name of a field is too long to fit into the formatted space, a pointer to the definition of the field is used instead of the field name. This pointer usually takes the first letter of the DSECT name, followed by an asterisk, which then is followed by a number. For example:

DSECT Name	Pointer Format
ALOCBLOK	A*1
JPSCBLOK	J*5
VMBLOK	V*29

Generally, the numbers are sequential, starting at the upper left and progressing to the lower right of the fields.

When there is a particularly large field (that is, one that uses more than three or four lines of the formatted block), vertical ellipses are used to denote that the displacement of this field is much larger than can be shown in the "picture" of the block. The use of diagonals (virgules or slashes) in a field, with or without a label, indicates that that field is reserved for IBM's use.

The symbol "**" is used in the Cross Reference listing to indicate that the field is equated with a value greater than X'FF'. Please refer to the data area mapping for the correct equate value.

Listing-related information, which follows the picture of the formatted block, appears as follows:

- The displacement of the field into the DSECT
- The name of the field and its length
- A brief description of the field
- The contents and meaning of the field (with bit definitions)
- A cross reference.

VM/SP HIGH PERFORMANCE OPTION LIBRARY

To understand the interrelationships of the publications in the VM/SP HPO library, see Figure 1, which follows this Preface.

The VM/SP HPO Library

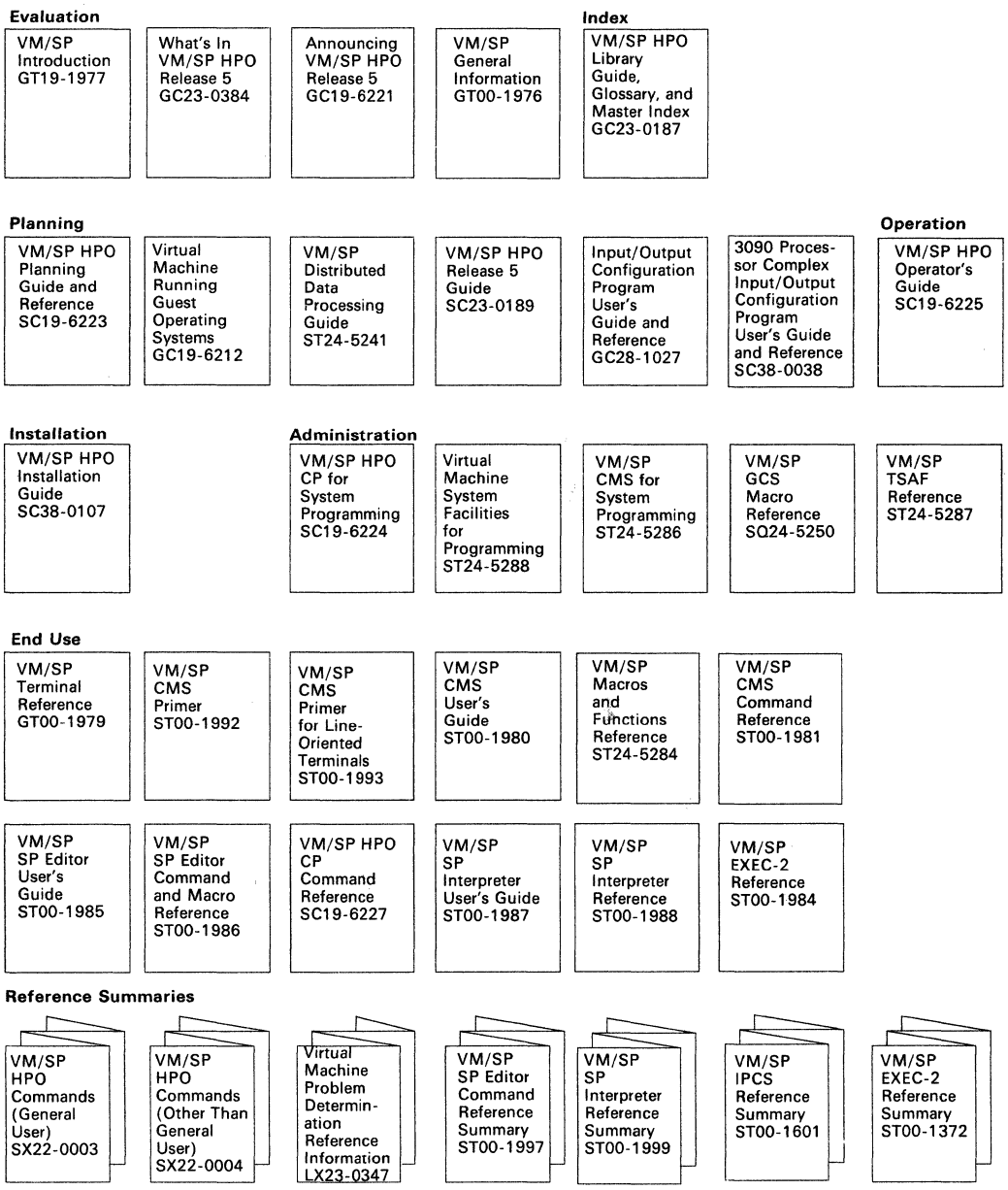


Figure 1. (Part 1 of 2) IBM VM/SP HPO Library

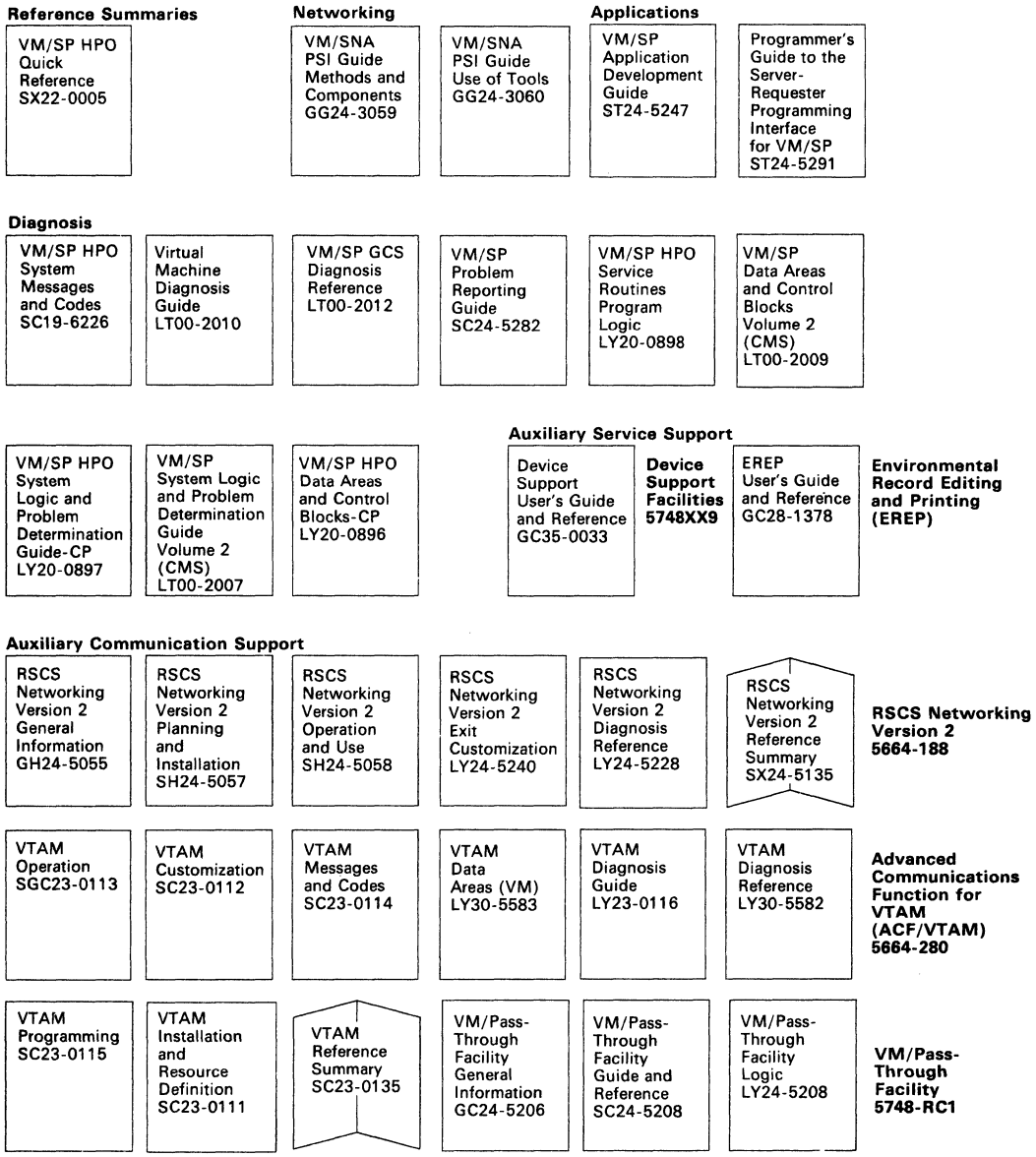


Figure 1. (Part 2 of 2) IBM VM/SP HPO Library

This page left blank

CONTENTS

FIGURES

This page left blank

SUMMARY OF CHANGES

Summary of Changes
For LY20-0896-7
As Updated August 1987
For VM/SP HPO Release 5

SELECTION OF PAGES ON A SYSTEM-WIDE, LEAST-FREQUENTLY-USED BASIS

Changed: Programming Support

These changes will improve performance in several ways:

- Improving the memory management of large working sets, shared pages, and the <16 Mb area. The free list becomes the major source for page replenishment. The flush list will be deemphasized. The core table scan becomes the primary method for free list replenishment. The disposable page collector is eliminated.
- Streamlining the QDROP and QADD processes. When a virtual machine drops from a queue, its pages will no longer be logically swapped and trimmed.
- Making Expanded Storage (called Paging Storage in this manual) more attractive as a swapping device.
- Preserving interactive response times in CMS intensive environments.
- Simplifying tuning.

SPOOL FILE LIMIT ENHANCEMENTS

Changed: Programming Support

The former limit of 9900 spool files on a system has been removed. With this change, there may exist up to 9900 spool files for each user. (Actually, the system-wide maximum is determined by the size of the checkpoint area. At present, this theoretical maximum would be over 100,000 for most systems. It is reasonable to assume that no system would ever approach that amount.)

Spool files will now have a user-unique spool ID, as well as a system-wide ID. Reader spool file blocks (SFBLOKs) will now be kept in the virtual storage of a special userid, SYSSPOOL. Printer and punch SFBLOKs will remain in FREE storage.

In conjunction with these enhancements, the checkpoint/forced start process has been improved to reconstruct the spool files more rapidly.

A new module, DMKCKR, has been generated.

SCHEDULER ENHANCEMENT

Changed: Programming Support

With this enhancement, virtual machines are moved from the eligible list to the run list only if processor time and sufficient main storage are available. This will help eliminate storage over-commitment and reduce response times.

NEW NOQ2 OPTION ON THE SET QDROP OFF COMMAND

New: Programming Support

Specify the SET QDROP OFF NOQ2 command for service virtual machines (like GCS/VSCS) that use system resources in small, frequent bursts. This command keeps such virtual machines in Q1, improving performance for the users of that service.

EXPANDED STORAGE (PAGING STORAGE) ENHANCEMENTS

New: Programming Support

A new macro, SYSXSTOR, is added. This macro controls the allocation of Paging Storage. You may continue to use SYSPAG to allocate Paging Storage, but SYSXSTOR offers these advantages:

- It is easier to use than SYSPAG
- For the 3090 Model 400, it allows you to generate Paging Storage greater than 64 increments.

AUTOMATIC REORDERING OF SYSPAG AREAS

New: Programming Support

A new parameter is added to the SYSPAG macro, ORDER=SYSTEM/USER. If ORDER=SYSTEM (the default) is coded, HPO will automatically order the devices allocated on the SYSPAG macro to create the most efficient use of the channels and control units. This will decrease the I/O contention by evenly distributing the I/O activity over the available I/O paths. A new module, DMKXST, has been generated.

ERROR RECORDING ENHANCEMENTS

New: Programming Support

For a 3090 Processor, the channel check handler and machine check handler

will now provide more information in the error records. Specifically, these records will now tell you whether or not the hardware error actually affected system performance.

NEW NOVF PARAMETER ON THE OPTION DIRECTORY ENTRY

New: Programming Support

Specifying the NOVF parameter on a user's OPTION control statement in the directory will deny that user access to the Vector Facility.

4381 PROCESSOR COMPLEX MODELS 11, 12, 13, AND 14

Changed: Hardware Support

The 4381 Processor Complex Models 1, 2, and 3 are replaced and extended by the Models 11, 12, 13, and 14.

3090 PROCESSOR COMPLEX MODELS 150, 180, AND 400

Changed: Hardware Support

VM/SP HPO now supports the 3090 Processor Complex Models 150, 180, and 400.

LOGICAL DEVICE HOST LIMIT RELIEF

Changed: Programming Support

This support removes the restriction that no more than 8 virtual machines can create and use logical devices concurrently. Now, any number of virtual machines can create up to 512 logical devices as long as the number of logical devices in the system does not exceed 4096.

3480 VOLUME SERIAL ERROR RECORDING

Changed: Programming Support

Users can now keep track of the error frequency for 3480 tapes by examining the volume serial in 3480 outboard records (OBR) or miscellaneous data records (MDR).

3422 MAGNETIC TAPE SUBSYSTEM

Changed: Programming Support

VM/SP HPO provides programming support for the 3422 Magnetic Tape Subsystem.

TRANSPARENT SERVICES ACCESS FACILITY (TSAF)

New: Programming Support

The transparent services access facility lets users connect to and communicate with local or remote virtual machines within a group of systems. This facility consists of the TSAF virtual machine component, APPC/VM, and two CP system services. APPC/VM is a modified subset of IUCV. With the TSAF virtual machine, it provides services within a single system and throughout a group of systems, unlike IUCV, which provides services only within a single system. The TSAF virtual machine component handles communication between systems by letting APPC/VM paths span more than one system. The QUERY CPTRAP command has also been added.

The following new modules have been generated: DMKCQC, DMKIDR, DMKIUB, DMKIUN, DMKIUP, DMKIUS, DMKTRX, DMKCRM.

NATIONAL LANGUAGES SUPPORT

New: Programming Support

VM/SP HPO now supports a variety of national languages for use in their native countries. Updates have been made to modules and data areas providing this support, specifically those handling CP messages.

The following new modules have been generated: DMKHVF, DMKMES, DMKVBM.

ALTERNATE NUCLEUS SUPPORT

New: Programming Support

Alternate nucleus support makes it easier to create and IPL backup copies of the CP nucleus when the primary nucleus is damaged or unavail able.

PRINTER SUPPORT ENHANCEMENTS

Changed: Programming Support

The printer support enhancements include the addition of a SPOOL system service facility that provides support for a printer subsystem. The DESTination option allows you to select a specifc printer or punch to process your print, punch, or console file. Two new DIAGNOSE codes allow a user to specify additional information about a print file. The CMS PRINT command has been enhanced to support an OVersize option and a special carriage control character to allow a longer data line.

LOGON/LOGOFF ENHANCEMENTS

Changed: Programming Support

The LOGON/LOGOFF enhancements improve system availability to users and resolve the problem of conflicting messages during LOGOFF processing.

A new module, DMKUSQ, has been generated.

ERROR LOGGING SYSTEM SERVICE

Changed: Programming Support

The error logging system service, a new CP system service, allows a virtual machine to receive a copy of all records currently written to the CP error recording area.

SPOOL FILE COMPRESSION SUPPORT ENHANCEMENT

Changed: Programming Support

An enhancement to SPOOL File Compression Support improves the reliability of transmitting spooled data between systems.

ASCII ENHANCEMENTS

Changed: Programming Support

Various enhancements have been made to the support of ASCII devices.

DOCUMENTATION CHANGES

Minor editorial and technical changes have been made throughout this publication.

Summary of Changes
for LY20-0896-6
As Updated January 1986
for VM/SP HPO Release 4.2

AUTO-DEACTIVATION OF RESTRICTED PASSWORDS

New: Programming support

VM/SP HPO now enhances system integrity by minimizing the exposure of restricted passwords. The directory enhancement removes the restriction on the number of USER entries that can be defined in the directory. Also, directory profile support provides a means by which installations can optimize the number of commonly repeated control statements in USER entries in the source directory.

ACCESS VERIFICATION ROUTINES

New: Programming support

VM/SP HPO now provides added support for access verification routines by providing a standard interface to the RACF/VM Support PRPQ or user-written routines. This provides a higher level of security.

VECTOR FACILITY

New: Hardware support

Support is provided for the Vector Facility in System/370 mode configured to a 3090 Processor. The Vector Facility is a synchronous vector/scaler instruction processor that can manipulate values (usually floating point) at a high speed. Compiled engineer and scientific Fortran applications can use the array processing capability of the Vector Facility. VM/HPO supports multiple virtual machines' use of this facility.

PAGE MIGRATION

Changed: Programming support

Page migration is changed to select pages (rather than segments) for migration on a reference basis instead of by time stamp (age basis). Also, pages are migrated down the demand page hierarchy, instead of being migrated directly to the preallocated migration area. This improves retrieval time for pages soon to become active. Swap table migration is improved by being invoked independently of page migration.

3380 DIRECT ACCESS STORAGE DEVICE MODELS AE4/BE4

New: Hardware support

VM/SP HPO now supports the 3380 Models AE4/BE4. They are count-key- data (CKD) devices that attach to high speed channels only, using the 3380 Control Unit. The 3380 can attach up to 16 physical spindles (32 logical devices) of 3380 Models AE4 and BE4 directly to data streaming channels. The AE4 models attach to the system and may be the first device on a string. Strings of different 3380 device models may be intermixed at the control unit level.

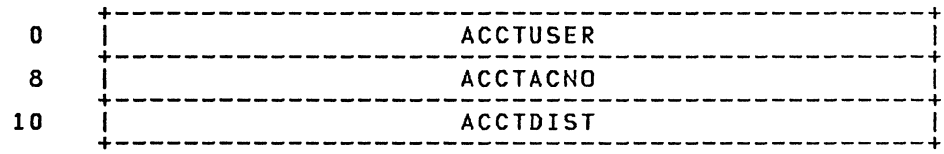
SECTION 1. CP DATA AREAS AND CONTROL BLOCKS

This section contains descriptions of the major CP data areas and control blocks.

This page left blank.

ACCTBLOK: USER ACCOUNTING BLOCK

ACCTBLOK provides header information for spool files. The VMACOUNT field in the VMELOK points to ACCTBLOK. ACCTBLOK is found in ACCOUNT copy.



SIZE

ACCTBLOK SIZE IN DOUBLEWORDS (ACCTLENG) 3

Disp	Name	Len	Key	Description
0	ACCTUSER	8		VIRTUAL MACHINE IDENTIFICATION
8	ACCTACNO	8		VIRTUAL MACHINE ACCOUNTING NUMBER
10	ACCTDIST	8		VIRTUAL MACHINE DISTRIBUTION NUMBER

CROSS REFERENCE

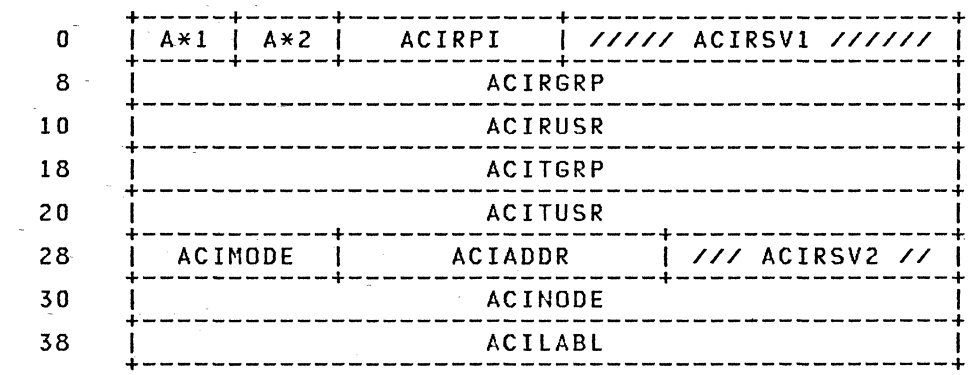
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

ACCTACNO 0008 .. ACCTDIST 0010 .. ACCTLENG .... 3 ACCTUSER 0000 .

ACIPARMS: ACCESS CONTROL INTERFACE PARAMETERS

ACIPARMS communicates information to the access verification routines. ACIPARMS is found in ACIPARMS copy.



SIZE

DMKUDRFU BUFFER LENGTH TO CLEAR (ACICLR1) 18
ACIPARMS SIZE IN DOUBLEWORDS (ACISIZE) 8

Disp	Name	Len	Key	Description
0	ACIUSRID	8		USERID FIELD FOR DMKUDRFU
0	ACIFCN	1	A*1	FUNCTION REQUEST

Values defined in ACIFCN

00 ACILINK	LINK ACCESS VALIDATION
1C ACISTCP	STCP FUNCTION REQUEST
18 ACIALTU	ALTERNATE USERID VALIDATION
14 ACINPMT	NO PROMPT OPTION
10 ACILOG	LOGON PASSWORD VALIDATION
0C ACIDEL	DELETE USER REQUEST
08 ACITAG	NODE ACCESS VALIDATION
04 ACISPOOL	SPOOL ACCESS VALIDATION

1	ACICODE	1	A*2	RETURN CODE

Values defined in ACICODE

00 ACIAUTH	ACCESS AUTHORIZED
10 ACITERM	TERMINAL I/O ERROR
0C ACIFAIL	LOGOFF USER
08 ACINOAC	ACCESS DENIED
04 ACIDEFR	ACCESS DEFERRED

2	ACIRPI	2		RESERVED FOR DMKRPI
4	ACIRSV1	4		RESERVED FOR IBM USE
8	ACIRGRP	8		REQUESTOR'S GROUP NAME

10	ACIRUSR	8	REQUESTOR'S USERID
18	ACITGRP	8	TARGET GROUP NAME
18	ACIWUSR	8	WORKING (TARGET) USERID
18	ACIUDIR	32	BUFFER USED FOR DMKUDRFU
18	ACIPASS	40	LOGON PASSWORDS
20	ACITUSR	8	TARGET USERID
20	ACIAUSR	8	ALTERNATE USERID ASSIGNED
28	ACIMODE	2	ACCESS MODE
2A	ACIADDR	3	RESOURCE ADDRESS
2D	ACIRSV2	3	RESERVED FOR IBM USE
30	ACINODE	8	RESOURCE NODENAME
30	ACICMD	8	COMMAND NAME
38	ACILABL	8	VOLUME LABEL

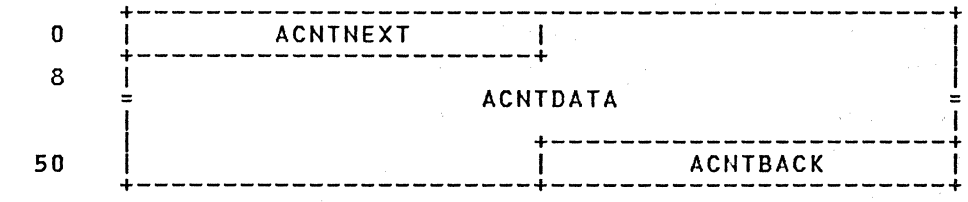
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

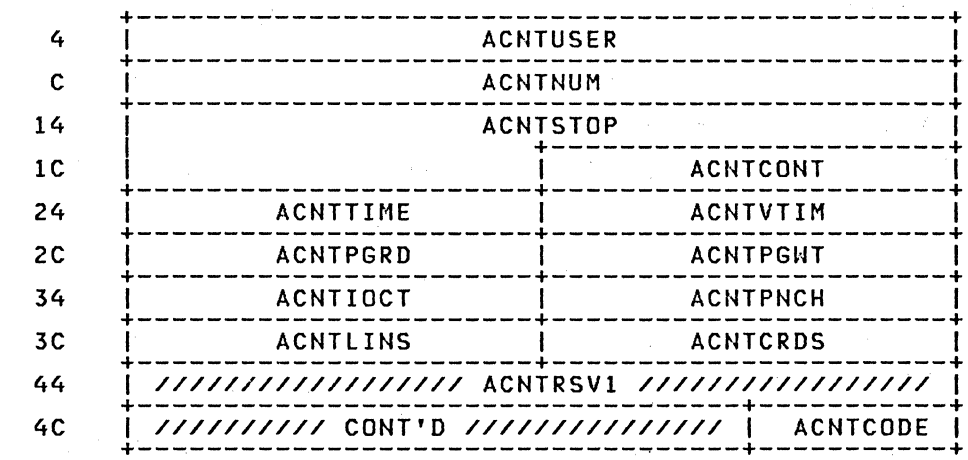
ACIADDR	002A	..	ACIFAIL	0001	0C	ACIPASS	0018	..	ACISTCP	0000	1C
ACIALTU	0000	18	ACIFCN	0000	..	ACIRGRP	0008	..	ACITAG	0000	08
ACIAUSR	0020	..	ACILABL	0038	..	ACIRPI	0002	..	ACITERM	0001	10
ACIAUTH	0001	00	ACILINK	0000	00	ACIRSV1	0004	..	ACITGRP	0018	..
ACICLR1	....	18	ACILOG	0000	10	ACIRSV2	002D	..	ACITUSR	0020	..
ACICMD	0030	..	ACIMODE	0028	..	ACIRUSR	0010	..	ACIUDIR	0018	..
ACICODE	0001	..	ACINOAC	0001	08	ACISIZE	....	8	ACIUSRID	0000	..
ACIDEFR	0001	04	ACINODE	0030	..	ACISPOOL	0000	04	ACIWUSR	0018	..
ACIDEL	0000	0C	ACINPMT	0000	14						

ACNTBLOK: ACCOUNTING CARD BUFFER BLOCK

ACNTBLOK provides accounting and statistical information on each user that has used system facilities. The ARSPAC field in the prefix storage area (PSA) points to the start of the chain of ACNTBLOKs. ACNTBLOK is found in ACCOUNT copy.



ACCOUNT CARD FORMAT FOR USER CARDS



SIZE

ACNTBLOK SIZE IN DOUBLEWORDS (ACNTSIZE) B

Disp	Name	Len	Key	Description
0	ACNTNEXT	4		ADDRESS OF NEXT ACNTBLOK IN CHAIN
4	ACNTDATA	80		ACCOUNTING INFORMATION
4	ACNTUSER	8		VIRTUAL MACHINE IDENTIFICATION
C	ACNTNUM	8		VIRTUAL MACHINE ACCOUNTING NUMBER
14	ACNTSTOP	12		DATE AND TIME OF ACCOUNTING MMDDYYHHMMSS
14	ACNTSNA	62		SNA CCS ACCOUNTING DATA
20	ACNTCONT	4		NUMBER OF SECONDS CONNECTED

24	ACNTTIME	4	MILLISECONDS OF CPU TIME USED
24	ACNTDEVC	1	DEVICE CLASS (TYPE 02, 03 RECORDS)
25	ACNTDEVT	1	DEVICE TYPE (TYPE 02, 03 RECORDS)
26	ACNTDEVM	1	DEVICE MODEL (TYPE 02, 03 RECORDS)
27	ACNTDEVF	1	DEVICE FEATURE (TYPE 02, 03 RECORDS)
28	ACNTVTIM	4	MILLISECONDS OF VIRTUAL CPU TIME USED
28	ACNTNCYL	4	SEE PROGRAMMING NOTE
2C	ACNTPGRD	4	TOTAL PAGE READS
30	ACNTPGWT	4	TOTAL PAGE WRITES
34	ACNTIOCT	4	VIRTUAL SIO COUNT FOR NON-SPOOLED I/O
38	ACNTPNCH	4	VIRTUAL CARD COUNT - SPOOLED PUNCH
3C	ACNTLINS	4	VIRTUAL LINE COUNT - SPOOLED PRINTER
3C	ACNTRFLG	1	REMOTE INDICATOR FLAG (02, 08 RECORDS ONLY) 'R' if ACNTRMID IS REMOTE RESID. BLANK OTHERWISE

Values defined in ACNTRFLG

D9	ACNTRMTE	INDICATES A REMOTE DEVICE (CODE 02, 08 RECORDS ONLY)

40	ACNTCRDS	4	VIRTUAL CARD COUNT - SPOOLED READER
44	ACNTVVT	4	MILLISECONDS OF VIRTUAL VF TIME USED (TYPE 01 RECORD ONLY)
44	ACNTRMID	8	TERMINAL ID (02, 08 RECORDS ONLY)
48	ACNTVTT	4	MILLISECONDS OF VECTOR FACILITY TIME USED (TYPE 01 RECORD ONLY)
52	ACNTCODE	2	ACCOUNTING CARD IDENTIFICATION CODE
54	ACNTBACK	4	ADDRESS OF PREVIOUS ACNTBLOK IN CHAIN

PROGRAMMING NOTES

ACNTCODE CP-Initiated Card Codes

C'01'	USER VIRTUAL MACHINE ACCOUNTING CARD
C'02'	USER DEDICATED DEVICE ACCOUNTING CARD
C'03'	USER TEMPORARY DISK SPACE ACCOUNTING CARD
C'04'	INVALID LOGON/AUTOLOG PASSWORD ACCT CARD
C'05'	PROTECTED MINIDISK LINK ACCOUNTING CARD
C'06'	INVALID LINK PASSWORD ACCOUNTING CARD
C'07'	VTAM SERVICE APPLICATION ACCOUNTING CARD
C'08'	VIRTUAL MACHINE CONSOLE ACCOUNTING CARD

ACNTCODE Diagnose X'4C'-Initiated Card Codes

C'C0'	USER FORMATTED ACCOUNTING CARD
C'C1'	USER VIRTUAL MACHINE ACCOUNTING CARD
C'C2'	USER DEDICATED DEVICE ACCOUNTING CARD
C'C3'	USER TEMPORARY DISK SPACE ACCOUNTING CARD

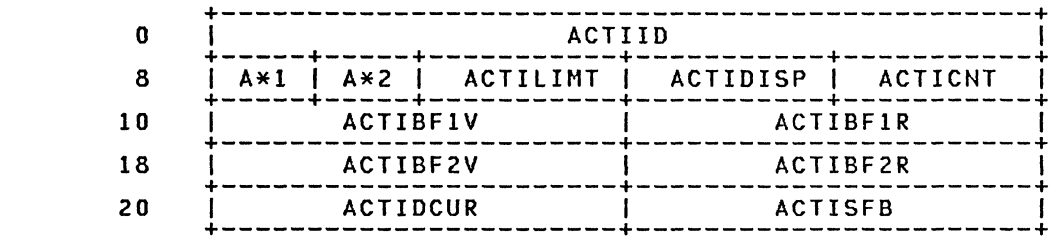
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

ACNTBACK	0054	..	ACNTDEVM	0026	..	ACNTPGRD	002C	..	ACNTSNA	0014	..
ACNTCODE	0052	..	ACNTDEVT	0025	..	ACNTPGWT	0030	..	ACNTSTOP	0014	..
ACNTCONT	0020	..	ACNTIOCT	0034	..	ACNTPNCH	0038	..	ACNTTIME	0024	..
ACNTCRDS	0040	..	ACNTLINS	003C	..	ACNTRFLG	003C	..	ACNTUSER	0004	..
ACNTDATA	0004	..	ACNTNCYL	0028	..	ACNTRMID	0044	..	ACNTVTIM	0028	..
ACNTDEVC	0024	..	ACNTNEXT	0000	..	ACNTRMTE	003C	D9	ACNTVTT	0048	..
ACNTDEVF	0027	..	ACNTNUM	000C	..	ACNTSIZE	....	B	ACNTVVT	0044	..

ACTIBLOK: ACCOUNTING INFORMATION BLOCK

ACTIBLOK contains the user information specified in the SYSACNT macro as well as information about the current spool file that contains accounting records. There are two pointers to ACTIBLOK: the ASFBACO field in PSA and the DMKSYSAC field in DMKSYS. ACTIBLOK is found in ACCOUNT copy.



Disp	Name	Len	Key	Description
0	ACTIID	8		VIRTUAL MACHINE IDENTIFICATION
8	ACTICLAS	1	A*1	CLASS OF OUTPUT FILE
9	ACTIFLAG	1	A*2	ACCOUNTING STATUS
A	ACTILIMT	2		LIMIT TO CLOSE FILE
C	ACTIDISP	2		DISPLACEMENT IN BUFFER OF NEXT RECORD
E	ACTICNT	2		COUNT OF RECORDS IN BUFFER
10	ACTIBF1V	4		VIRTUAL ADDRESS OF BUFFER ONE
14	ACTIBF1R	4		REAL ADDRESS OF BUFFER ONE
18	ACTIBF2V	4		VIRTUAL ADDRESS OF BUFFER TWO
1C	ACTIBF2R	4		REAL ADDRESS OF BUFFER TWO
20	ACTIDCUR	4		CURRENT BUFFER DASD ADDRESS
24	ACTISFB	4		ADDRESS OF SPOOL FILE BLOCK

Values defined in ACTISFB

80	ACTIPCH	INDICATE PUNCH FILES
40	ACTIAC	INDICATE ACCOUNTING ACTIVE
20	ACTICL	INDICATE FILE TO BE CLOSED
10	ACTISFCK	INDICATE CHECKPOINT TAKEN

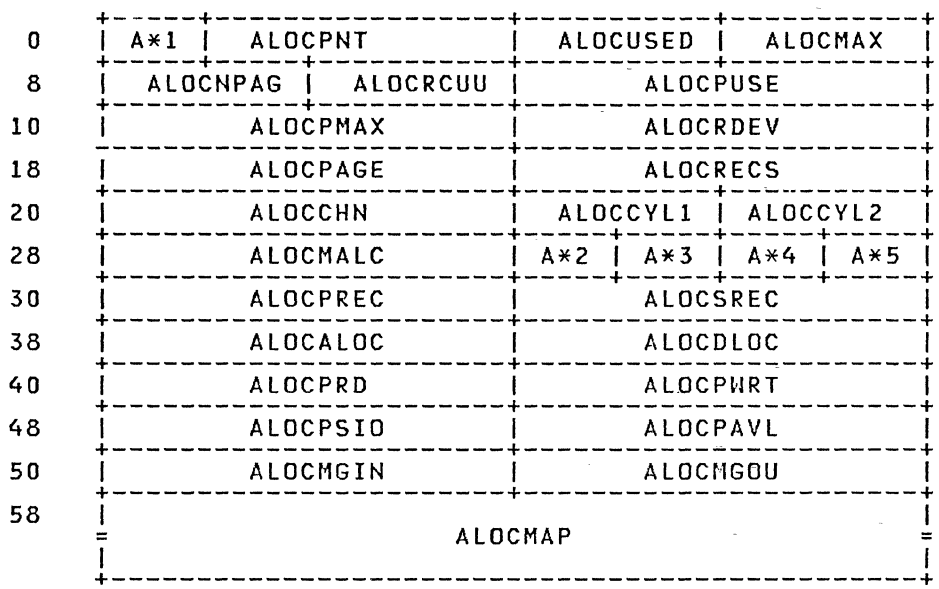
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

ACTIAC	0024	40	ACTIBF2V	0018	..	ACTIDCUR	0020	..	ACTILIMT	000A	..
ACTIBF1R	0014	..	ACTICL	0024	20	ACTIDISP	000C	..	ACTIPCH	0024	80
ACTIBF1V	0010	..	ACTICLAS	0008	..	ACTIFLAG	0009	..	ACTISFB	0024	..
ACTIBF2R	001C	..	ACTICNT	000E	..	ACTIID	0000	..	ACTISFCK	0024	10

ALOCBLOK: DASD CYLINDER ALLOCATION BLOCK

ALOCBLOK provides information on the temporary disk space available to a virtual machine. The RDEVALLN field in the RDEVBLOK points to the ALOCBLOK. ALOCBLOK is found in ALLOC copy.



Disp	Name	Len	Key	Description
0	ALOCFLG	0	A*1	ALOCBLOK FLAGS
	Values defined in ALOCFLG			
	80 ALOCTDSK			TDISK ALLOCATION BLOCK
	20 ALOCSW			SWAP AREA
	10 ALOCDU			DUMP FILE AREA
	08 ALOCPP			'TOP' LEVEL PAGING ONLY
	04 ALOCPG			PAGING ONLY
	02 ALOCPM			PAGE MIGRATION
	01 ALOCPS			SPOOLING AND/OR PAGING
0	ALOCPNT	4		NEXT ALOCBLOK ON RDEVBLOK CHAIN
4	ALOCUSED	2		NO. OF CYLINDERS CURRENTLY IN USE
6	ALOCMAX	2		NO. OF CYLINDERS FOR AREA
8	ALOCNPAG	2		NO. OF PAGES/CYLINDER
A	ALOCRCUU	2		DEVICE ADDRESS
C	ALOCPUSE	4		TOTAL PAGES ALLOCATED
10	ALOCPMAX	4		TOTAL PAGES IN RECBLOKS

14	ALOCRDEV	4		RDEVBLOK POINTER
18	ALOCPAGE	4		CHAIN ANCHOR FOR PAGE RECBLOKS
1C	ALOCRECS	4		CHAIN ANCHOR FOR SPOOL RECBLOKS
20	ALOCCHN	4		NEXT ALOCBLOK ON SYSPLIST CHAIN
24	ALOCCYL1	2		LOWEST CYL. NO. IN THIS BLOCK
26	ALOCCYL2	2		HIGHEST CYL. NO. IN THIS BLOCK
28	ALOCMALC	4		NO. OF ALLOC. CAUSED BY MIG.
2C	ALOCTMSI	1	A*2	'N-SELECT' INITIAL VALUE
2D	ALOCTMS	1	A*3	'N-SELECT' CURRENT VALUE
2E	ALOCCSR	1	A*4	MOVING CURSOR FLAGS

Values defined in ALOCCSR

80	ALOCDOWN	CURSOR MOVING TOWARDS 1ST CYL
40	ALOCRSET	RESET CURSOR TO 1ST AVAIL CYL
20	ALOCRWRT	REWRITE PAGE IN PLACE

2F	ALOCRSV3	1	A*5	RESERVED FOR FUTURE USE
30	ALOCPREC	4		CURRENT RECBLOK FOR PAGING
34	ALOCSREC	4		CURRENT RECBLOK FOR SPOOLING
38	ALOCALOC	4		NUMBER OF ALLOCATIONS
3C	ALOCDLOC	4		NUMBER OF DE-ALLOCATIONS
40	ALOCPRD	4		NUMBER OF PAGES READ
44	ALOCPWRT	4		NUMBER OF PAGES WRITTEN
48	ALOCPSIO	4		NUMBER OF PAGING SIO'S
4C	ALOCPAVL	4		TOTAL AVAILABLE PAGES IN AREA
50	ALOCMGIN	4		NO. PAGES MIGRATED IN
54	ALOCMGOU	4		NO. PAGES MIGRATED OUT

58 ALOCMAP 0 CYLINDER ALLOCATION BYTE MAP

Note that the size of the ALOCMAP is variable and depends on the number of cylinders in the range ALLOCYL1 to ALLOCYL2.

Bits defined in ALOCMAP (1 bit/cylinder) for all areas except TDISK.

BIT = 0 CYLINDER IS AVAILABLE
BIT = 1 CYLINDER HAS BEEN ASSIGNED

Bytes defined in TDISK ALOCMAP (1 byte/cylinder)

80 ALOCASGN ASSIGNED
02 ALOCTDK TDISK ALLOCATION

Use of bytes in TDISK ALOCMAP (BYTEMAP)

X'82' ASSIGNED
X'02' AVAILABLE

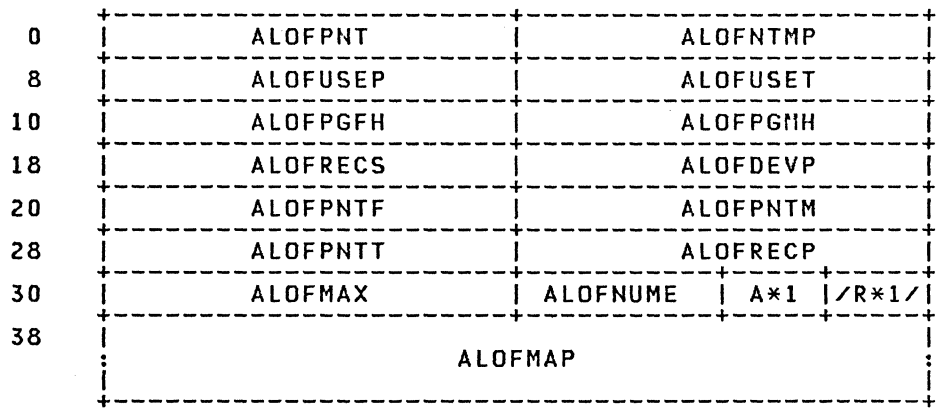
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

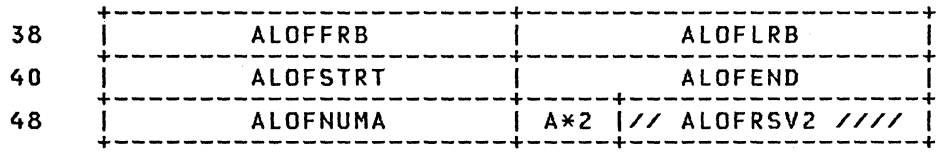
ALOCALOC	0038	..	ALOCMAP	0058	..	ALOCPP	0000	08	ALOCRSET	002E	40
ALOCASGN	0058	80	ALOCMAX	0006	..	ALOCPRD	0040	..	ALOCRSV3	002F	..
ALOCCHN	0020	..	ALOCMGIN	0050	..	ALOCPREC	0030	..	ALOCRWRT	002E	20
ALOCCSR	002E	..	ALOCMGOU	0054	..	ALOCPS	0000	01	ALOCSREC	0034	..
ALOCCYL1	0024	..	ALOCNPAG	0008	..	ALOCPSIO	0048	..	ALOCSW	0000	20
ALOCCYL2	0026	..	ALOCPAGE	0018	..	ALOCPUSE	000C	..	ALOCTDK	0058	02
ALOCDLOC	003C	..	ALOCPAVL	004C	..	ALOCPWRT	0044	..	ALOCTDSK	0000	80
ALOCDOWN	002E	80	ALOCPG	0000	04	ALOCRCUU	000A	..	ALOCTMS	002D	..
ALOCDU	0006	10	ALOCPM	0000	02	ALOCRDEV	0014	..	ALOCTMSI	002C	..
ALOCFLG	0000	..	ALOCPMAX	0010	..	ALOCRECS	001C	..	ALOCUSED	0004	..
ALOCMALC	0028	..	ALOCPNT	0000	..						

ALOFBLOK: FB EXTENT ALLOCATION BLOCK

ALOFBLOK is used to control the allocation of temporary (TEMP) space on FBA devices. The ALOFBLOK also serves as the anchor (ALOFPNT) for ALOTBLOKs that describe temporary disk allocations. The RDEVALLN field of FBA RDEVBLOKs points to the ALOFBLOK. ALOFBLOK is found in ALLOC copy.



MAP - ONE MAP ENTRY PER TEMP/PAGE EXTENT



SIZE

BASE ALOFBLOK SIZE IN DOUBLEWORDS (ALOFRTZ) 7
EXTENT MAP ENTRY SIZE IN DOUBLEWORDS (ALOFEXTZ) 3

Disp	Name	Len	Key	Description
0	ALOFPNT	4		ADDRESS OF FIRST TDISK ALOTBLOK
4	ALOFNTMP	4		NUMBER OF NON-PAGE AND NON-TEMP PAGES
8	ALOFUSEP	4		SEE PROGRAMMING NOTE
C	ALOFUSET	4		SEE PROGRAMMING NOTE
10	ALOFPGFH	4		RECBLOK ANCHOR FOR PREFERRED FH
14	ALOFPGMH	4		RECBLOK ANCHOR FOR PREFERRED MH
18	ALOFRECS	4		RECBLOK ANCHOR FOR NON-PREFERRED
1C	ALOFDEVP	4		ADDRESS OF RDEVICE BLOCK
20	ALOFPNTF	4		ADDRESS OF NEXT FH PAGING ALOFBLOK

24	ALOFPNTM	4		ADDRESS OF NEXT MH PAGING ALOFBLOK
28	ALOFPNTT	4		ADDRESS OF NEXT SPOOLING ALOFBLOK
2C	ALOFRECP	4		TEMP CYLINDERS ON PAGE CHAIN RECBLOKS
30	ALOFMAX	4		MAXIMUM NUMBER OF PAGES AVAILABLE
34	ALOFNUME	2		NUMBER OF EXTENTS REFLECTED IN MAP
36	ALOFFLG	1	A*1	VOLUME PAGING USAGE FLAG

Values defined in ALOFFLG

80	ALOFTDSK	T-DISK
09	ALOFBOTH	BOTH PREFERRED AND NON-PREFERRED
08	ALOFPREF	PREFERRED
04	ALOFPRFH	PREFERRED FH
02	ALOFPRMH	PREFERRED MH
01	ALOFNONP	NON-PREFERRED

37	ALOFRSV1	1		RESERVED FOR IBM USE
38	ALOFMAP	0		SEE PROGRAMMING NOTE
38	ALOFFRB	4		ADDRESS OF FIRST FBA RECBLOK FOR EXTENT
3C	ALOFBRB	4		ADDRESS OF LAST FBA RECBLOK FOR EXTENT
40	ALOFSTRT	4		PAGE NUMBER OF FIRST PAGE IN THIS EXTENT
44	ALOFEND	4		PAGE NUMBER OF LAST PAGE IN THIS EXTENT
48	ALOFNUMA	4		NUMBER OF AVAILABLE PAGES IN THIS EXTENT
4C	ALOFFLG3	1	A*2	EXTENT TYPE FLAG

Values defined in ALOFFLG3

80	ALOFEXTP	PAGE TYPE EXTENT
40	ALOFEXTT	TEMP TYPE EXTENT
10	ALOFEXTD	DUMP TYPE EXTENT

4D	ALOFRSV2	3		RESERVED FOR IBM USE

PROGRAMMING NOTES:

ALOFUSEP IS THE NUMBER OF PREFERRED PAGING CYLINDERS CURRENTLY IN USE (ALLOCATED) PLUS THE NUMBER ON NON-PAGING CYLINDERS (ALLOCATED AND UNALLOCATED) ON THE SAME VOLUME. THE VALUE OF ALOCUSEP IS ALOCMAX MINUS THE NUMBER OF PREFERRED MH CYLINDERS AVAILABLE FOR PAGING BUT NOT IN USE. (PREFERRED FH CYLINDERS ARE CONSIDERED TO BE IN USE.)

ALOFUSET IS THE NUMBER ON NON-PREFERRED CYLINDERS CURRENTLY IN USE (ALLOCATED) PLUS THE NUMBER OF PREFERRED FH AND MH PAGING CYLINDERS (ALLOCATED AND UNALLOCATED) ON THE SAME VOLUME. THE VALUE OF ALOCUSET IS ALOCMAX MINUS THE NUMBER OF TEMPORARY CYLINDERS AVAILABLE BUT NOT CURRENTLY IN USE.

ALOFMAP IS THE EXTENT MAP. EACH OF ITS 24 BYTE ENTRIES IS A CONTIGUOUS GROUP OF PAGES THAT WERE ALLOCATED AS TEMP SPACE. THE ALLOCATION OF PAGES (WHETHER A PAGE IS AVAILABLE OR IN

USE) WITHIN A PARTICULAR EXTENT IS CONTROLLED BY RECBLOKS
CHAINED OFF THAT EXTENT MAP ENTRY.

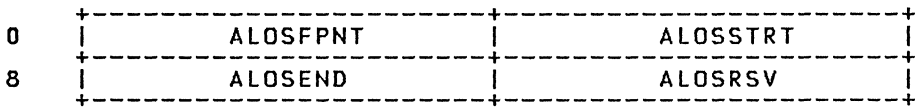
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

ALOFBOTH	0036	09	ALOFFLG3	004C	..	ALOFPGFH	0010	..	ALOFPRMH	0036	02
ALOFBRB	003C	..	ALOFFRB	0038	..	ALOFPGMH	0014	..	ALOFRECP	002C	..
ALOFDEVP	001C	..	ALOFMAP	0038	..	ALOFPNT	0000	..	ALOFRECS	0018	..
ALOFEND	0044	..	ALOFMAX	0030	..	ALOFPNTF	0020	..	ALOFRTZ	....	7
ALOFEXTD	004C	10	ALOFNONP	0036	01	ALOFPNTM	0024	..	ALOFSTRT	0040	..
ALOFEXTP	004C	80	ALOFNTMP	0004	..	ALOFPNTT	0028	..	ALOFTDSK	0036	80
ALOFEXTT	004C	40	ALOFNUMA	0048	..	ALOFPREF	0036	08	ALOFUSEP	0008	..
ALOFEXTZ	....	3	ALOFNUME	0034	..	ALOFPRFH	0036	04	ALOFUSET	000C	..
ALOFFLG	0036	..									

ALOSBLOK: FREE TEMPORARY DISK SPACE EXTENT BLOCK

ALOSBLOK is used to describe unused temporary disk space on FB-512 devices. Space represented by this control block is available for allocation as T-disk space. The ALOTPSUB field of the ALOTBLOK points to the ALOSBLOK. ALOSBLOK is found in ALLOC copy.



SIZE

ALOSBLOK SIZE IN DOUBLEWORDS (ALOSSZ) 2

Disp	Name	Len	Key	Description
0	ALOSFPNT	4		ADDRESS OF NEXT ALOSBLOK
4	ALOSSTRT	4		NUMBER OF FIRST BLOCK OF FREE EXTENT
8	ALOSEND	4		NUMBER OF LAST BLOCK OF FREE EXTENT
C	ALOSRSV	4		RESERVED

CROSS REFERENCE

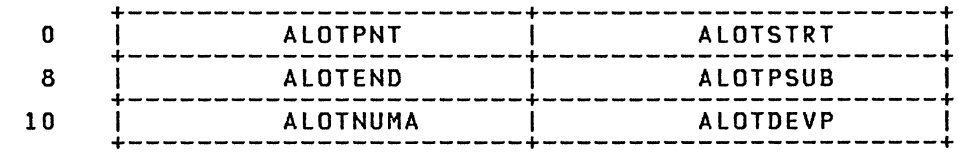
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

ALOSEND 0008 .. ALOSRSV 000C .. ALOSSTRT 0004 .. ALOSSZ ....
ALOSFPNT 0000 ..

ALOTBLOK: FBA T-DISK ALLOCATION BLOCK

ALOTBLOK describes the original allocation of TDISK space on FBA devices. ALOSBLOKs that map the free TDISK space within the original extent are chained from the ALOTBLOK. ALOTBLOK is found in ALLOC copy.



SIZE

ALOTBLOK SIZE IN DOUBLEWORDS (ALOTSZ) 3

Disp	Name	Len	Key	Description
0	ALOTPNT	4		ADDRESS OF NEXT ALOTBLOK
4	ALOTSTRT	4		BLOCK NUMBER OF FIRST BLOCK OF EXTENT
8	ALOTEND	4		BLOCK NUMBER OF LAST BLOCK OF EXTENT
C	ALOTPSUB	4		ADDRESS OF FIRST ALOSBLOK
10	ALOTNUMA	4		NUMBER OF AVAILABLE TDISK BLOCKS
14	ALOTDEVP	4		ADDRESS OF RDEVBLOK

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
ALOTDEVP 0014  ..   ALOTNUMA 0010  ..   ALOTPSUB 000C  ..   ALOTSZ   ....   3
ALOTEND  0008  ..   ALOTPNT  0000  ..   ALOTSTRT 0004  ..
```

ALTBLOK: ALTERNATE USERID INFORMATION BLOCK

ALTBLOK contains an alternate userid to be associated with a virtual machine. A virtual machine must issue a diagnose X'D4' to have an alternate userid. The VMALTID field of the VMBLOK points to the ALTBLOK. ALTBLOK is found in ALTBLOK copy.

SIZE

ALTBLOK SIZE IN DOUBLEWORDS (ALTSIZE) 1

Disp	Name	Len	Key	Description
0	ALTUSER	8		ALTERNATE USERID

CROSS REFERENCE

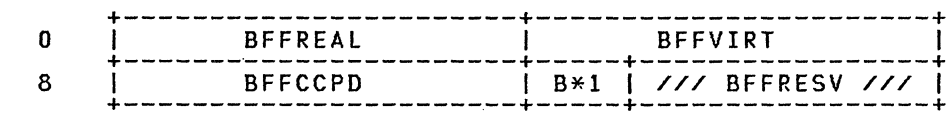
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

ALTSIZE .... 1 ALTUSER 0000 ..

BFFENTRY: CPTRAP BUFFER BLOCK

BFFENTRY contains pointers to the real and virtual buffer addresses for CP trap output. There are two pointers to BFFENTRY: the CURBUF field in DMKTRT and the STARTBUF field in DMKTRT. BFFENTRY is found in CPTRAP copy.



SIZE

LENGTH IN BYTES (BFFFSIZE) 2

Disp	Name	Len	Key	Description
0	BFFREAL	4		REAL ADDRESS OF BUFFER
4	BFFVIRT	4		VIRTUAL ADDRESS OF BUFFER
8	BFFCCPD	4		CCPD FOR THIS SPOOL RECORD
C	BFFSTAT	1	B*1	STATUS BYTE FOR EACH BUFFER ENTRY
	Values defined in BFFSTAT			
80	BFFPEND			PENDING I/O EXISTS FOR THE REAL BUFFER
40	BFFSTOP			STOP REQUESTED AFTER BUFFER IS WRITTEN
20	BFFCLOSE			CLOSE REQUESTED AFTER WRITTEN TO SPOOL
D	BFFRESV	3		RESERVED FOR IBM USE

CROSS REFERENCE

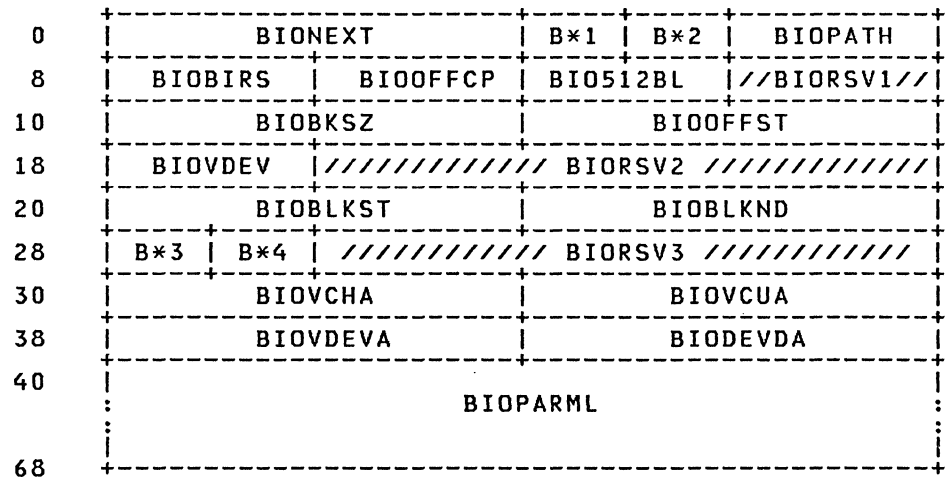
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

BFFCCPD	0008	..	BFFPEND	000C	80	BFFRESV	000D	..	BFFSTOP	000C	40
BFFCLOSE	000C	20	BFFREAL	0000	..	BFFSTAT	000C	..	BFFVIRT	0004	..
BFFFSIZE	....	2									

BIOBLOK: BLOCK I/O

This control block contains all the information relevant to a DASD I/O system service connection. This information includes the number of I/O requests outstanding, the I/O request information, and the physical device characteristics. There are two pointers to BIOBLOK: the BIRBIOBL field in BIRBLOK and the VMBIOCH field in VMBLOK. BIOBLOK is found in BIOBLOK copy.



SIZE

BIOBLOK SIZE IN DOUBLE WORDS (BIOSIZE) 0D

Disp	Name	Len	Key	Description
0	BIONEXT	4		ADDRESS OF NEXT BIOBLOK
4	BIORC	1	B*1	SEVER RETURN CODE
5	BIOSTAT1	1	B*2	STATUS FLAGS
	Values defined in BIOSTAT1			
80	BIORVD1			RESERVED FOR IBM USE
40	BIORVD2			RESERVED FOR IBM USE
20	BIORESET			VIRTUAL DEVICE HAS BEEN RESET
10	BIOSVRD			IUCV PATH HAS BEEN SEVERED
08	BIO3344K			DEVICE IS 3340; BLKSIZE IS 4K
04	BIORPS			DEVICE IS 3340 WITH RPS
02	BIOFBA			DEVICE IS FBA
6	BIOPATH	2		IUCV PATH FOR THIS DEVICE
8	BIOBIRS	2		NUMBER OF OUTSTANDING BIRBLOKS
A	BIOOFFCP	2		CP OFFSET FOR CMS DISK

C	BIO512BL	2		NUMBER OF 512 BYTES/USER BLOCK
E	BIORSV1	2		RESERVED FOR IBM USE
10	BIOPARMU	6		CONNECT USER PARAMETERS
10	BIOBKSZ	4		BLOCK SIZE OF USER'S DISK
14	BIOOFFST	4		THE USER'S REQUESTED OFFSET
18	BIOVDEV	2		VIRTUAL DEVICE ADDRESS
1A	BIORSV2	6		RESERVED FOR IBM USE
20	BIOPARMA	16		ACCEPT USER PARAMETERS
20	BIOBLKST	4		USER'S STARTING BLOCK
24	BIOBLKND	4		USER'S ENDING BLOCK
28	BIOFLAGS	2		STATUS FLAGS
28	BIOFLAG1	1	B*3	RESERVED FOR IBM USE
29	BIOFLAG2	1	B*4	SECOND STATUS BYTE

Values defined in BIOFLAG2

80	BIORVD3	RESERVED FOR IBM USE
40	BIORVD4	RESERVED FOR IBM USE
20	BIORVD5	RESERVED FOR IBM USE
10	BIORVD6	RESERVED FOR IBM USE
08	BIORVD7	RESERVED FOR IBM USE
04	BIORVD8	RESERVED FOR IBM USE
02	BIORVD9	RESERVED FOR IBM USE
01	BIOREAD	READ-ONLY BIT

2A	BIORSV3	6		RESERVED FOR IBM USE
30	BIOVBLKS	12		VIRTUAL DEVICE BLOCKS
30	BIOVCHA	4		VIRTUAL CHANNEL ADDRESS
34	BIOVCUA	4		VIRTUAL CONTROL UNIT ADDRESS
38	BIOVDEVA	4		VIRTUAL DEVICE BLOCK ADDRESS
3C	BIODEVDA	4		DEVICE-DEPENDENT INFORMATION
3C	BIODEVDS	2		DISPLACEMENT OF CKD DEVICE TABLE
3E	BIOSECDS	2		DISPLACEMENT OF CKD SECTOR TABLE
40	BIOPARML	40		IUCV PARAMETER LIST

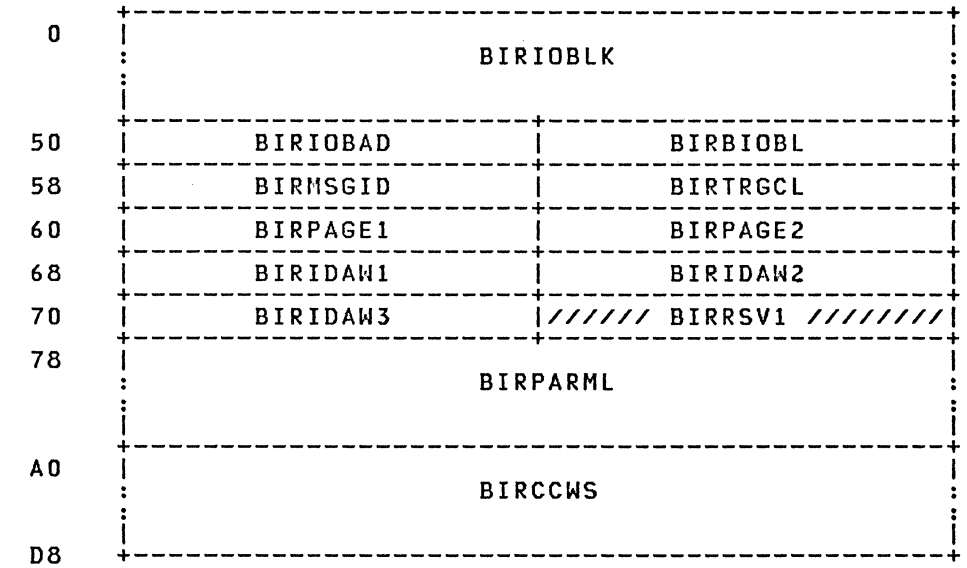
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

BIOBIRS	0008	..	BIOFLAG2	0029	..	BIOREAD	0029	1	BIOSVRD	0005	10
BIOBKSZ	0010	..	BIONEXT	0000	..	BIORESET	0005	20	BIOVBLKS	0030	..
BIOBLKND	0024	..	BIOOFFCP	000A	..	BIORPS	0005	4	BIOVCHA	0030	..
BIOBLKST	0020	..	BIOOFFST	0014	..	BIORSV1	000E	..	BIOVCUA	0034	..
BIODEVDA	003C	..	BIOPARMA	0020	..	BIORSV2	001A	..	BIOVDEV	0018	..
BIODEVDS	003C	..	BIOPARML	0040	..	BIORSV3	002A	..	BIOVDEVA	0038	..
BIOFBA	0005	2	BIOPARMU	0010	..	BIOSECDS	003E	..	BIO3344K	0005	8
BIOFLAGS	0028	..	BIOPATH	0006	..	BIOSIZE	0000	D	BIO512BL	000C	..
BIOFLAG1	0028	..	BIORC	0004	..	BIOSTAT1	0005	..			

BIRBLOK: BLOCK I/O REQUEST

BIRBLOK contains all the information relevant to a DASD Block I/O system service request. BIRBLOK is found in BIOBLOK copy.



SIZE

BIRBLOK SIZE IN DOUBLEWORDS (BIRSIZE) 11

Disp	Name	Len	Key	Description
0	BIRIOBLK	80		SPACE FOR IOBLOK
50	BIRIOBAD	4		ADDRESS OF IOBLOK
54	BIRBIOBL	4		ADDRESS OF BIOBLOK
58	BIRMSGID	4		IUCV MESSAGE ID
5C	BIRTRGCL	4		IUCV TARGET CLASS
	Values defined in BIRTRGCL			
	04 BIRCMSWR			CMS FORMATTED WRITE REQUEST
	04 BIRCMSRD			CMS FORMATTED READ REQUEST
60	BIRPAGES	8		REAL ADDRESS OF LOCKED PAGES
60	BIRPAGE1	4		REAL PAGE ADDRESS OF USER'S BUFFER
64	BIRPAGE2	4		REAL ADDRESS OF SECOND PAGE

68	BIRIDAL	12	IDAL FOR READ/WRITE CCW
68	BIRIDAW1	4	FIRST IDAW
6C	BIRIDAW2	4	SECOND IDAW
70	BIRIDAW3	4	THIRD IDAW
74	BIRRSV1	4	RESERVED FOR IBM USE
78	BIRPARML	40	IUCV REPLY PARAMETER LIST
A0	BIRCCWS	56	CCW STRINGS

DEFINE AN FBA CCW STRING

A0		8	DEFINE EXTENT
A0	BIREXTOP	1	OP CODE
A1	BIREXTLI	3	ADDRESS OF PARAMETER LIST
A4	BIREXTFL	1	FLAGS
A5	BIRR1	1	RESERVED FOR IBM USE
A6	BIREXTCT	2	NUMBER OF BYTES
A8		8	LOCATE
A8	BIRLOCOP	1	OP CODE
A9	BIRLOCLI	3	ADDRESS OF PARAMETER LIST
AC	BIRLOCFL	1	FLAGS
AD	BIRR2	1	RESERVED FOR IBM USE
AE	BIRLOCNT	2	NUMBER OF BYTES
B0		1	READ/WRITE
B0	BIRRWOP	1	OP CODE

Values defined in BIRRWOP

42	BIRRWRD	READ OPERATION
41	BIRRWWR	WRITE OPERATION

B1	BIRRWIDA	3	ADDRESS OF IDAL
B4	BIRRWFL	1	FLAGS
B5	BIRR3	1	RESERVED FOR IBM USE
B6	BIRRWCNT	2	READ/WRITE COUNT

B8		16	DEFINE EXTENT PARAMETER LIST
B8	BIREXIND	1	OPERATION
	Values defined in BIREXIND		
C0	BIREXWR		WRITE INDICATOR
40	BIREXRD		READ INDICATOR
B9	BIRR4	3	RESERVED FOR IBM USE
BC	BIREXOFF	4	MAJOR OFFSET ON REAL DEVICE
C0	BIREXSTR	4	RELATIVE STARTING BLOCK
C4	BIREXEND	4	RELATIVE ENDING BLOCK
C8		8	LOCATE PARAMETER LIST
C8	BIRLCIND	1	OPERATION
	Values defined in BIRLCIND		
06	BIRLCRD		READ INDICATOR
01	BIRLCWR		WRITE INDICATOR
CA	BIRLCBYT	2	NUMBER OF 512 BYTE BLOCKS
CC	BIRLCOFF	4	STARTING BLOCK TO READ/WRITE
D0		8	RESERVED FOR IBM USE

DEFINE A CKD CCW STRING

A0		8	SEEK
A0	BIRSKOP	1	OP CODE
A1	BIRSKDA	3	ADDRESS OF SEEK DATA
A4	BIRSKFL	1	FLAGS
A5	BIRR5	1	RESERVED FOR IBM USE
A6	BIRSKCNT	2	NUMBER OF BYTES
A8		8	SET SECTOR
A8	BIRSECOP	1	OP CODE
A9	BIRSECAR	3	ADDRESS OF SECTOR ARGUMENT
AC	BIRSECFL	1	FLAGS
AD	BIRR6	1	RESERVED FOR IBM USE

AE	BIRSECNT	2	NUMBER OF BYTES
B0		8	SEARCH
B0	BIRSROP	1	OP CODE
B1	BIRSRDA	3	ADDRESS OF SEARCH DATA
B4	BIRSRFL	1	FLAGS
B5	BIRR7	1	RESERVED FOR IBM USE
B6	BIRSRCNT	2	NUMBER OF BYTES
B8		8	TIC (TRANSFER IN CHANNEL)
B8	BIRTICOP	1	OP CODE
B9	BIRTICAD	3	TIC ADDRESS
BC	BIRR8	4	RESERVED FOR IBM USE
C0		8	READ/WRITE
C0	BIRWOP	1	OP CODE

Values defined in BIRWOP

6	BIRWRD	READ OPERATION
5	BIRWWR	WRITE OPERATION

C1	BIRWIDA	3	ADDRESS OF IDAL
C4	BIRWFL	1	FLAGS
C5	BIRR9	1	RESERVED FOR IBM USE
C6	BIRWCNT	2	READ/WRITE COUNT
C8		6	SEEK DATA
C8	BIRSKBIN	2	BIN NUMBER (BB)
CA	BIRSKCYL	2	CYLINDER NUMBER (CC)
CC	BIRSKTRK	2	TRACK OR HEAD NUMBER (HH)
CE	BIRSRDAT	5	SEARCH DATA
CE	BIRSRCYL	2	CYLINDER NUMBER (CC)
D0	BIRSRTRK	2	TRACK OR HEAD NUMBER (HH)
D2	BIRSRREC	1	RECORD NUMBER (R)

D3	BIRSECT	1	SECTOR NUMBER
D4	BIRRSV2	4	RESERVED FOR IBM USE

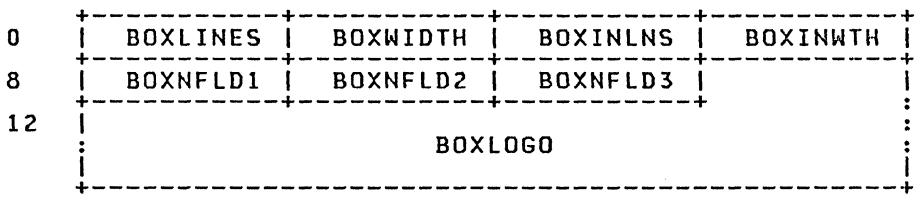
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

BIRBIOBL	0054	..	BIRLCIND	00C8	..	BIRR1	00A5	..	BIRSKFL	00A4	..
BIRCCWS	00A0	..	BIRLCOFF	00CC	..	BIRR2	00AD	..	BIRSKOP	00A0	..
BIRCMSRD	005C	..	BIRLCRD	00C8	06	BIRR3	00B5	..	BIRSKTRK	00CC	..
BIRCMSWR	005C	..	BIRLCWR	00C8	01	BIRR4	00B9	..	BIRSRCNT	00B6	..
BIREXEND	00C4	..	BIRLOCFL	00AC	..	BIRR5	00A5	..	BIRSRCYL	00CE	..
BIREXIND	00B8	..	BIRLOCLI	00A9	..	BIRR6	00AD	..	BIRSRDA	00B1	..
BIREXOFF	00BC	..	BIRLOCNT	00AE	..	BIRR7	00B5	..	BIRSRDAT	00CE	..
BIREXRD	00B8	40	BIRLOCOP	00A8	..	BIRR8	00BC	..	BIRSRFL	00B4	..
BIREXSTR	00C0	..	BIRMSGID	0058	..	BIRR9	00C5	..	BIRSROP	00B0	..
BIREXTCT	00A6	..	BIRPAGES	0060	..	BIRSECAR	00A9	..	BIRSRREC	00D2	..
BIREXTFL	00A4	..	BIRPAGE1	0060	..	BIRSECFL	00AC	..	BIRSRTRK	00D0	..
BIREXTLI	00A1	..	BIRPAGE2	0064	..	BIRSECNT	00AE	..	BIRTICAD	00B9	..
BIREXTOP	00A0	..	BIRPARML	0078	..	BIRSECOP	00A8	..	BIRTICOP	00B8	..
BIREXWR	0068	C0	BIRRSV1	0074	..	BIRSECT	0083	..	BIRTRGCL	005C	..
BIRIDAL	0068	..	BIRRSV2	00D4	..	BIRSIZE	0000	11	BIRWCNT	00C6	..
BIRIDAW1	0068	..	BIRRWCNT	00B6	..	BIRSKBIN	00C8	..	BIRWFL	00C4	..
BIRIDAW2	006C	..	BIRRWFL	00B4	..	BIRSKCNT	00A6	..	BIRWIDA	00C1	..
BIRIDAW3	0070	..	BIRRWIDA	00B1	..	BIRSKCYL	00CA	..	BIRWOP	00C0	..
BIRIOBAD	0050	..	BIRRWOP	00B0	..	BIRSKDA	00A1	..	BIRWRD	00C0	06
BIRIOBLK	0000	..	BIRRWRD	00B0	42	BIRSKDAT	00C8	..	BIRWWR	00C0	05
BIRLCBYT	00CA	..	BIRRWWR	00B0	41						

BOXBLOK: VM LOGO FORMAT

BOXBLOK contains the information about the number of rows and columns and the data for the VM logo displayed on terminals. BOXBLOK is found in BOXBLOK copy.



Disp	Name	Len	Key	Description
0	BOXLINES	2		NUMBER OF ROWS IN ENTIRE LOGO
2	BOXWIDTH	2		NUMBER OF COLUMNS IN RECTANGULAR LOGO
4	BOXINLNS	2		NUMBER OF ROWS IN LOGO INPUT AREA
6	BOXINWTH	2		NUMBER OF COLUMNS IN LOGO INPUT AREA
8	BOXNFLD1	2		OFFSET OF ACTUAL INPUT FIELD 1
A	BOXNFLD2	2		OFFSET OF ACTUAL INPUT FIELD 2
C	BOXNFLD3	2		OFFSET OF ACTUAL INPUT FIELD 3
E	BOXLOGO	0		LOGO TEXT

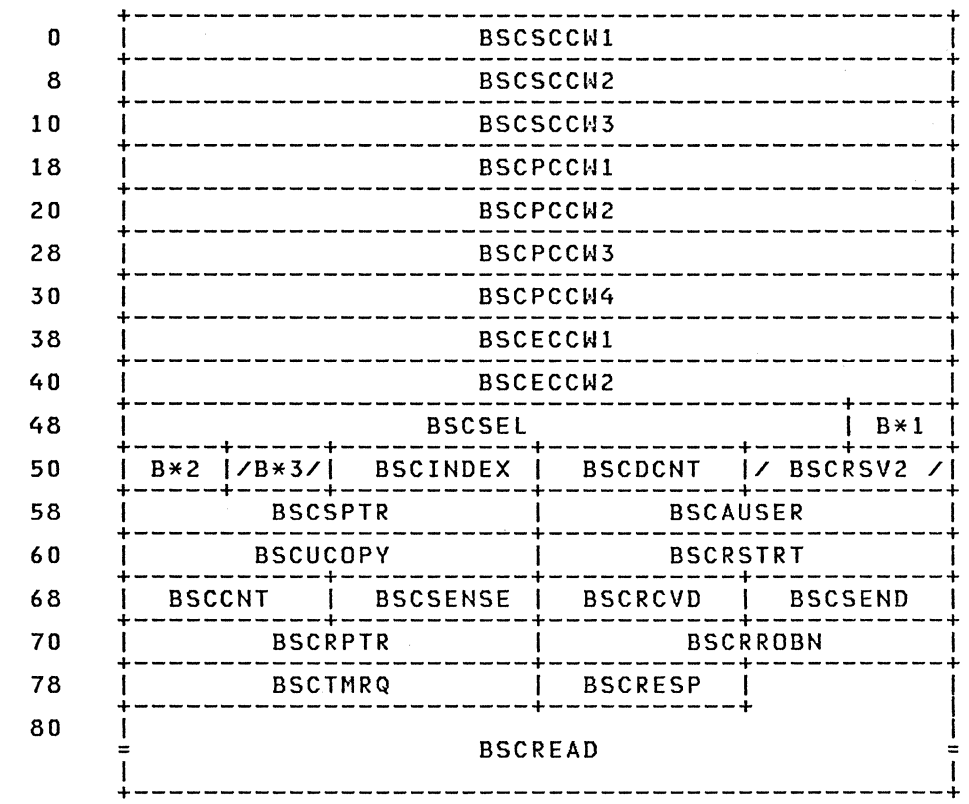
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
BOXINLNS 0004  ..   BOXLINES 0000  ..   BOXNFLD1 0008  ..   BOXNFLD3 000C  ..
BOXINWTH 0006  ..   BOXLOGO  000E  ..   BOXNFLD2 000A  ..   BOXWIDTH 0002  ..
```

BSCBLOK: BINARY SYNCHRONOUS COMMUNICATION CONTROL BLOCK

BSCBLOK provides status, control information buffers (necessary for polling and addressing), and channel programs for 3270 remote equipment. The RDEVBSC field in the RDEVBLOK points to the BSCBLOK. BSCBLOK is found in BSCBLOKS copy.



SIZE

BSC HEADER SIZE IN BYTES (BSCSIZE2) 7E
BSCBLOK SIZE IN DOUBLEWORDS (BSCSIZE) 31
READ BUFFER SIZE IN BYTES (BSCSIZE1) 107

Disp	Name	Len	Key	Description
0	BSCSCCW1	8		CCW FOR WRITE RESET
8	BSCSCCW2	8		CCW FOR ADDRESSING OR SELECTION
10	BSCSCCW3	8		CCW FOR READ RESPONSE TO SELECTION
18	BSCPCCW1	8		CCW FOR WRITE RESET

20	BSCPCCW2	8		CCW FOR GENERAL/SPECIFIC POLLING
28	BSCPCCW3	8		CCW FOR NO-OP COMMAND CCW
30	BSCPCCW4	8		CCW FOR READ TEXT
38	BSCECCW1	8		CCW FOR WRITE ERROR RESPONSE
40	BSCECCW2	8		CCW TO TRANSFER CONTROL TO READ CCW
48	BSCSEL	7		ADDRESSING/POLLING ENTRY
4F	BSCFLAG	1	B*1	BSCBLOK FLAGS

Values defined in BSCFLAG

80	BSCRVI	SENDING REVERSE INTERRUPT RESPONSE
40	BSCENQ	ENQUEUE IN DATA FROM STATION
20	BSCCOPY	COPY FUNCTION IS ACTIVE
10	BSCOPIED	INITIATE COPY FUNCTION
08	BSCREGEN	REGENERATION ERROR
04	BSCTSTRQ	IGNORE INPUT PROCESSING
02	BSCLOG	BYPASS FORCE MESSAGE AT LOGOFF
01	BSCSCAN	SECOND SCAN FOR WRITE REQUEST

50	BSCFLAG1	1	B*2	BSCBLOK FLAGS

Values defined in BSCFLAG1

80	BSCETB	STATION TRANSMITTED BLOCK RECORD
40	BSCIGN	IGNORE BLOCK RECORD
20	BSCPA1	INDICATOR TO CALL DMKCFMBK
10	BSCINBID	INITIAL BID SEQUENCE REQUIRED
08	BSCFORCE	USER FORCE IN PROGRESS
04	BSCHALT	HALT I/O HAS BEEN ISSUED FOR THIS DEVICE
02	BSCSHUT	NETWORK SHUTDOWN IN PROGRESS
01	BSCUP	REMOTE STATION IS SELECTED

51	BSCRSV1		B*3	RESERVED FOR IBM USE
52	BSCINDEX	2		INDEX VALUE FOR AVAILABLE SPACE IN BUFFER
54	BSCDCNT	2		COUNT OF 3270 DEVICE ERRORS
56	BSCRSV2	2		RESERVED FOR IBM USE
58	BSCSPTR	4		WRITE CCW STRING ADDR/ADDR OF BUFFER
5C	BSCAUSER	4		ADDRESS OF ACTIVE RESOURCE
60	BSCUCOPY	4		ADDRESS OF COPY REQUESTOR'S NICBLOK
64	BSCRSTRT	4		ADDRESS OF RESTART CCW STRING
68	BSCCNT	2		RETRY COUNT
6A	BSCSENSE	2		SENSE BYTES FROM REMOTE STATION
6C	BSCRCVD	2		EXPECTED RECEIVED ACK (ACK-0/ACK-1)
6E	BSCSEND	2		SENDING ACK (ACK-0/ACK-1)
70	BSCRPTR	4		ADDRESS OF THE READ BUFFER
74	BSCRROBN	4		ADDRESS OF ACTIVE USER IN QUEUE

78	BSCTMRQ	4	ADDRESS OF TRQBLOK FOR POLL DELAY
7C	BSCRESP	2	RESPONSE BUFFER FOR SELECTION
7E	BSCREAD	264	READ BUFFER FOR POLLING

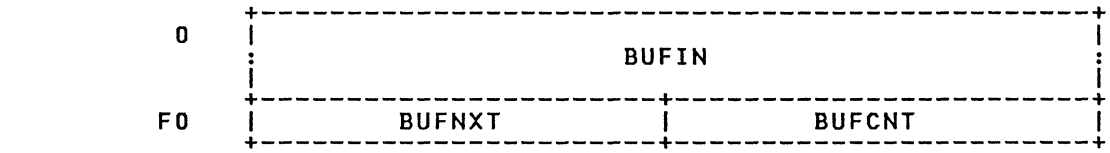
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

BSCAUSER	005C	..	BSCIGN	0050	40	BSCREGEN	004F	08	BSCSEL	0048	..
BSCCNT	0068	..	BSCINBID	0050	10	BSCRESP	007C	..	BSCSEND	006E	..
BSCCOPY	004F	20	BSCINDEX	0052	..	BSCRPTR	0070	..	BSCSENSE	006A	..
BSCDCNT	0054	..	BSCLOG	004F	02	BSCRROBN	0074	..	BSCSHUT	0050	02
BSCECCW1	0038	..	BSCOPIED	004F	10	BSCRSTRT	0064	..	BSCSIZE	....	31
BSCECCW2	0040	..	BSCPA1	0050	20	BSCRSV1	0051	..	BSCSIZE1	....	107
BSCENQ	004F	40	BSCPCCW1	0018	..	BSCRSV2	0056	..	BSCSIZE2	....	7E
BSCETB	0050	80	BSCPCCW2	0020	..	BSCRVI	004F	80	BSCSPTR	0058	..
BSCFLAG	004F	..	BSCPCCW3	0028	..	BSCSCAN	004F	01	BSCTMRQ	0078	..
BSCFLAG1	0050	..	BSCPCCW4	0030	..	BSCSCCW1	0000	..	BSCTSTRQ	004F	04
BSCFORCE	0050	08	BSCRCVD	006C	..	BSCSCCW2	0008	..	BSCUCOPY	0060	..
BSCHALT	0050	04	BSCREAD	007E	..	BSCSCCW3	0010	..	BSCUP	0050	01

BUFFER: CONSOLE INPUT FOR CP

BUFFER is a buffer area that contains console input to be used by CP. The VCONRBUF field in the VCONCTL block points to BUFFER. BUFFER is found in CONBUF copy.



SIZE

SIZE OF NORMAL READ BUFFER (BUFNORM) F6
INPUT BUFFER SIZE IN BYTES (BUFINLTH) F0
TWICE INPUT BUFFER SIZE (BUFAPL) 1F0
CONBUF SIZE IN DOUBLEWORDS (BUFSIZE) 1F

Disp	Name	Len	Key	Description
0	BUFIN	240		INPUT LINE
F0	BUFNXT	4		POINTER TO NEXT BYTE IN BUFFER
F4	BUFCNT	4		COUNT OF CHARACTERS IN INPUT LINE

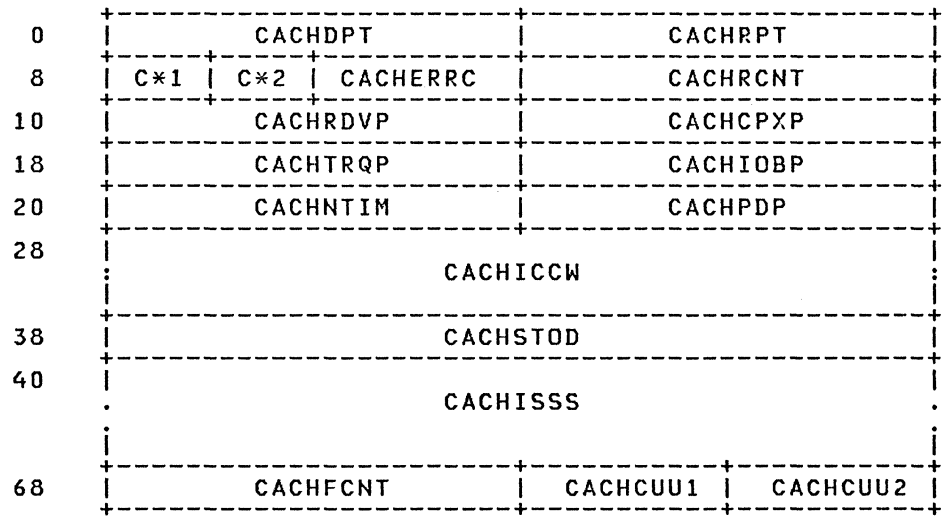
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
BUFAPL   .... 1F0   BUFIN    0000  ..   BUFNORM  ....  F6   BUFSIZE  ....  1
BUFCNT   00F4 ..    BUFINLTH .... F0   BUFNXT   00F0  ..
```

CACHBLOK: 3880 STORAGE CONTROL MONITOR CONTROL BLOCK

CACHBLOK contains data area pointers, pointers to related CPEXBLOKs, TRQBLOKs, and IOBLOKs stacked as part of the monitoring task. CACHBLOK also contains time stamps, subsystem status, CCWs used to obtain subsystem status, an I/O error counter, and flags. The CACHBLOK is pointed to by the PTRCACH pointer in the system PTRLIST. CACHBLOK is found in CACHBLOK copy.



SIZE

CACHBLOK SIZE IN DOUBLEWORDS (CACHSIZE) E

Disp	Name	Len	Key	Description
0	CACHDPT	4		LATEST COUNTS DATA POINTER
4	CACHRPT	4		READ AREA POINTER
8	CACHSTA1	1	C*1	STATUS FLAGS:

Values defined in CACHSTA1

80	CACHKX	TERMINATE
40	CACHRSD2	READ SSC DATA FOR STORAGE DIRECTOR 2
20	CACHWSD1	SSC DATA FOR STORAGE DIRECTOR 1 WRITTEN
10	CACHWSD2	SSC DATA FOR STORAGE DIRECTOR 2 WRITTEN
08	CACHWR2	FIRST SSC WRITTEN TO MONITOR
04	CACHWR1	STATUS RECORD WRITTEN TO MONITOR
02	CACHIN2	FIRST SSC READ COMPLETE
01	CACHIN1	FIRST READ, SSS, HAS COMPLETED

9	CACHRSV4	1	C*2	RESERVED FOR IBM USE
A	CACHERRC	2		CONSECUTIVE I/O ERROR COUNT

```
  C    CACHRCNT    4       SUCCESSFUL READS
  0    CACHRDVP    4       RDEVBLOK OF CACHED CONTROLLER
 14    CACHCPXP    4       POINTER TO CPEXBLOK
 18    CACHTRQP    4       POINTER TO TRQBLOK
 1C    CACHIOBP    4       POINTER TO IOBLOK
 20    CACHNTIM    4       NEXT WAIT INTERVAL IN SECONDS
 24    CACHPDP     4       PREVIOUS DATA POINTER
 28    CACHICCW   16       CHANNEL PROGRAM; SEE SSSTATM
 38    CACHSTOD    8       TOD OF STATUS DATA
 40    CACHISSS   40       SUBSYSTEM STATUS HERE
 68    CACHFCNT    4       ADDRESS OF FIRST COUNT AREA
 6C    CACHCUU1    2       CUU ADDRESS OF STORAGE DIRECTOR 1
 6E    CACHCUU2    2       CUU ADDRESS OF STORAGE DIRECTOR 2

CACHNTMI EQU   25            MINIMUM INTERVAL = 25 SECONDS
CACHNTDF EQU   1*60+5         DEFAULT INTERVAL = 1 MINUTE
```

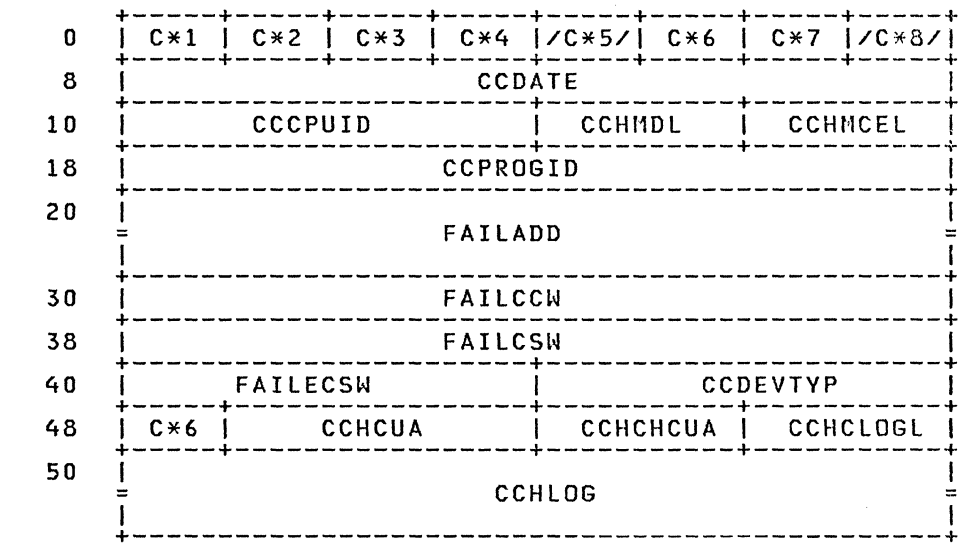
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
CACHCPXP 0014 ..    CACHIN2  0008 02    CACHPDP  0024 ..    CACHSTA1 0008 ..
CACHCUU1 006C ..    CACHIOBP 001C ..    CACHRCNT 000C ..    CACHSTOD 0038 ..
CACHCUU2 006E ..    CACHISSS 0040 ..    CACHRDVP 0010 ..    CACHTRQP 0018 ..
CACHDPT  0000 ..    CACHKX   0008 80    CACHRPT  0004 ..    CACHWR1  0008 04
CACHERRC 000A ..    CACHNTDF 0020 41    CACHRSD2 0008 40    CACHWR2  0008 08
CACHFCNT 0068 ..    CACHNTIM 0020 ..    CACHRSV4 0009 ..    CACHWSD1 0008 20
CACHICCW 0028 ..    CACHNTMI 0020 19    CACHSIZE 0000 13    CACHWSD2 0008 10
CACHIN1  0008 01
```

CCHREC: CHANNEL CHECK HANDLER RECORD

CCHREC provides statistical data for error recovery and/or error recording relating to previously performed channel operations that did not complete successfully. CCHREC is found in CCHREC copy.



SIZE

INTEGRATED CHANNEL SIZE IN BYTES (CCHSIZE1) 54
CCHREC SIZE IN DOUBLEWORDS (CCHSIZE) A

Disp	Name	Len	Key	Description
0	CCRECTYP	1	C*1	RECORD TYPE
1	CCOPSYS	1	C*2	OPERATING SYSTEM
2	CCSW1	1	C*3	SWITCH ONE
	Values defined in CCSW1			
	04 CCS1PASS			CHANNEL CHECK PASSED TO VM
3	CCSW2	1	C*4	SWITCH TWO
4	CCHRSV1	1	C*5	RESERVED FOR IBM USE
5	CCSW4	1	C*6	SWITCH FOUR
	Values defined in CCSW4			
	03 CCS4SOFT			ERROR RECOVERY SUCCESSFUL, NO RESOURCES WERE LOST
	02 CCS4DGRD			ERROR RECOVERY SUCCESSFUL, BUT SOME RESOURCES MAY HAVE BEEN LOST

```
|    01 CCS4HARD                ERROR RECOVERY UNSUCCESSFUL AND SOME
|                               RESOURCES WERE LOST

     6   CCRECNT     1 C*7     RECORD COUNT

|    7   CCHRSV2     1 C*8     RESERVED FOR IBM USE

     8   CCDATE      8         DATE AND TIME

    10   CCCPUID     4         PROCESSOR ID

    14   CCHMDL      2         PROCESSOR MODEL NUMBER

    16   CCHMCEL     2         LENGTH OF MACHINE-DEPENDENT LOGOUT AREA

    18   CCPROGID    8         USERID

    20   FAILADD    16         ACTIVE I/O UNITS

    30   FAILCCW     8         FAILING CCW

    38   FAILCSW     8         FAILING CSW

    40   FAILECSW    4         FAILING ECSW

    40   IGPRGFLG    1         PROGRAM FLAG BITS

      Values defined in IGPRGFLG

      80 CCHSIOB                SIO BIT
      40 CCHINTB                INTERRUPT BIT
      20 CCHTIO                 TEST I/O BIT
      10 CCHHIO                 HALT I/O BIT
      04 CCHSNSB                SENSE DATA STORED BIT
      02 CCHCNTB                COUNT VALID BIT
      01 CCHNRYB                NO RETRY BIT

    41   IGBLAME     1         PROBABLE SOURCE OF ERROR

      Values defined in IGBLAME

      80 CCHCPU                 PROCESSOR IS SOURCE OF ERROR
      40 CCHCHNL                CHANNEL IS SOURCE OF ERROR
      20 CCHSCUB                STORAGE CONTROL UNIT IS SOURCE OF ERROR
      10 CCHSTG                 STORAGE IS SOURCE OF ERROR
      08 CCHINTFC               CONTROL UNIT IS SOURCE OF ERROR

    42   IGVALIDB    1         VALIDITY INDICATOR BITS

      Values defined in IGVALIDB

      80 CCHINTFV               INTERFACE ADDRESS VALID
      10 CCHRCV                 SEQUENCE CODE VALID
      08 CCHUSV                 UNIT STATUS VALID
      04 CCHCMDV                COMMAND ADDRESS VALID
      02 CCHCAV                 CHANNEL ADDRESS VALID
      01 CCHDAV                 DEVICE ADDRESS VALID

    43   IGTERMSQ    1         TERMINATION/RETRY CODE BITS

      Values defined in IGTERMSQ

      00 COMPID                 INTERFACE DISCONNECT
      00 RTCODE0                RETRY CODE
      C0 COMPSYS                SYSTEM RESET
      80 COMPSEL                SELECTIVE RESET
```

```
   40 COMPFES              STOP, STACK, OR NORMAL TERMINATION
   10 CCHIOH               IO INTERFACE HANGUP OCCURRED
   08 CCHDI                I/O ERROR ALERT
   07 RTCODE7              RETRY CODE
   06 RTCODE6              RETRY CODE
   05 RTCODE5              RETRY CODE
   04 RTCODE4              RETRY CODE
   03 RTCODE3              RETRY CODE
   02 RTCODE2              RETRY CODE
   01 RTCODE1              RETRY CODE

 44   CCDEVTYP    4        CP DEVICE TYPE

 48   CCHANID     1 C*6    CHANNEL IDENTIFICATION

 49   CCHCUA      3        ACTUAL FAILING DEVICE ADDRESS

 4C   CCHCHCUA    2        ADDRESS FROM MACHINE LOCATION X'BA'

 4E   CCHCLOGL    2        LENGTH OF CHANNEL LOGOUT

 50   CCHLOG81   88        3081 CHANNEL LOGOUT AREA

 50   CCHLOG80  112        2880 CHANNEL LOGOUT AREA

 50   CCHLOG70   24        2870 CHANNEL LOGOUT AREA

 50   CCHLOG60   24        2860 CHANNEL LOGOUT AREA

 50   CCHADDR     4        UNIT ADDRESS STORED BY INTEGRATED CHANNEL

 54   CCHLOG45   96        145 INTEGRATED CHANNEL LOGOUT AREA

 54   CCHLOG35   24        135 INTEGRATED CHANNEL LOGOUT AREA
```

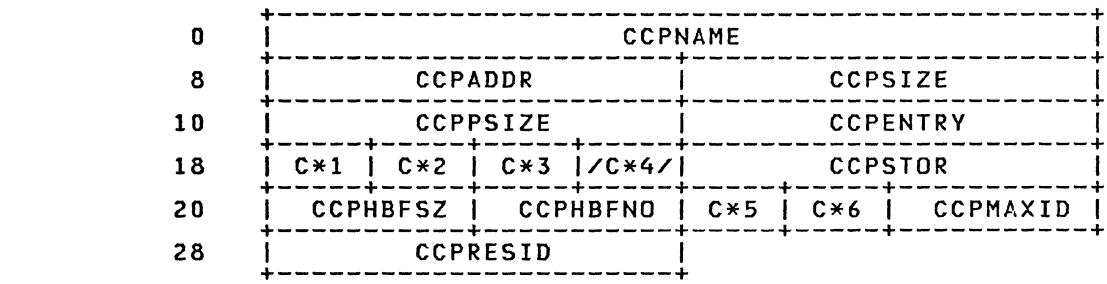
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

```
CCCPUID  0010  ..   CCHLOG35 0054  ..   CCOPSYS  0001  ..   HIOCCH   ....  10
CCDATE   0008  ..   CCHLOG45 0054  ..   CCPROGID 0018  ..   IGBLAME  0041  ..
CCDEVTYP 0044  ..   CCHLOG60 0050  ..   CCRECNT  0006  ..   IGPRGFLG 0040  ..
CCHADDR  0050  ..   CCHLOG70 0050  ..   CCRECTYP 0000  ..   IGTERMSQ 0043  ..
CCHANID  0048  ..   CCHLOG80 0050  ..   CCSW1    0002  ..   IGVALIDB 0042  ..
CCHCAV   0042  02   CCHLOG81 0050  ..   CCSW2    0003  ..   INTERCCH  ....  40
CCHCHCUA 004C  ..   CCHMCEL  0016  ..   CCSW4    0005  ..   IOBCCH    ....   2
CCHCHNL  0041  40   CCHMDL   0014  ..   CCS1PASS 0002  04   RTCODE0  0043  00
CCHCLOGL 004E  ..   CCHNRYB  0040  01   CCS4DGRD 0005  02   RTCODE1  0043  01
CCHCNDV  0042  04   CCHRCV   0042  10   CCS4HARD 0005  01   RTCODE2  0043  02
CCHCNTB  0040  02 | CCHRSV1  0004  ..   CCS4SOFT 0005  03   RTCODE3  0043  03
CCHCPU   0041  80 | CCHRSV2  0007  ..   COMPFES  0043  40   RTCODE4  0043  04
CCHCUA   0049  ..   CCHSCUB  0041  20   COMPID   0043  00   RTCODE5  0043  05
CCHDAV   0042  01   CCHSIOB  0040  80   COMPSEL  0043  80   RTCODE6  0043  06
CCHDI    0043  08   CCHSIZE  ....   A   COMPSYS  0043  C0   RTCODE7  0043  07
CCHHIO   0040  10   CCHSIZE1 ....  54   DEVCCH   ....   4   SIOCCH   ....  80
CCHINTB  0040  40   CCHSNSB  0040  04   FAILADD  0020  ..   TERMCHAN ....   1
CCHINTFC 0041  08   CCHSTG   0041  10   FAILCCW  0030  ..   TERMSYS  ....   8
CCHINTFV 0042  80   CCHTIO   0040  20   FAILCSW  0038  ..   TIOCCH   ....  20
CCHIOH   0043  10   CCHUSV   0042  08   FAILECSW 0040  ..
```

CCPARM: COMMUNICATIONS CONTROLLER PARAMETER LIST

CCPARM provides control information used for loading and controlling the 370X Communication Controller Network Control Program, Emulation Program, and Partitioned Emulation Program and their attached resources. CCPARM is found in CCPARM copy.



SIZE

SIZE OF CCPARM IN BYTES (CCPARMSZ) 44

Disp	Name	Len	Key	Description
0	CCPNAME	8		NCPNAME SPECIFIED IN NAMECP MACRO
8	CCPADDR	4		ORIGIN OF CONTROL PROGRAM IMAGE
C	CCPSIZE	4		CONTROL PROGRAM SIZE IN BYTES
10	CCPPSIZE	4		PARAMETER LIST SIZE IN BYTES
14	CCPENTRY	4		CONTROL PROGRAM ENTRY POINT ADDR
18	CCPTYPE	1	C*1	CONTROL PROGRAM TYPE FLAG

Values defined in CCPTYPE

0A	CCPTEP4	270X EMULATION PROGRAM FOR CA4
03	CCPTPEP	PARTITIONED EMULATION PROGRAM
02	CCPTEP	270X EMULATION PROGRAM
01	CCPTNCP	NETWORK CONTROL PROGRAM

19	CCPCAONE	1	C*2	FIRST CHANNEL ADAPTER TYPE FLAG

Values defined in CCPCAONE

02	CCPTYPE2	CHANNEL ADAPTER TYPE TWO
01	CCPTYPE1	CHANNEL ADAPTER TYPE ONE

```
 1A    CCPCATWO    1 C*3  SECOND CHANNEL ADAPTER TYPE FLAG

   Values defined in CCPATWO

   02 CCPTYPE2           CHANNEL ADAPTER TYPE TWO
   01 CCPTYPE1           CHANNEL ADAPTER TYPE ONE

 1B    CCPRSV1     1 C*4  RESERVED FOR IBM USE

 1C    CCPSTOR     4      370X STORAGE SIZE SPECIFIED (BYTES)

 20    CCPHBFSZ    2      BUFFER SIZE FROM 'HOST' MACRO

 22    CCPHBFNO    2      NUMBER OF BUFFERS IN READ LIST

 24    CCPPAD0     1 C*5  FIRST BUFFER PAD COUNT (BYTES)

 25    CCPPAD1     1 C*6  SUBSEQUENT BUFFER PAD COUNT

 26    CCPMAXID    2      HIGHEST RESOURCE I.D. DEFINED

 28    CCPRESID    4      RESOURCE I.D. DESCRIPTION

 28    CCPRSTYP    1      RESOURCE TYPE FLAG

 29    CCPRSTAT    1      RESOURCE INITIAL STATUS FLAGS

 2A    CCPRSTEP    2      SUBCHANNEL ADDRESS WHEN IN EP-MODE

HOST VALUES REQUIRED BY VM/370 SUPPORT FOR 3704/3705

   22 CCPVPAD0           34-BYTE PAD IN FIRST BTU BUFFER
   22 CCPVPAD1           34-BYTE PAD IN SUBSEQUENT BUFFERS
```

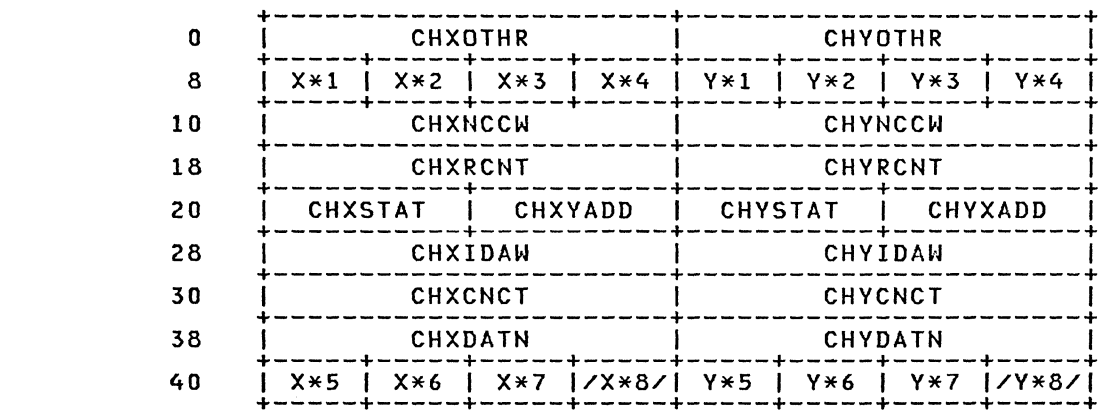
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
CCPADDR  0008 ..    CCPMAXID 0026 ..    CCPRSTEP 002A ..    CCPTNCP  0018 01
CCPARMSZ 0000 44    CCPNAME  0000 ..    CCPRSTYP 0028 ..    CCPTPEP  0018 03
CCPCAONE 0019 ..    CCPPAD0  0024 ..    CCPRSV1  001B ..    CCPTYPE  0018 ..
CCPCATWO 001A ..    CCPPAD1  0025 ..    CCPSIZE  000C ..    CCPTYPE1 0019 01
CCPENTRY 0014 ..    CCPPSIZE 0010 ..    CCPSTOR  001C ..    CCPTYPE2 0019 02
CCPHBFNO 0022 ..    CCPRESID 0028 ..    CCPTEP   0018 02    CCPVPAD0 0019 22
CCPHBFSZ 0020 ..    CCPRSTAT 0029 ..    CCPTEP4  0018 0A    CCPVPAD1 0019 22
```

CHXBLOK AND CHYBLOK: VIRTUAL CHANNEL-TO-CHANNEL ADAPTER CONTROL BLOCKS

CHXBLOK and CHYBLOK provide the necessary control for a virtual channel-to-channel adapter (CTCA). The VDEVREAL field in the VDEVBLOK points to CHXBLOK and CHYBLOK for virtual CTCAs. CHXBLOK and CHYBLOK are found in VCTCA copy.



Note: As indicated in the illustrated block, the CHXBLOK and CHYBLOK are interleaved with a 4-byte displacement. The X-side VDEVBLOK points to the +0 slot, the Y-side VDEVBLOK points to the +4 slot; however, once the virtual connection is made, either side can be the X-side or the Y-side since this interleaved arrangement makes the control block references completely symmetrical. The dual DSECT definition allows the active adapter (defined to be the X-side, arbitrarily) to reference both adapter sides concurrently without knowing whether it is at +0 or +4.

The displacements for both the X-side and the Y-side fields will be displayed based on +0. For example, CHYOTHR would have a displacement of 0 while in the illustration it is shown at +4. Values defined for an X-side field are also valid for the corresponding Y-side field, but are not listed twice.

SIZE

CHXBLOK SIZE IN DOUBLEWORDS (CHBSIZE) 9
CHYBLOK SIZE IN DOUBLEWORDS (CHBSIZE) 9

Disp	Name	Len	Key	Description
0	CHXOTHR	4		VMBLOK ADDRESS OF Y-SIDE ADAPTER USER
8	CHXFLAG	1	X*1	INTERNAL PROCESSING FLAGS

Values defined in CHXFLAG

80	CHBMNOP	MODIFIED 'NOP' ISSUED (ALSO IN CMDT)
40	CHBM370	CTCA OPERATING IN S/370 MODE
20	CHBATTN	ATTENTION PENDING FROM Y-SIDE
10	CHBREST	CTCA HAS BEEN RESET - X-SIDE AND Y-SIDE
08	CHBEOFL	FORCE END-OF-FILE TO NEXT READ

```
04 CHBHIO              HALT I/O OR HALT DEVICE ISSUED
02 CHBWAIT             CPEXBLOK AVAILABLE FOR CHANNEL RECONNECT
01 CHBCENT             CHANNEL END HAS BEEN PRESENTED ON SIO

 9   CHXCMDB    1 X*2  ACTIVE CCW COMMAND BYTE BUFFER

 A   CHXCMDT    1 X*3  ACTIVE CCW COMMAND TYPE

  Values defined in CHXCMDT

80 CHBPREP             PREPARE COMMAND FOR THE 3088
40 CHBCNTL             CONTROL, OTHER THAN 'NOP'
20 CHBRDBK             READ BACKWARD
10 CHBWEOF             WRITE END OF FILE
08 CHBSCMD             SENSE COMMAND BYTE
04 CHBSADS             SENSE ADAPTER STATUS
02 CHBREAD             READ
01 CHBWRIT             WRITE

 B   CHXPKEY    1 X*4  VIRTUAL CAW PROTECTION KEY

10   CHXNCCW    4      NEXT CCW REAL FETCH ADDRESS

18   CHXRCNT    4      REMAINING CCW DATA COUNT

20   CHXSTAT    2      DEVICE STATUS ACCUMULATION FIELD

22   CHXYADD    2      VIRTUAL ADDRESS OF Y-SIDE ADAPTER

28   CHXIDAW    4      ACTIVE INDIRECT-DATA-LIST WORD

30   CHXCNCT    4      CPEXBLOK FOR CHANNEL RE-CONNECT

38   CHXDATN    4      IOBLOK ADDRESS FOR DEFERRED ATTENTION

40   CHXPLG     1 X*5  BIT TO INDICATE X-SIDE PLUG

41   CHXCHEK    1 X*6  BYTE TO INDICATE X-SIDE PLUG

42   CHXFLG2    1 X*7  INTERNAL PROCESSING FLAGS

43   CHXRSV1    1 X*8  RESERVED FOR IBM USE

 0   CHYOTHR    4      VMBLOK ADDRESS OF X-SIDE ADAPTER USER

 8   CHYFLAG    1 Y*1  INTERNAL PROCESSING FLAGS

  Values defined in CHYFLAG

80 CHBMNOP             MODIFIED 'NOP' ISSUED (ALSO IN CMDT)
40 CHBM370             CTCA OPERATING IN S/370 MODE
20 CHBATTN             ATTENTION PENDING FROM X-SIDE
10 CHBREST             CTCA HAS BEEN RESET - X-SIDE AND Y-SIDE
08 CHBEOFL             FORCE END-OF-FILE TO NEXT READ
04 CHBHIO              HALT I/O OR HALT DEVICE ISSUED
02 CHBWAIT             CPEXBLOK AVAILABLE FOR CHANNEL RECONNECT
01 CHBCENT             CHANNEL END HAS BEEN PRESENTED ON SIO

 9   CHYCMDB    1 Y*2  ACTIVE CCW COMMAND BYTE BUFFER

 A   CHYCMDT    1 Y*3  ACTIVE CCW COMMAND TYPE

  Values defined in CHYCMDT
```

```
  80 CHBPREP              PREPARE COMMAND FOR THE 3088
  40 CHBCNTL              CONTROL, OTHER THAN 'NOP'
  20 CHBRDBK              READ BACKWARD
  10 CHBWEOF              WRITE END OF FILE
  08 CHBSCMD              SENSE COMMAND BYTE
  04 CHBSADS              SENSE ADAPTER STATUS
  02 CHBREAD              READ
  01 CHBWRIT              WRITE

   B    CHYPKEY    1 Y*4  VIRTUAL CAW PROTECTION KEY

  10    CHYNCCW    4      NEXT CCW REAL FETCH ADDRESS

  18    CHYRCNT    4      REMAINING CCW DATA COUNT

  20    CHYSTAT    2      DEVICE STATUS ACCUMULATION FIELD

  22    CHYXADD    2      VIRTUAL ADDRESS OF X-SIDE ADAPTER

  28    CHYIDAW    4      ACTIVE INDIRECT-DATA-LIST WORD

  30    CHYCNCT    4      CPEXBLOK FOR CHANNEL RE-CONNECT

  38    CHYDATN    4      IOBLOK ADDRESS FOR DEFERRED ATTENTION

  40    CHYPLG     1 Y*5  BIT TO INDICATE X-SIDE PLUG

  41    CHYCHEK    1 Y*6  BYTE TO INDICATE X-SIDE PLUG

  42    CHYFLG2    1 Y*7  INTERNAL PROCESSING FLAGS

  43    CHYRSV1    1 Y*8  RESERVED FOR IBM USE
```

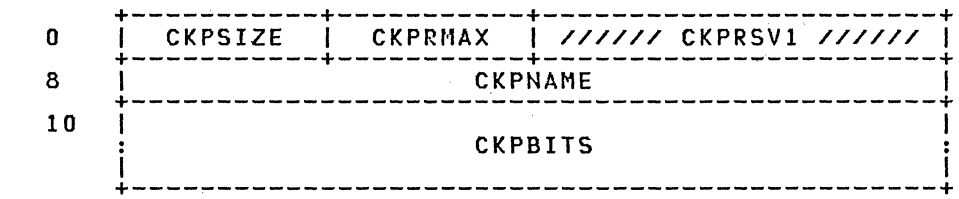
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

CHBSIZE	....	9	CHBATTN	0008	20	CHYCMDB	0009	..	CHYCHEK	0089	..
CHXCHEK	0041	..	CHBCENT	0008	01	CHYCMDT	000A	..	CHYCMDB	0051	..
CHXCMDB	0009	..	CHBCNTL	0008	40	CHYCNCT	0030	..	CHYCMDT	0052	..
CHXCMDT	000A	..	CHBEOFL	0008	08	CHYDATN	0038	..	CHYCNCT	0078	..
CHXCNCT	0030	..	CHBHIO	0008	04	CHYFLAG	0008	..	CHYDATN	0080	..
CHXDATN	0038	..	CHBMNOP	0008	80	CHYIDAW	002C	..	CHYFLAG	0050	..
CHXFLAG	0008	..	CHBM370	0008	40	CHYNCCW	0014	..	CHYIDAW	0070	..
CHXFLG2	0042	..	CHBPREP	0008	80	CHYOTHR	0000	..	CHYNCCW	0058	..
CHXIDAW	0028	..	CHBRDBK	0008	20	CHYPKEY	000B	..	CHYOTHR	0048	..
CHXNCCW	0010	..	CHBREAD	0008	02	CHYPLG	0040	..	CHYPKEY	0053	..
CHXOTHR	0000	..	CHBREST	0008	10	CHYRCNT	0018	..	CHYPLG	0088	..
CHXPKEY	000B	..	CHBSADS	0008	04	CHYRSV1	000C	..	CHYRCNT	0060	..
CHXPLG	0040	..	CHBSCMD	0008	08	CHYRSV2	0024	..	CHYRSV1	0054	..
CHXRCNT	0018	..	CHBSIZE	0008	09	CHYRSV3	0042	..	CHYRSV2	006C	..
CHXRSV1	0043	..	CHBWAIT	0008	02	CHYSTAT	0020	..	CHYSTAT	0068	..
CHXSTAT	0020	..	CHBWEOF	0008	10	CHYYADD	0022	..	CHYXADD	006A	..
CHXYADD	0022	..	CHBWRIT	0008	01						

CKPBLOK: TELECOMMUNICATIONS CHECKPOINT BLOCK

CKPBLOK provides checkpoint information needed for warm start recovery for 3704/3705 Communication Controllers and enabled lines and resources. The RDEVCKPT field of the RDEVBLOK points to CKPBLOK. CKPBLOK is found in NETWORK copy.



SIZE

HEADER SIZE IN DOUBLEWORDS (CKPBKSZ) 2

Disp	Name	Len	Key	Description
0	CKPSIZE	2		CKPBLOK SIZE IN DOUBLEWORDS
2	CKPRMAX	2		NUMBER OF RESOURCES CHECKPOINTED
4	CKPRSV1	4		RESERVED FOR IBM USE
8	CKPNAME	8		370X CONTROL PROGRAM REFERENCE NAME
10	CKPBITS	0		BIT MAP OF ENABLED LINES OR RESOURCES

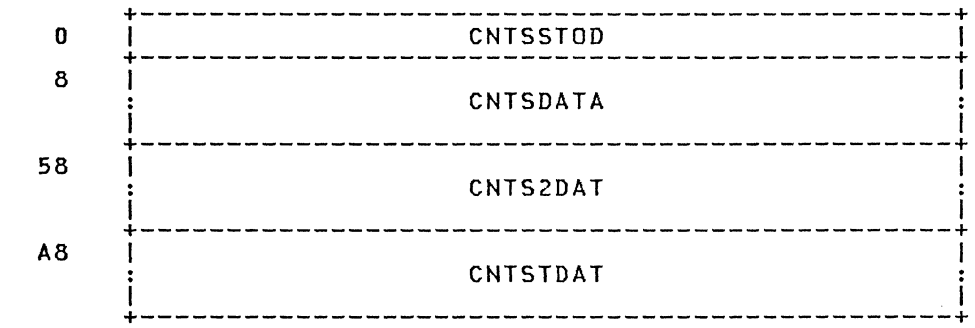
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CKPBITS 0010 .. CKPNAME 0008 .. CKPRSV1 0004 .. CKPSIZE 0000 ..
CKPBKSZ .... 2 CKPRMAX 0002 ..

CNTSREC: 3880 STORAGE CONTROL COUNTS DATA RECORD BLOCK

CNTSREC contains subsytem counts data obtained via the SSC CCW issued for each device. At the time of data collection, CNTSREC is time-stamped. CNTSREC is pointed to by CACHDPT in the CACHBLOK. CNTSREC is found in CACHBLOK copy.



SIZE

CNTSREC SIZE IN DOUBLEWORDS (CNTSSIZE) 1F

Disp	Name	Len	Key	Description
0	CNTSTOD	8		TOD OF COUNTS DATA
8	CNTSDATA	50		BUFFER FOR SUBSYSTEM COUNTS OF FIRST STORAGE DIRECTOR
0	CNTS2DAT	50		BUFFER FOR SUBSYSTEM COUNTS OF SECOND STORAGE DIRECTOR
8	CNTSTDAT	50		BUFFER FOR TOTAL SUBSYSTEM COUNTS

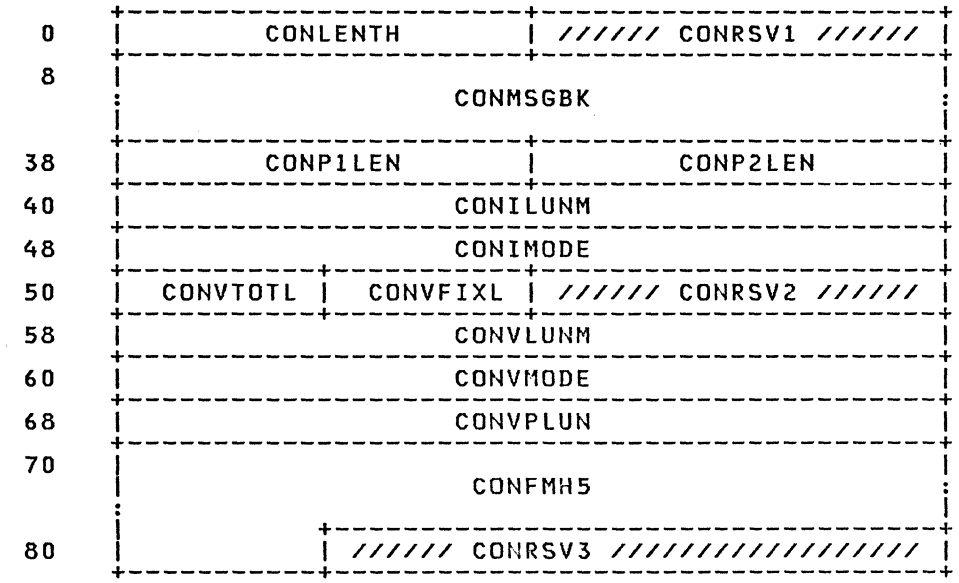
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CNTSDATA 0008 .. CNTSTOD 0000 .. CNTSTDAT 00A8 .. CNTS2DAT 0058 ..
CNTSSIZE 0000 07

CONEXT: APPC CONNECTION PARAMETER LIST EXTENSION

CONEXT contains information pertaining to the IUCV/APPC connection extension area and the allocation data available to a virtual machine when a path is being established. The CONEXT block is created when an IUCV/APPC connect is performed and is released when the target of the connect receives the data, accepts the connection, or severs the path. CONEXT is found in CONEXT copy.



SIZE

LENGTH OF ALLOCATION DATA (CONDATAL) 32
SIZE OF CONEXT IN DOUBLEWORDS (CONEXTSZ) B

Disp	Name	Len	Key	Description
0	CONLENTH	4		EXTENSION LENGTH IN DOUBLEWORDS
4	CONRSV1	4		RESERVED FOR IBM USE
8	CONMSGBK	48		ALLOCATE DATA MSGBLOK
38	CONP1LEN	4		LENGTH OF DATA ON FIRST PAGE
3C	CONP2LEN	4		LENGTH OF DATA ON SECOND PAGE
40	CONIDATA	16		AREA FOR CONNECTION EXTENSION DATA
40	CONILUNM	8		LU_NAME SPECIFIED
48	CONIMODE	8		MODE NAME SPECIFIED
50	CONVMARE	32		VM AREA OF ALLOCATE DATA

50	CONVTOTL	2	TOTAL LENGTH
52	CONVFIXL	2	FIXED LENGTH FIELDS LENGTH
54	CONRSV2	4	RESERVED FOR IBM USE
58	CONVLUNM	8	LU_NAME SPECIFIED
60	CONVMODE	8	MODE NAME SPECIFIED
68	CONVPLUN	8	PARTNER LU_NAME
70	CONFMH5	18	FMH5 ATTACH
78	CONFSYNC	1	SYNCHRONIZATION LEVEL
7A	CONFTPN	8	TRANSACTION PROGRAM NAME
84	CONRSV3	5	RESERVED FOR IBM USE

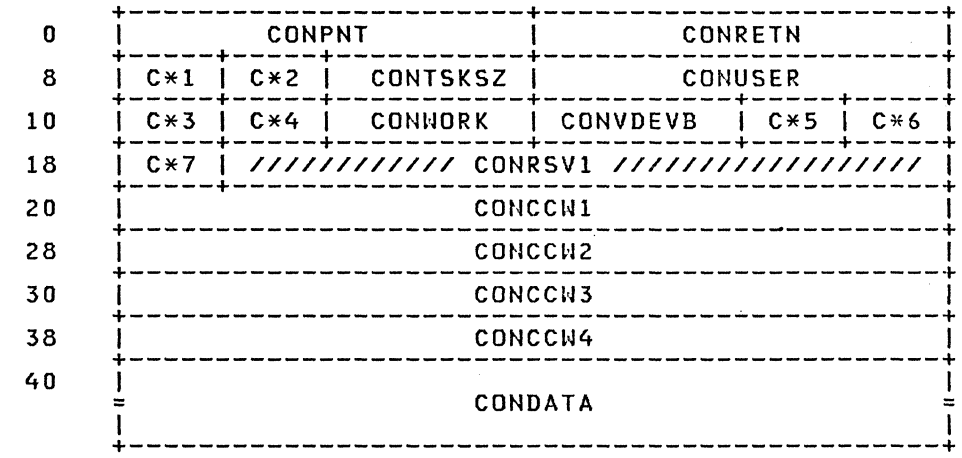
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

CONDATAL	....	32	CONILUNM	0010	..	CONP2LEN	000C	..	CONVLUNM	0028	..
CONEXTSZ	....	B	CONIMODE	0018	..	CONRSV1	0004	..	CONVMARE	0020	..
CONFMH5	0040	..	CONLENTH	0000	..	CONRSV2	0054	..	CONVMODE	0030	..
CONFSYNC	0048	..	CONMSGBK	0008	..	CONRSV3	0084	..	CONVPLUN	0038	..
CONFTPN	004A	..	CONP1LEN	0008	..	CONVFIXL	0022	..	CONVTOTL	0020	..
CONIDATA	0010	..									

CONTASK: CONSOLE I/O PACKAGE

CONTASK contains data and control information pertinent to the control and communication between virtual and real terminal console tasks and command streams. The RDEVCON field of the RDEVBLOK and the NICQPNT field of the NICBLOK point to CONTASK. CONTASK is found in IOBLOKS copy.



SIZE

CONTASK SIZE IN DOUBLEWORDS (CONTSIZE) 8

Disp	Name	Len	Key	Description
0	CONPNT	4		ADDRESS OF NEXT CONTASK
4	CONRETN	4		ADDRESS OF SAVEAREA FOR RETURN
8	CONSTAT	1	C*1	CONTASK STATUS CONTROL FLAGS

Values defined in CONSTAT

80	CONOUTPT	OUTPUT CONTASK
40	CONRESP	RESPONSE EXPECTED FROM THIS CONTASK
20	CONACTV	CONTASK IS ACTIVE ON REAL DEVICE
10	CONCNTL	THIS IS A CONTROL CONTASK ONLY
08	CONESCP	CONTASK CONTAINS DEVICE DEPENDENT DATA
04	CONRTRY	START-STOP: RETRY OPERATION IN PROGRESS
04	CONRESET	REMOTE 3270: CONTASK HAS BEEN RESET
02	CONSPLT	OUTPUT DATA BEING SPLIT VIA RDEVLLEN
01	CONSYNC	CONTASK FOR SYNCHRONIZATION ONLY

9	CONPARM	1	C*2	DMKQCN PARAMETER FLAGS
A	CONTSKSZ	2		CONTASK SIZE IN DOUBLEWORDS
C	CONUSER	4		ADDRESS OF VMBLOK FOR DESTINATION USER

```
10   CONFSS      1 C*3  FLAGS FOR FULL SCREEN SUPPORT

  Values defined in CONFSS

  11 CONWSF             WRITE STRUCTURED FIELD
  0F CONFSOP            ANY FULL SCREEN OPERATION
  0D CONEWA             ERASE/WRITE ALTERNATE OPERATION
  0D CONFSWT            ANY FULL SCREEN WRITE
  08 CONALT             ERASE/WRITE ALTERNATE OPERATION
  06 CONRMOD            READ MODIFIED OPERATION
  05 CONEWRT            ERASE/WRITE OPERATION
  04 CONMOD             MODIFIED OPERATION
  02 CONRD              FULL SCREEN READ
  01 CONWRT             FULL SCREEN WRITE

11   CONPARM2    1 C*4  DMKQCN R2 B2 PARAMETERS

12   CONWORK     2      LENGTH FOR FSS OUTPUT BLOCKING

12   CONWORK1    1      ADVANCED FUNCTION W/A (HIGHLIGHT)

13   CONWORK2    1      ADVANCED FUNCTION W/A (COLOR)

14   CONVDEVB    2      VIRTUAL CUU OF THE DEVICE

16   CONLNCNT    1 C*5  3270 SCREEN LINE COUNT

17   CONFLAGS    1 C*6  MISCELLANEOUS FLAGS

  Values defined in CONFLAGS

  80 SCRCMDR            SCREEN COMMAND RESPONSE CONTASK
  40 CONWRTRD           CONTASK CONTAINS WRITE/READ
  20 CONMORE            'MORE' CONTASK
  10 CONPFWRT           PF ECHO WRITE CONTASK
  08 CONPFDEL           PF DELAY WRITE CONTASK
  04 CONNEWL            IMBEDDED NEWLINE FOUND

17   CONLABEL    1      I/O RETURN INDEX FOR REMOTE 3270S

18   CONFLG2     1 C*7  MISCELLANEOUS FLAGS

  Values defined in CONFLG2

  40 CONNCB             NONCONTIGUOUS BUFFER
  08 CONLED             LIMITED EDIT WRITE

19   CONRSV1     7      RESERVED FOR IBM USE

20   CONCCW1     8      FIRST CONSOLE I/O CCW

20   CONADDR     4      CCW DATA ADDRESS

20   CONCOMND    1      CCW COMMAND CODE

24   CONFLAG     1      CCW FLAG BITS

25   CONDWC      1      DIAGNOSE WRITE CONTROL

  Values defined in CONDWC

  FF CONDCNCL           CLEAR SCREEN WITHOUT 'MORE ...'
  FE CONDRFMT           CLEAR & REFORMAT THE SCREEN
  80 CONDCLR            CLEAR SCREEN BEFORE OUTPUT
  7F CONDMSK            MASK FOR ALL BUT CONDCLR BIT
```

40	CONDIAG		DIAGNOSE CONSOLE WRITE
3F	CONDLN		BITS CONTAINING LINE NUMBER
10	CONPPA1		PASS PA1 KEY FLAG (FSS ONLY)
26	CONCNT	2	CCW BYTE COUNT
28	CONCCW2	8	SECOND CONSOLE I/O CCW
28	CONLNRES	1	SCREEN LINE RESIDUAL BYTE COUNT
28	CONADDR2	4	CCW DATA ADDRESS
2C	CONFLAG2	1	CCW FLAG BITS
2D	CONDWC2	1	DIAGNOSE WRITE CONTROL
2E	CONCNT2	2	CCW BYTE COUNT
30	CONCCW3	8	THIRD CONSOLE I/O CCW
30	CONADDR3	4	CCW DATA ADDRESS
32	CONSRID	2	SOURCE IDENTIFIER
34	CONFLAG3	1	CCW FLAG BITS
34	CONDEST	2	DESTINATION RESOURCE ID
35	CONDWC3	1	DIAGNOSE WRITE CONTROL
36	CONCNT3	2	CCW BYTE COUNT
36	CONRTAG	2	REQUEST TAG FOR THIS CONTASK
38	CONCCW4	8	FOURTH CONSOLE I/O CCW
38	CONSYSR	1	370X SYSTEM RESPONSE BYTE
38	CONDLE	1	DLE FOR BSC TRANSPARENT TEXT
38	CONSFCNT	2	COUNT OF START FIELD ORDERS
39	CONEXTR	1	370X EXTENDED RESPONSE BYTE
39	CONSYN	3	BISYNC HEADER (STX-ESC-CMD)
39	CONSTX	1	START TEXT CHARACTER
3A	CONTCMD	2	BTU COMMAND/MODIFIER
3A	CONESC	1	ESCAPE CHARACTER
3B	CONCMD	1	COMMAND CODE FOR REMOTE STATION
3C	CONFUNC	1	BDU FUNCTION CONTROL FLAGS
3C	CONWCC	1	WRITE CONTROL CHARACTER
3C	CONSYNXP	4	BSC XPAR HDR (DLE-STX-ESC-CMD)
3C	CONDLE1	1	DLE OF DLE-STX SEQUENCE
3D	CONDFLG	1	BDU DATA CONTROL FLAGS
3D	CONSBA	1	START BUFFER ADDRESS

3D	CONSYN1	3	NORMAL BSC HEADER
3D	CONSTX1	1	START OF TEXT CHARACTER
3E	CONDCNT	2	TEXT DATA LENGTH
3E	CONSBADR	2	BUFFER ADDRESS
3E	CONESC1	1	ESCAPE CHARACTER
3F	CONCMD1	1	REMOTE COMMAND CODE
40	CONDATA	0	OUTPUT DATA AREA (VARIABLE LENGTH)

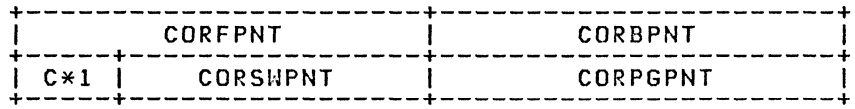
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CONACTV	0008	20	CONDLN	0025	3F	CONLNRES	0028	..	CONSRID	0032	..
CONADDR	0020	..	CONDMSK	0025	7F	CONMOD	0010	04	CONSTAT	0008	..
CONADDR2	0028	..	CONDRFMT	0025	FE	CONMORE	0017	20	CONSTX	0039	..
CONADDR3	0030	..	CONDWC	0025	..	CONNCB	0018	40	CONSTX1	003D	..
CONALT	0010	08	CONDWC2	002D	..	CONNEWL	0017	04	CONSYN	0039	..
CONCCW1	0020	..	CONDWC3	0035	..	CONOUTPT	0008	80	CONSYNC	0008	01
CONCCW2	0028	..	CONESC	003A	..	CONPARM	0009	..	CONSYNXP	003C	..
CONCCW3	0030	..	CONESCP	0008	08	CONPARM2	0011	..	CONSYN1	003D	..
CONCCW4	0038	..	CONESC1	003E	..	CONPFDEL	0017	08	CONSYSR	0038	..
CONCMD	003B	..	CONEWA	0010	0D	CONPFWRT	0017	10	CONTCMD	003A	..
CONCMD1	003F	..	CONEWRT	0010	05	CONPNT	0000	..	CONTGMXB	....	FA8
CONCNT	0026	..	CONEXTR	0039	..	CONPPA1	0025	10	CONTGMXD	....	1F5
CONCNTL	0008	10	CONFLAG	0024	..	CONRD	0010	02	CONTSIZE	....	8
CONCNT2	002E	..	CONFLAGS	0017	..	CONRESET	0008	04	CONTSKSZ	000A	..
CONCNT3	0036	..	CONFLAG2	002C	..	CONRESP	0008	40	CONUSER	000C	..
CONCOMND	0020	..	CONFLAG3	0034	..	CONRETN	0004	..	CONVDEVB	0014	..
CONDATA	0040	..	CONFLG2	0018	..	CONRMOD	0010	06	CONWCC	003C	..
CONDCLR	0025	80	CONFSOP	0010	0F	CONRSV2	0019	..	CONWORK	0012	..
CONDCNCL	0025	FF	CONFSS	0010	..	CONRTAG	0036	..	CONWORK1	0012	..
CONDCNT	003E	..	CONFSWT	0010	0D	CONRTRY	0008	04	CONWORK2	0013	..
CONDEST	0034	..	CONFUNC	003C	..	CONSBA	003D	..	CONWRT	0010	01
CONDFLG	003D	..	CONLABEL	0017	..	CONSBADR	003E	..	CONWRTRD	0017	40
CONDIAG	0025	40	CONLED	0018	08	CONSFCNT	0038	..	CONWSF	0010	11
CONDLE	0038	..	CONLNCNT	0016	..	CONSPLT	0008	02	SCRCMDR	0017	80
CONDLE1	003C	..									

CORTABLE: STORAGE ALLOCATION TABLE

CORTABLE maintains the status and ownership of each page frame of real storage for use by page management routines. The ACORETBL field of the PSA points to CORTABLE. CORTABLE is found in CORE copy.



Disp	Name	Len	Key	Description
0	CORFPNT	4		ADDRESS OF NEXT CORTABLE ENTRY IN QUEUE
0	CORVM	4		ADDRESS OF VMBLOK OF PAGE OWNER
4	CORBPNT	4		ADDRESS OF PREVIOUS ENTRY IN QUEUE
4	CORLCNT	4		PAGE LOCK COUNT FOR CORIOLCK
8	CORSWPNT	4		ADDRESS OF SWAPTABLE FOR PAGE
8	CORFLAG	1	C*1	CORTABLE ENTRY STATUS FLAGS

Values defined in CORFLAG

80	CORIOLCK	PAGE LOCKED FOR I/O - CORLCNT GREATER THAN 0
40	CORCFLCK	PAGE LOCKED BY CONSOLE FUNCTION
20	CORFLUSH	PAGE IS IN FLUSH LIST
10	CORFREE	PAGE IS IN FREE LIST
08	CORSHARE	PAGE IS SHARED
04	CORRSV	PAGE IS RESERVED
04	CORSWAP	PAGE IS LOGICALLY SWAPPED
02	CORCP	PAGE BELONGS TO CP
01	CORDISA	PAGE DISABLED - NOT AVAILABLE

C	CORPGPNT	4		POINTER TO PAGTABLE FOR PAGE

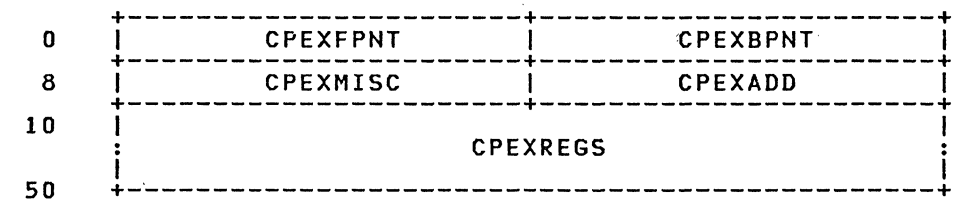
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CORBPNT	0004	..	CORFLAG	0008	..	CORIOLCK	0008	80	CORSHARE	0008	08
CORCFLCK	0008	40	CORFLUSH	0008	20	CORLCNT	0004	..	CORSWAP	0008	04
CORCP	0008	02	CORFPNT	0000	..	CORPGPNT	000C	..	CORSWPNT	0008	..
CORDISA	0008	01	CORFREE	0008	10	CORRSV	0008	04	CORVM	0000	..

CPEXBLOK: CP EXECUTE BLOCK

CPEXBLOK maintains register values and addressing information (module address or entry point address) to handle a delayed transfer of control. Stacked CPEXBLOKs are queued off DMKPTROQ. CPEXBLOK is found in CPEXBLOK copy.



SIZE

CPEXBLOK SIZE IN DOUBLEWORDS (CPEXSIZE) A

Disp	Name	Len	Key	Description
0	CPEXFPNT	4		POINTER TO NEXT CPEXBLOK
4	CPEXBPNT	4		POINTER TO PREVIOUS CPEXBLOK
8	CPEXMISC	4		USE MAY VARY WITH STACKER
8	CPEXTYPE	1		TYPE OF BLOCK ON CPEXBLOK CHAIN
	Values defined in CPEXTYPE			
	80 CPEXDEFR			DEFERRED INTERRUPT REQUEST
	40 CPEXPRIO			CPEXBLOK WITH PRIORITY
A	CPEXPROC	2		ADDRESS OF PROCESSOR RELATED TO BLOCK
C	CPEXADD	4		EXECUTION ADDRESS
10	CPEXREGS	64		EXECUTION REGISTERS
10	CPEXR0	4		REGISTER ZERO ON RETURN
14	CPEXR1	4		REGISTER ONE ON RETURN
18	CPEXR2	4		REGISTER TWO ON RETURN
1C	CPEXR3	4		REGISTER THREE ON RETURN
20	CPEXR4	4		REGISTER FOUR ON RETURN
24	CPEXR5	4		REGISTER FIVE ON RETURN
28	CPEXR6	4		REGISTER SIX ON RETURN
2C	CPEXR7	4		REGISTER SEVEN ON RETURN
30	CPEXR8	4		REGISTER EIGHT ON RETURN
34	CPEXR9	4		REGISTER NINE ON RETURN

38	CPEXR10	4	REGISTER TEN ON RETURN
3C	CPEXR11	4	REGISTER ELEVEN ON RETURN
40	CPEXR12	4	REGISTER TWELVE ON RETURN
44	CPEXR13	4	REGISTER THIRTEEN ON RETURN
48	CPEXR14	4	REGISTER FOURTEEN ON RETURN
4C	CPEXR15	4	REGISTER FIFTEEN ON RETURN

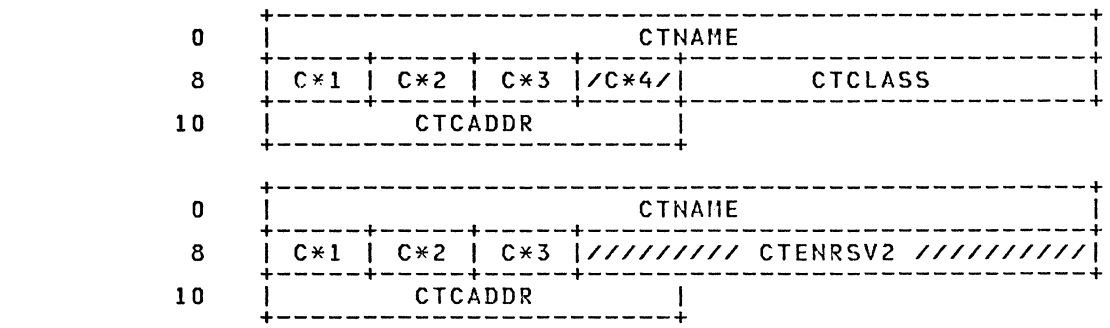
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CPEXADD	000C	..	CPEXREGS	0010	..	CPEXR14	0048	..	CPEXR6	0028	..
CPEXBPNT	0004	..	CPEXR0	0010	..	CPEXR15	004C	..	CPEXR7	002C	..
CPEXDEFR	0008	80	CPEXR1	0014	..	CPEXR2	0018	..	CPEXR8	0030	..
CPEXFPNT	0000	..	CPEXR10	0038	..	CPEXR3	001C	..	CPEXR9	0034	..
CPEXMISC	0008	..	CPEXR11	003C	..	CPEXR4	0020	..	CPEXSIZE	....	A
CPEXPRIO	0008	40	CPEXR12	0040	..	CPEXR5	0024	..	CPEXTYPE	0008	..
CPEXPROC	000A	..	CPEXR13	0044	..						

CTENTRY: COMMAND/SUBCOMMAND TABLE ENTRY

CTENTRY Dsect expands into the following internal format for a command entry in DMKCFC. It also expands into a similar internal format for a subcommand entry in DMKCMD, the difference being that the reserved field expands to five bytes, displacing the CTCLASS field. CTENTRY is found in CMDTABLE copy.



SIZE

COMMAND TABLE ENTRY SIZE IN BYTES (CTSIZE) 14

Disp	Name	Len	Key	Description
0	CTNAME	8		COMMAND/SUBCOMMAND NAME
8	CTTRUNC	1	C*1	MINIMUM ALLOWED TRUNCATION
9	CTFLAG	1	C*2	FLAGS

Values defined in CTFLAG

80	CTFLAST	LAST ENTRY FOR COMMAND/OPERAND
40	CTFSUBCM	SUBCOMMAND ENTRIES EXIST
20	CTFALIAS	THIS IS AN ALIAS ENTRY
01	CTFCHANG	CLASS OVERRIDDEN AT IPL

A	CTTYPE	1	C*3	FUNCTION GROUPING FLAGS

Values defined in CTTYPE

80	CTTSEOF	SYSTEM OPERATION FUNCTION
40	CTTSERF	RESOURCE FUNCTION
20	CTTSEPF	SYSTEM PROGRAMMING FUNCTION
10	CTTSESF	SPOOLING FUNCTION
08	CTTSEAF	SYSTEM ANALYTICAL FUNCTION
04	CTTSECF	SYSTEM SUPPORT FUNCTION
02	CTTSEGF	GENERAL FUNCTION

B	CTENRSV1	1	C*4	RESERVED FOR IBM USE
B	CTENRSV2	5		RESERVED FOR IBM USE
C	CTCLASS	4		COMMAND CLASS SPECIFICATION

```
  10    CTCADDR     4       COMMAND PROCESSOR, SUBCOMMAND, OR
                            ALIAS ENTRY ADDRESS
```

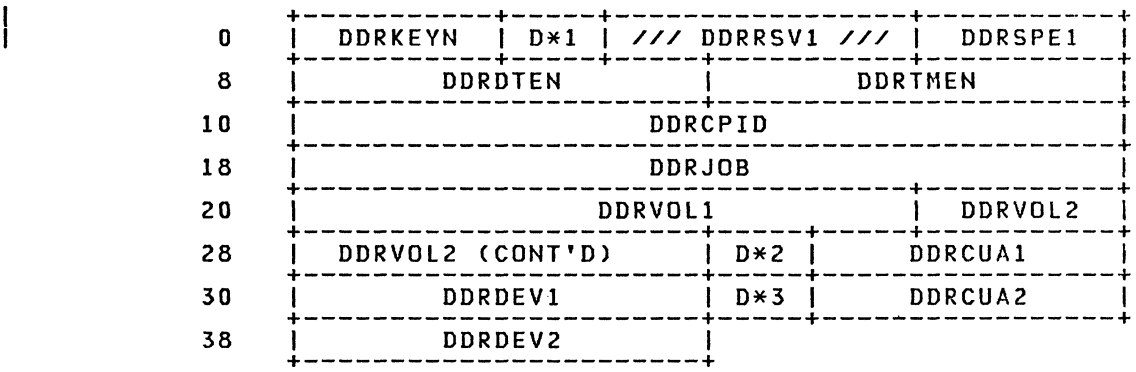
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CTCADDR	0010	..	CTFCHANG	0009	01	CTSIZE	....	14	CTTSEOF	000A	80
CTCLASS	000C	..	CTFLAG	0009	..	CTTRUNC	0008	..	CTTSEPF	000A	20
CTENRSV1	000B	..	CTFLAST	0009	80	CTTSEAF	000A	08	CTTSERF	000A	40
CTENRSV2	000B	..	CTFSUBCM	0009	40	CTTSECF	000A	04	CTTSESF	000A	10
CTFALIAS	0009	20	CTNAME	0000	..	CTTSEGF	000A	02	CTTYPE	000A	..

DDRREC: RECONFIGURATION MACRO

DDRREC is used in the SVC 76-initiated error recording process for type 60 DASD dump restore (DDR) dynamic device reallocation records. The reallocation records contain the replacement of the virtual "FROM" and "TO" control unit addresses (CUA) by the real addresses of the real DASD devices. DDRREC is found in DDRREC copy.



SIZE

DDR RECORD SIZE IN BYTES (DDRSIZE) 3C

Disp	Name	Len	Key	Description
0	DDRKEYN	2		TYPE AND OP SYSTEM
2	DDRSWS1	1	D*1	SWITCH BYTE 0
3	DDRRSV1	3		RESERVED FOR IBM USE
6	DDRSPE1	2		RECORD COUNT
8	DDRDTEN	4		DATE
C	DDRTMEN	4		TIME
10	DDRCPID	8		PROCESSOR ID AND MODEL
18	DDRJOB	8		JOB USING 'FROM' DEVICE
20	DDRVOL1	6		VOLUME SERIAL 'FROM' DEVICE
26	DDRVOL2	6		VOLUME SERIAL 'TO' DEVICE
2C	DDRDEVP1	1	D*2	DEVICE ID OF 'FROM' DASD
2D	DDRCUA1	3		PRIMARY CUA OF 'FROM' DEVICE
30	DDRDEV1	4		DEVICE TYPE 'FROM' DEVICE
34	DDRDEVP2	1	D*3	DEVICE ID 'TO' DASD
35	DDRCUA2	3		PRIMARY CUA OF 'TO' DEVICE

```
  38   DDRDEV2    4       DEVICE TYPE OF 'TO' DEVICE
```

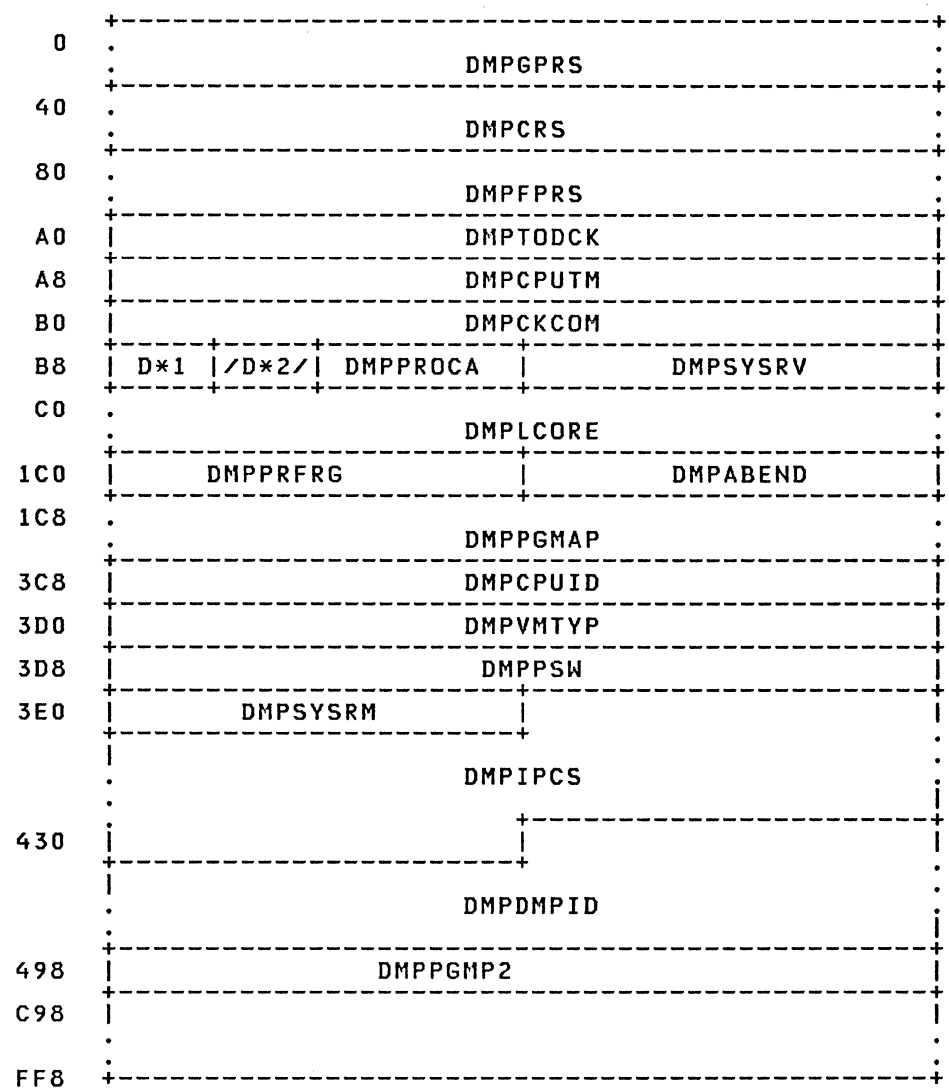
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

DDRCPID	0010	..	DDRDEV1	0030	..	DDRKEYN	0000	..	DDRSWS1	0002	..
DDRCUA1	002D	..	DDRDEV2	0038	..	DDRRSV1	0003	..	DDRTMEN	000C	..
DDRCUA2	0035	..	DDRDTEN	0008	..	DDRSIZE	....	3C	DDRVOL1	0020	..
DDRDEVP1	002C	..	DDRJOB	0018	..	DDRSPE1	0006	..	DDRVOL2	0026	..
DDRDEVP2	0034	..									

DMPINREC: DUMP FILE INFORMATION RECORD

DMPINREC retains vital system register and storage location values necessary for the CPDUMP or VMDUMP file. See also DMPKYREC. DMPINREC is found in DMPBLOKS copy.



Disp	Name	Len	Key	Description
0	DMPGPRS	64		16 GENERAL PURPOSE REGISTERS

40	DMPCRS	64		16 CONTROL REGISTERS
80	DMPFPRS	32		4 FLOATING POINT REGISTERS
A0	DMPTODCK	8		TIME OF DAY CLOCK
A8	DMPCPUTM	8		CPU TIMER
B0	DMPCKCOM	8		TIME OF DAY CLOCK COMPARATOR
B8	DMPFLAG	1	D*1	FLAG BYTE
	Values defined in DMPFLAG			
	80 HALFPAGE			LAST RECORD IN DUMP FILE IS 2K
B9	DMPRSV1	1	D*2	RESERVED FOR IBM USE
BA	DMPPROCA	2		ABENDING PROCESSOR ADDRESS
BC	DMPSYSRV	4		SYSTEM-GENERATED STORAGE SIZE
C0	DMPLCORE	256		LOCATIONS 0-256 OF REAL MEMORY
1C0	DMPPRFRG	4		PREFIX REGISTER
1C4	DMPABEND	4		ABEND CODE FOR FAILING PROCESSOR
1C8	DMPPGMAP	512		BITS INDICATING PAGES IN THE DUMP FILE
3C8	DMPCPUID	8		CPU IDENTIFICATION FROM REAL CPU
3D0	DMPVMTYP	8		VM PROCESSOR ID TYPE FROM PARM *
3D8	DMPPSW	8		PSW OF VIRTUAL MACHINE
3E0	DMPSYSRM	4		REAL STORAGE SIZE
3E4	DMPIPCS	80		RESERVED FOR USE BY IPCS DURING ITS BUILDING OF A DUMP FILE
434	DMPDMPID	100		VMDUMP INFORMATION; NOT CP DUMPS
498	DMPPGMP2	0		BIT MAP OF 16384 BITS NEEDED WHEN GREATER THAN 16 MB STORAGE IS ONLINE TO CP

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

DMPABEND	01C4	..	DMPFLAG	00B8	..	DMPPGMAP	01C8	..	DMPSYSRM	03E0	..
DMPCKCOM	00B0	..	DMPFPRS	0080	..	DMPPGMP2	0498	..	DMPSYSRV	00BC	..
DMPCPUID	03C8	..	DMPGPRS	0000	..	DMPPRFRG	01C0	..	DMPTODCK	00A0	..
DMPCPUTM	00A8	..	DMPIPCS	03E4	..	DMPPROCA	00BA	..	DMPVMTYP	03D0	..
DMPCRS	0040	..	DMPLCORE	00C0	..	DMPPSW	03D8	..	HALFPAGE	00B8	80
DMPDMPID	0434	..									

DMPKYREC: DUMP FILE KEY STORAGE RECORD

DMPKYREC contains the storage keys of each 2K block of main storage at the time of SVC 0 or a PSW restart condition. DMPKYREC and DMPINREC are used for debugging operations. DMPKYREC is found in DMPBLOKS copy.

SIZE

DMPKYREC SIZE IN DOUBLEWORDS (DMPKYSZE) 200
DMPKYREC SIZE IN BYTES (DMPKYRSZ) 1000

Disp	Name	Len	Key	Description
0	DMPKEYS	4096		MAIN STORAGE STORAGE KEYS
0	DMPKEY	1	0*1	STORAGE KEY FOR EACH 2K BLOCK

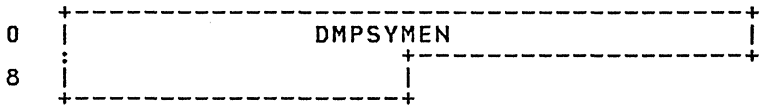
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

DMPKEY 0000 DMPKEYS 0000 DMPKYRSZ 0000 ** DMPKYSZE 0000 **

DMPTBREC: DUMP FILE SYMBOL TABLE RECORD

DMPTBREC is a listing of all entry points in the system and their locations.
DMPTBREC is found in DMPBLOKS copy.



SIZE

DMPTBREC SIZE IN BYTES (DMPTBRSZ) C
DMPTBREC SIZE IN DOUBLEWORDS (DMPTBSZE) 1

Disp	Name	Len	Key	Description
0	DMPSYMEN	12		341 SYMBOL TABLE ENTRIES
0	DMPSYMNM	8		CSECT OR ENTRY POINT NAME
8	DMPSYMVA	4		LOCATION IN MAIN STORAGE OF THIS SYMBOL

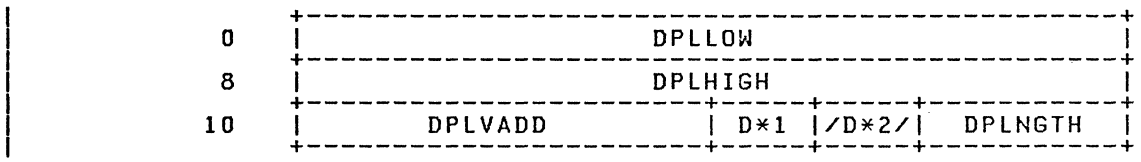
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

DMPSYMEN 0000 DMPSYMVA 0008 DMPTBRSZ 0000 0C DMPTBSZE 0000 01
DMPSYMNM 0000

DPLIST: DIRECTORY PAGE LIST

DPLIST is used to map one directory page entry. DMKSYSPL points to the table of entries. Each page of the directory has an entry in this table. An entry for one page contains its virtual page address, the masked value of the lowest userid in that page, and the masked value of the highest userid in that page. The entry for the final directory page includes an appended fullword that has an end-of-list indicator (DPLEND) equal to X'FF', and the table length (DPLNGTH). DPLIST is found in DPLIST copy.



SIZE

SIZE OF ONE ENTRY PLUS TRAILER (DPLSIZ2) 18
SIZE OF ONE ENTRY (DPLSIZE) 14

Disp	Name	Len	Key	Description
0	DPLLOW	8		LOW USERID IN THIS VIRTUAL PAGE
8	DPLHIGH	8		HIGH USERID IN THIS VIRTUAL PAGE
10	DPLVADD	4		VIRTUAL PAGE ADDRESS
14	DPLEND	1	D*1	END OF LIST INDICATOR
	Values defined in DPLEND			
	FF DPLENDFG			END OF LIST VALUE
15	DPLRSV1	1	D*2	RESERVED FOR IBM USE
16	DPLNGTH	2		LENGTH OF LIST

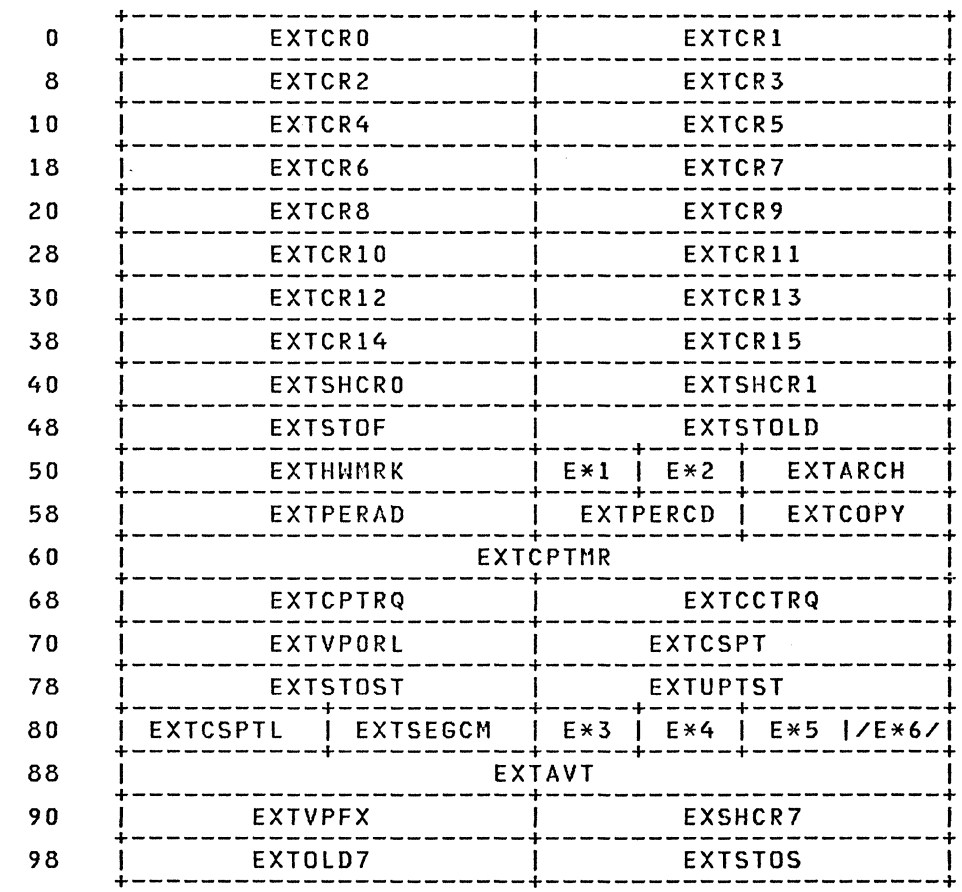
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

DPLEND	0014	..	DPLLOW	0000	..	DPLRSV1	0015	..	DPLSIZ2	....	18
DPLENDFG	0014	FF	DPLNGTH	0016	..	DPLSIZE	....	14	DPLVADD	0010	..
DPLHIGH	0008	..									

ECBLOK: VMBLOK EXTENSION FOR VIRTUAL MACHINE WITH RELOCATE

ECBLOK provides an extension to the VMBLOK for virtual machine operation in System/370 Extended control mode. The VMECEXT field of the VMBLOK points to ECBLOK. ECBLOK is found in VMBLOK copy.



SIZE

ECBLOK SIZE IN DOUBLEWORDS (EXTSIZE) 14

Disp	Name	Len	Key	Description
0	EXTCR0	4		VIRTUAL C-REG 0; ARCHITECTURE CONTROLS
4	EXTCR1	4		VIRTUAL C-REG 1; SEGMENT TABLE POINTER
8	EXTCR2	4		VIRTUAL CONTROL REGISTER 2
C	EXTCR3	4		VIRTUAL CONTROL REGISTER 3

10	EXTCR4	4		VIRTUAL CONTROL REGISTER 4
14	EXTCR5	4		VIRTUAL CONTROL REGISTER 5
18	EXTCR6	4		VIRTUAL CONTROL REGISTER 6
1C	EXTCR7	4		VIRTUAL CONTROL REGISTER 7
20	EXTCR8	4		VIRTUAL CONTROL REGISTER 8
24	EXTCR9	4		VIRTUAL CONTROL REGISTER 9
28	EXTCR10	4		VIRTUAL CONTROL REGISTER 10
2C	EXTCR11	4		VIRTUAL CONTROL REGISTER 11
30	EXTCR12	4		VIRTUAL CONTROL REGISTER 12
34	EXTCR13	4		VIRTUAL CONTROL REGISTER 13
38	EXTCR14	4		VIRTUAL CONTROL REGISTER 14
3C	EXTCR15	4		VIRTUAL CONTROL REGISTER 15
40	EXTSHCR0	4		SHADOW CONTROL REGISTER ZERO
44	EXTSHCR1	4		SHADOW CONTROL REGISTER ONE
48	EXTSTOF	4		ADDRESS OF FIRST STOBLOK ON CHAIN
4C	EXTSTOLD	4		C-REG 1 VALUE CORRESPONDING TO TABLES
50	EXTHWMRK	4		VIRTUAL MACHINE VV=VR HIGH WATERMARK
50	EXTPOREL	4		RELOCATED PAGE TABLE ADDRESS FOR V=R USER
54	EXTSTOMX	1	E*1	MAXIMUM NUMBER OF STOBLOKS
55	EXTSTOCT	1	E*2	CURRENT NUMBER OF STOBLOKS
56	EXTARCH	2		ARCHITECTURE CONTROL INDEX
58	EXTPERAD	4		ADDRESS OF INSTRUCTION FOR PER INTERRUPT
5C	EXTPERCD	2		PER CODE TO BE REFLECTED
5E	EXTCOPY	2		LENGTH CODE FROM ACTIVE SEGTABLE ENTRY
60	EXTCPTMR	8		VIRTUAL CPU TIMER
68	EXTCPTRQ	4		ADDRESS OF TRQBLOK FOR CPU TIMER
6C	EXTCCTRQ	4		ADDRESS OF TRQBLOK FOR CLOCK COMPARATOR
70	EXTVPORL	4		RELOCATED VIRTUAL PAGE (DIAGANOSE '6C')
74	EXTCSPT	4		ADDRESS OF COMMON SHADOW PAGE TABLES
78	EXTSTOST	4		NUMBER OF STO STEALS
7C	EXTUPTST	4		NUMBER OF PAGE TABLE STEALS
80	EXTCSPTL	2		LENGTH OF COMMON SHADOW PAGE TABLES
82	EXTSEGCM	2		DISPLACEMENT OF COMMON AREA STE

84	EXTCSCT	1	E*3	NUMBER OF SEGMENTS IN COMMON AREA
85	EXTUSCT	1	E*4	SIZE OF USER SHADOW PAGE TABLE POOL
86	EXTFLAG1	1	E*5	SHADOW TABLE FLAG BYTE

Values defined in EXTFLAG1

80	EXTSH1V	STOBLOK FOR VIRT CR1 IS VALID
40	EXTSH7V	STOBLOK FOR VIRT CR7 IS VALID
20	EXTPSH7	A STOBLOK FOR VIRT CR7 IS BEING PROCESSED

87	EXTRSV1	1	E*6	RESERVED FOR IBM USE
88	EXTAVT	8		ACCUMULATED VTIME FOR VMAIP
90	EXTVPFX	4		VIRTUAL PREFIX VALUE
94	EXTSHCR7	4		SHADOW CONTROL REGISTER 7
98	EXTOLD7	4		LAST CONTENTS OF VIRTUAL CR7
9C	EXTSTOS	4		POINTER TO STOBLOK CORRESPONDING TO VIRTUAL CR7

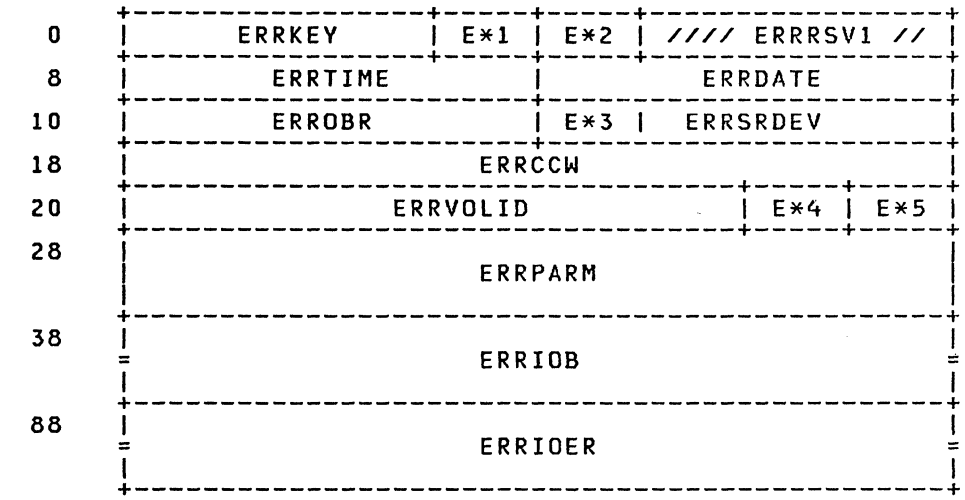
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

EXTARCH	0056	..	EXTCR15	003C	..	EXTHWMRK	0050	..	EXTSH7V	0086	40
EXTAVT	0088	..	EXTCR2	0008	..	EXTOLD7	0098	..	EXTSIZE	....	14
EXTCCTRQ	006C	..	EXTCR3	000C	..	EXTPERAD	0058	..	EXTSTOCT	0055	..
EXTCOPY	005E	..	EXTCR4	0010	..	EXTPERCD	005C	..	EXTSTOF	0048	..
EXTCPTMR	0060	..	EXTCR5	0014	..	EXTPSH7	0086	20	EXTSTOLD	004C	..
EXTCPTRQ	0068	..	EXTCR6	0018	..	EXTPOREL	0050	..	EXTSTOMX	0054	..
EXTCR0	0000	..	EXTCR7	001C	..	EXTRSV1	0087	..	EXTSTOS	009C	..
EXTCR1	0004	..	EXTCR8	0020	..	EXTSEGCM	0082	..	EXTSTOST	0078	..
EXTCR10	0028	..	EXTCR9	0024	..	EXTSHCR0	0040	..	EXTUPTST	007C	..
EXTCR11	002C	..	EXTCSCT	0084	..	EXTSHCR1	0044	..	EXTUSCT	0085	..
EXTCR12	0030	..	EXTCSPT	0074	..	EXTSHCR7	0094	..	EXTVPFX	0090	..
EXTCR13	0034	..	EXTCSPTL	0080	..	EXTSH1V	0086	80	EXTVPORL	0070	..
EXTCR14	0038	..	EXTFLAG1	0086	..						

ERRBLOK: ERROR BLOCK USED TO BUILD OBR/MDR

ERRBLOK contains data describing an error condition such as a channel failure or a device failure. ERRBLOK is found in ERRBLOK copy.



SIZE

HEADER SIZE IN BYTES (ERRHEADR) 18
ERRBLOK SIZE IN DOUBLEWORDS (ERRSIZE) 7
MDR ERRBLOK SIZE IN DOUBLEWORDS (ERRMSIZE) 3

Disp	Name	Len	Key	Description
0	ERRKEY	3		KEY USED TO DETERMINE OBR/MDR PROCESSING
3	ERRCPID	1	E*1	ADDRESS OF PROCESSOR EXPERIENCING ERROR
4	ERRSW2	1	E*2	3800-3/8 DEVICE INDICATOR
5	ERRRSV1	3		RESERVED FOR IBM USE
8	ERRTIME	4		TIME RECORD WAS BUILT
C	ERRDATE	4		DATE RECORD WAS BUILT
10	ERROBR	4		ADDRESS OBR/MDR RECORD
14	ERRFLAG	1	E*3	FLAG BYTE
15	ERRSRDEV	3		SAVE ADDRESS OF RDEVBLOK
18	ERRCCW	8		FAILING CCW
18	ERRMIOB	80		COPIED IOBLOK
18	ERRMIOER	88		COPIED IOERBLOK

```
 18    ERRCCNT     2       SIZE OF CONTASK DATA BUFFER
 1A    ERRCONT     0       CONTASK DATA BUFFER (VARIABLE LENGTH)
 20    ERRVOLID    6       VOLID OF FAILING DEVICE
 26    ERRSDR      1 E*4   SDRFLAGS FROM SDRBLOK
 27    ERRCORR     1 E*5   CORRELATION COUNT FOR MDR RECORDS
 28    ERRPARM    16       DEVICE DEPENDENT PARAMETER STRING
 38    ERRIOB     80       COPIED IOBLOK
 38    ERRIOER    88       COPIED IOERBLOK
   Values defined in ERRIOER
   80 ERRKEEP             IF ERP CYLS FULL, KEEP ERRBLOK
```

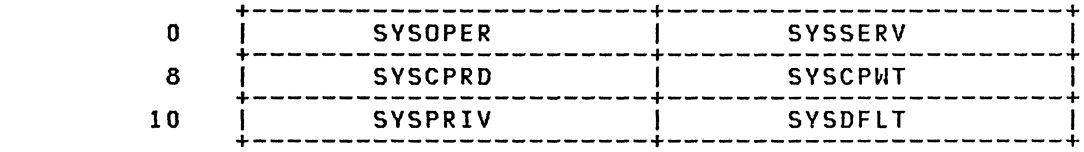
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
ERRCCNT  0018  ..   ERRFLAG  0014  ..   ERRMIOB  0018  ..   ERRSDR   0026  ..
ERRCCW   0018  ..   ERRHEADR ....  18   ERRMIOER 0018  ..   ERRSIZE  ....   7
ERRCONT  001A  ..   ERRIOB   0038  ..   ERRMSIZE ....   3   ERRSRDEV 0015  ..
ERRCORR  0027  ..   ERRIOER  0038  ..   ERROBR   0010  ..   ERRSW2   0004  ..
ERRCPID  0003  ..   ERRKEEP  0038  80   ERRPARM  0028  ..   ERRTIME  0008  ..
ERRDATE  000C  ..   ERRKEY   0000  ..   ERRRSV1  0005  ..   ERRVOLID 0020  ..
```

FCNTABLE: FUNCTION TABLE

FCNTABLE contains privilege classes that are valid for certain functions that are internal to CP. FCNTABLE is found in SYSFCN macro.



Disp	Name	Len	Key	Description
0	SYSOPER	4		OPERATOR CLASSES
4	SYSSERV	4		SERVICE USER CLASSES
8	SYSCPRD	4		ACCESS TO IOCP READ
C	SYSCPWT	4		ACCESS TO IOCP WRITE
10	SYSPRIV	4		PRIVILEGED USER GROUP
14	SYSDFLT	4		DEFAULT USER MASK

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SYSCPRD  0008  ..   SYSDFLT  0014  ..   SYSPRIV  0010  ..   SYSSERV  0004  ..
SYSCPWT  000C  ..   SYSOPER  0000  ..
```

FORMBLOK: FORM NUMBER DEFINITION BLOCK

FORMBLOK is generated by the SYSFORM macro in DMKSYS and describes forms used by the operator and user. The DMKSYSFL field in DMKSYS points to FORMBLOK.

SIZE

SIZE OF ONE TABLE ENTRY IN BYTES (FORMNTRY) 11

Disp	Name	Len	Key	Description
0	FORMUSER	8		USER FORM
	Values defined in FORMUSER			
	FF FORMSEND			END-OF-LIST MARKER IN FORMUSER
8	FORMOPER	8		OPERATOR FORM
10	FORMFLAG	1	F*1	FLAG BYTE
	Values defined in FORMFLAG			
	80 FORMNARR			NARROW FORM

CROSS REFERENCE

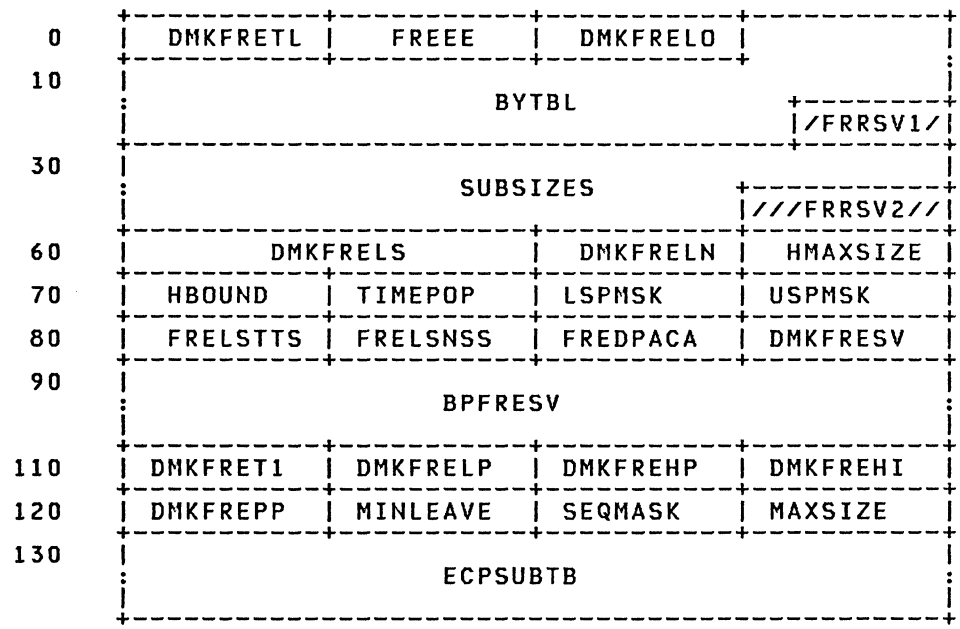
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

FORMFLAG 0010 .. FORMNTRY 0000 11 FORMSEND 0000 FF FORMUSER 0000 ..
FORMNARR 0010 80 FORMOPER 0008 ..

FRECOM: COMMON AREA SHARED BY DMKFRE AND DMKFRT

FRECOM contains variables and equates in DMKFRE that are shared by DMKFRT. DMKFRT uses the external references DMKFREMT for addressability to items in FRECOM. FRECOM is found in FRECOM MACRO.



Disp	Name	Len	Key	Description
0	DMKFRETL	4		ADDRESS OF THE SYSTEM CORE TABLE
4	FREEE	4		CORE TABLE FLAG (ON FREE PAGES)
8	DMKFRELO	4		END OF FREE AREA IN LOW CORE
C	BYTBL	33		CONVERSION TABLE FOR SUBPOOLS
10	BYTBL	33		CONVERSION TABLE FOR SUBPOOLS
2D	FRRSV1	3		RESERVED FOR IBM USE
30	S3	4		SUBPOOL SIZE 3
34	S6	4		SUBPOOL SIZE 6
38	S9	4		SUBPOOL SIZE 9
3C	S12	4		SUBPOOL SIZE 12

40	S15	4	SUBPOOL SIZE 15
44	S18	4	SUBPOOL SIZE 18
48	S21	4	SUBPOOL SIZE 21
4C	S24	4	SUBPOOL SIZE 24
50	S27	4	SUBPOOL SIZE 27
54	S30	4	SUBPOOL SIZE 30
56	FRRSV2	4	RESERVED FOR IBM USE
58	S33	4	SUBPOOL SIZE 33
5C	ENDSIZES	0	(MUST FOLLOW LAST SUBPOOL SIZE)
60	DMKFRELS	8	START OF LARGE STORAGE CHAIN
68	DMKFRELN	4	COUNT OF BLOCKS ON DMKFRELS
68	FREENUM		EQUATE FOR DMKFRELN
6C	HMAXSIZE	4	ADDRESS OF HMAXSIZE
70	DMKFREH1	0	
70	HBOUND	4	HPO SUBPOOL BOUNDRY SIZE
74	TIMEPOP	4	FULLWORD TIMER COMPARISON
78	LSPMSK	4	LOWER SUBPOOL ROUND UP MSKK8
7C	USPMSK	4	UPPER SUBPOOL ROUND UP MSKK8
80	FRELSTTS	4	TOTAL REQUESTS FOR BLOCK ON DMKFRELS LIST
80	DMKFRETS	0	EQUATE FOR FRELSTTS
84	FRELSNSS	4	REQUESTS FOR NONSUBPOOL BLOCKS ON DMKFRELS LIST
88	FREDPACA	4	NUMBER OF PAGES IN DPA FOR CACHE ALIGNED STORAG
8C	DMKFRESV	4	TO ALLOW FREE STORAGE TO BE EXTENDED
90	BPFRESV	32	BACK POCKET SAVE AREA TO CALL POINTER
110	DMKFRET1	4	HPO SUBPOOL BOUNDRY SIZE
114	DMKFRELP	4	SET BY DMKSTA TO PRIME START
118	DMKFREHP	4	SET BY DMKSTA TO PRIME END
11C	DMKFREHI	4	START OF FIXED FREE AREA
120	DMKFREPP	4	STA SET TO 3% OF PRIME BLOCKS
124	MINLEAVE	4	MINIMUM NUMBER OF SUBPOOLS TO LEAVE ON QUEUE
128	SEQMSK	4	MASK COUNT FIELD, OR SEQUENCE NUMBER
12C	MAXSIZE	4	MAXIMUM SUBPOOL SIZE IN DOUBLEWORDS
12C	DMKFREMX	4	EQUATE FOR MAXSIZE

```
130   ECPSUBTB          SUBPOOL POINTERS
ECPSOP    EQU  X'E6'    ECPS OPCODE
FREEH     EQU  X'22'    ECPS OPCODE FOR HPO FREEH
NUMSTEAL  EQU  2        NUMBER OF SUBPOOLS TO STEAL
CLKMASK   EQU  X'0F'    NUMBER MASK FOR FREQ. STORE CLOCK
HWORD     EQU  16       NUMBER OF BYTES IN A HALFWORD
INCRBY1   EQU  1        INCREMENT BY 1
MAXCSIZE  EQU  96       LARGEST CACHE-ALIGNED SUBPOOL
CASPSIZE  EQU  16       CACHE-ALIGNED SUBPOOL INCREMENT
CASPSIZ$  EQU  4        LOG BASE(2) OF CASPSIZE
PNTR      EQU  0       POINTER TO NEXT BLOCK ON DMKFRELS
SIZE      EQU  4       SIZE OF THIS BLOCK ON DMKFRELS
SPMTH     EQU  4       HPO SUBPOOL OFFSET
SPTIME    EQU  0       HPO SUBPOOL TIMESTAMP OFFSET
DISPSUBT  EQU  66      ECPSUBTB DISPLACEMENT FROM SUBSIZES (DISPSUBT) 66
MAXSPSIZ  EQU  21      MAXIMUM SIZE OF A SUBPOOL BLOCK
NUMCAPLS  EQU          MAXCSIZE/CASPSIZE  NUMBER CACHE-ALIGNED SUBPOOLS
```

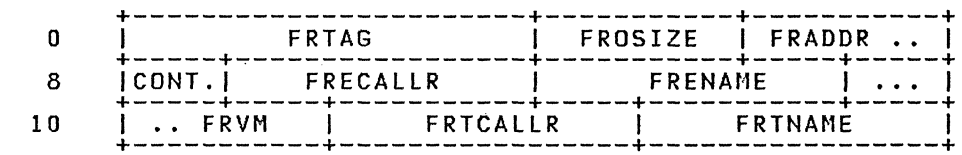
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
BPFRESV  0090 ..    DMKFREPP 0120 ..    FREEE    0004 ..    HBOUND   0070 ..
BYTBL    0010 ..    DMKFRET1 0110 ..    FREEH    0068 22    LSPMSK   0078 ..
DMKFREHI 011C ..    DMKFRETL 0000 ..    FRELSNSS 0084 ..    MAXSIZE  012C ..
DMKFREHP 0118 ..    DMKFRETS 0000 ..    FRELSTTS 0080 ..    MINLEAVE 0120 ..
DMKFRELN 0068 ..    DMKFRESV 008C ..    FREENUM  0068 ..    SEQMASK  0124 ..
DMKFRELO 0008 ..    ECPSOP   0068 E6    FRRSV1   002D ..    SUBSIZES 0030 ..
DMKFRELP 0114 ..    ECPSUBTB 0130 ..    FRRSV2   0056 ..    TIMEPOP  0074 ..
DMKFRELS 0060 ..    FREDPACA 0088 ..    HMAXSIZE 006C ..    USPMSK   007C ..
DMKFREMX 012C ..
```

FREEXT: FRET TRAP EXTENSION

FREEXT provides information about free storage requests for CP FRET TRAP processing. When the trap is enabled, the extension area is added to each free storage request. FREEXT is found in FREEXT copy.



SIZE

SIZE OF FREEXT IN BYTES (FRBYTES) 18
SIZE OF FREEXT IN DOUBLEWORDS (FRSIZE) 3

Disp	Name	Len	Key	Description
0	FRTAG	4		EYECATCHER TAG
4	FROSIZE	2		ORIGINAL REQUEST SIZE IN DOUBLEWORDS
6	FRADDR	3		ADDRESS OF FREE STORAGE BLOCK
9	FRECALLR	3		ADDRESS OF CALLER OF DMKFRE
C	FRENAME	3		DMKFRE CALLER NAME (IF PAGEABLE)
F	FRVM	3		USER'S VMBLOK ADDRESS
12	FRTCALLR	3		ADDRESS OF CALLER OF DMKFRT
15	FRTNAME	3		DMKFRT CALLER NAME (IF PAGEABLE)

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

FRADDR	0006	..	FRENAME	000C	..	FRTAG	0000	..	FRTNAME	0015	..
FRBYTES	....	18	FROSIZE	0004	..	FRTCALLR	0012	..	FRVM	000F	..
FRECALLR	0009	..	FRSIZE	....	3						

FRPMEXT: PRIME FRET TRAP EXTENSION

FRPMEXT provides information about prime storage requests for CP FRET TRAP processing. When the trap is enabled, the prime extension area is added to each prime storage request. FRPMEXT is found in FREEXT copy.

SIZE

FRPMEXT SIZE IN DOUBLEWORDS (FRSIZE) 1

Disp	Name	Len	Key	Description
0	FRPMTAG	1	F*1	PRIME EYECATCHER
	Values defined in FRPMTAG			
	8A FRPALLOC			PRIME EYECATCHER WHEN ALLOCATING
	80 FRPRETRN			PRIME EYECATCHER WHEN DEALLOCATING
1	FRPMNAME	3		DMKFRE CALLER NAME (IF PAGEABLE)
4	FRPMSIZE	1	F*2	LOW-ORDER BYTE OF SIZE REQUEST
5	FRPMCALR	3		ADDRESS OF CALLER OF DMKFRE
FRPCACHL	EQU	7F		CACHELINE BOUNDARY MASK

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
FRPALLOC 00 8A      FRPMCALR 05 ..      FRPMSIZE 04 ..      FRPMTAG  00 ..
FRPCACHL 00 7F      FRPMNAME 01 ..      FRPRETRN 00 80
```

HALF1ENT: CPTRAP TRACE TABLE TYPES -- FIRST HALF

HALF1ENT is a table of halfword indicators representing CP trace types. The first halfword determines whether CP trace type X'00' is to be saved. If the trace type is X'00', further examination is made. See SELECT. HALF1ENT is found in CPTRAP copy.

SIZE

LENGTH OF ENTRY (HALF1SZE) 2

Disp	Name	Len	Key	Description
0	HALF1VAL	2		INDICATOR/DISPLACEMENT FOR HALF1 ENTRY

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

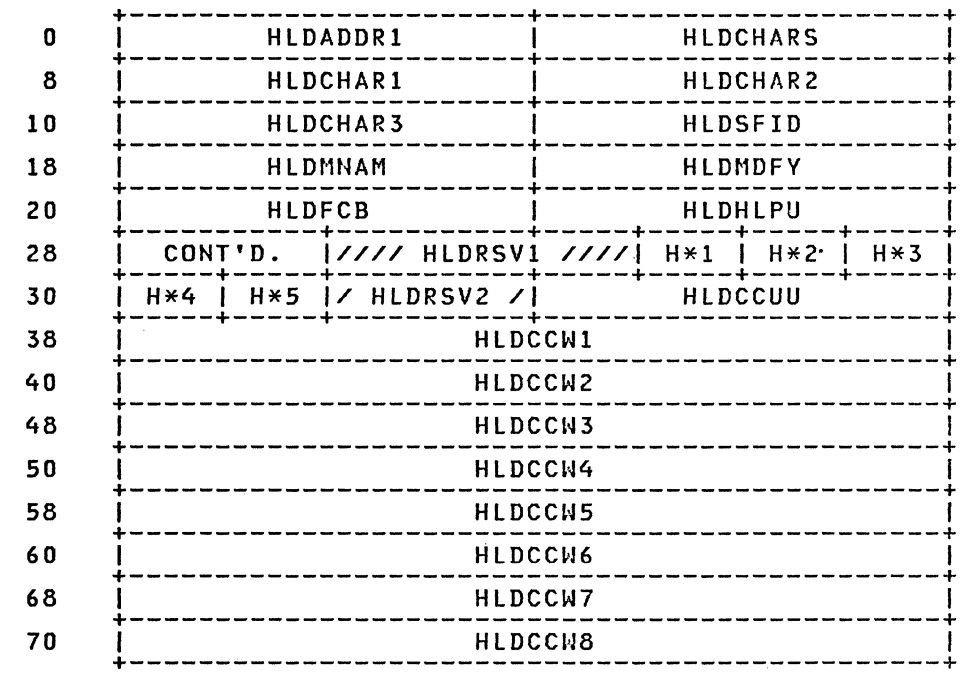
HALF1SZE .... 2 HALF1VAL 0000 ..

HCBLOK: HARDWARE CALL BLOCK

HCBLOK is the interface that CP uses to issue the MSSFCALL.

HLDAREA: HOLD AREA BLOCK

HLDAREA is a shared work area for DMKTCS and DMKTCT. This hold area contains the information needed to initialize a 3800 printer. HLDAREA is found in HLDAREA copy.



SIZE

SIZE IN DOUBLEWORDS (HLDSIZE) F

Disp	Name	Len	Key	Description
0	HLDADDR1	4		ADDRESS OF TRANSLATION AREA
4	HLDCHARS	4		CHARACTER ARRANGEMENT TABLE TO LOAD
8	HLDCHAR1	4		CHARACTER ARRANGEMENT TABLE TO LOAD
C	HLDCHAR2	4		CHARACTER ARRANGEMENT TABLE TO LOAD
10	HLDCHAR3	4		CHARACTER ARRANGEMENT TABLE TO LOAD
14	HLDSFID	4		SPOOL FILE ID
18	HLDMNAM	4		MODULE TO LOAD
1C	HLDMDFY	4		COPY MODIFICATION
20	HLDFCB	4		FCB NAME

24	HLDHLPU	6		FILE STATUS (HELD/PURGE)
2D	HLDSTCPY	1	H*1	STARTING COPY NUMBER
2E	HLDFLSHC	1	H*2	FLASH COUNT
2F	HLDCPY	1	H*3	NUMBER OF COPIES TO PRINT
30	HLDFLAG	1	H*4	COPY OF SPFLAG1
31	HLDMCHR	1	H*5	COPY MODIFICATION TRANSLATION VALUE
34	HLDCCUU	4		3800 CCUU ADDRESS
38	HLDCCW1	8		3800 SETUP CCW NUMBER 1
40	HLDCCW2	8		3800 SETUP CCW NUMBER 2
48	HLDCCW3	8		3800 SETUP CCW NUMBER 3
50	HLDCCW4	8		3800 SETUP CCW NUMBER 4
58	HLDCCW5	8		3800 SETUP CCW NUMBER 5
60	HLDCCW6	8		3800 SETUP CCW NUMBER 6
68	HLDCCW7	8		3800 SETUP CCW NUMBER 7
70	HLDCCW8	8		3800 SETUP CCW NUMBER 8

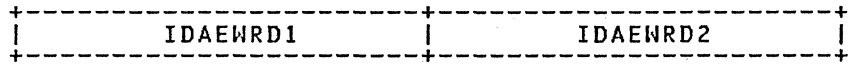
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

HLDADDR1	0000	..	HLDCCW6	0060	..	HLDCHAR3	0010	..	HLDMCHR	0031	.
HLDCCUU	0034	..	HLDCCW7	0068	..	HLDCPY	002F	..	HLDNDFY	001C	.
HLDCCW1	0038	..	HLDCCW8	0070	..	HLDFCB	0020	..	HLDMNAM	0018	.
HLDCCW2	0040	..	HLDCHARS	0004	..	HLDFLAG	0030	..	HLDSFID	0014	.
HLDCCW3	0048	..	HLDCHAR1	0008	..	HLDFLSHC	002E	..	HLDSIZE	....	
HLDCCW4	0050	..	HLDCHAR2	000C	..	HLDHLPU	0024	..	HLDSTCPY	002D	.
HLDCCW5	0058	..									

IDAENTRY: INDIRECT ADDRESSING LIST ENTRY

IDAENTRY contains entries in the Indirect Addressing List. IDAENTRY is found in IOBLOKS copy.



SIZE

SIZE OF TWO IDAL ENTRIES IN BYTES (TWOENTS) 8
SIZE OF ONE IDAL ENTRY IN BYTES (ONEENT) 4

Disp	Name	Len	Key	Description
0	IDAEWRD1	4		ENTRY IN AN IDA LIST
4	IDAEWRD2	4		ENTRY IN AN IDA LIST

CROSS REFERENCE

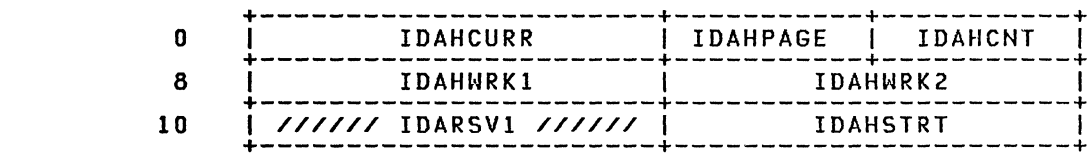
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IDAEWRD1 0000 .. IDAEWRD2 0004 .. ONEENT .... 4 TWOENTS 8

IDAHEAD: INDIRECT ADDRESSING LIST HEADER

IDAHEAD is the header for the Indirect Addressing List. IDAHEAD is found in IOBLOKS copy.



SIZE

SIZE OF IDAL HEADER + TRAILER (IDAHSIZD) 3

Disp	Name	Len	Key	Description
0	IDAHCURR	4		ADDRESS OF CURRENT IDAW
4	IDAHPAGE	2		NUMBER OF PAGES ADDRESSED BY IDAL
6	IDAHCNT	2		BYTES OF IDAL USED
8	IDAHWRK1	4		WORK AREA
C	IDAHWRK2	4		WORK AREA
10	IDARSV1			RESERVED FOR IBM USE
14	IDAHSTRT	4		FIRST IDAW

CROSS REFERENCE

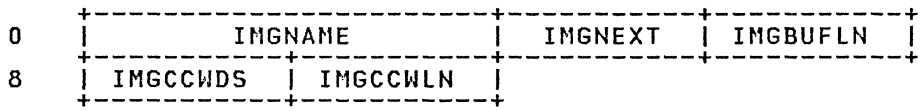
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
IDAHCNT  0006  ..   IDAHPAGE 0004  ..   IDAHSTRT 0014  ..   IDAHWRK2 000C  ..
IDAHCURR 0000  ..   IDAHSIZD ....   3   IDAHWRK1 0008  ..
```

IMGHDR: NEW IMAGE HEADER BLOCK

IMGHDR describes the header information for FCB or UCS images for modules DMKFCB, DMKUCS, DMKUCC, DMKUCB, DMKPIA, and DMKPIB. The LOADHEAD field in LOADPARM points to IMGHDR. IMGHDR is found in LDBLOK copy.



SIZE

SIZE OF BLOCK IN BYTES (IMGHDRSZ) C
SIZE OF BLOCK IN DOUBLEWORDS (IMGHDRSD) 2

Disp	Name	Len	Key	Description
0	IMGNAME	4		NAME OF LOAD BUFFER
4	IMGNEXT	2		DISPLACEMENT TO NEXT HEADER
6	IMGBUFLN	2		LENGTH OF THE LOAD BUFFER
8	IMGCCWDS	2		DISPLACEMENT TO UCS VERIFY CCWs
9	IMGFCBF1	1		FCB FLAG BYTE
	Values defined in IMGFCBF1			
	02 IMGFEXT			EXTENDED FCB
	01 IMGF3211			3211 TYPE FCB
A	IMGCCWLN	2		LENGTH OF THE UCS VERIFY CCWs
A	IMGFCBPI	1		DEFAULT INDEX VALUE FOR FCB
B	IMGFCBTI	1		NEW INDEX VALUE FOR FCB

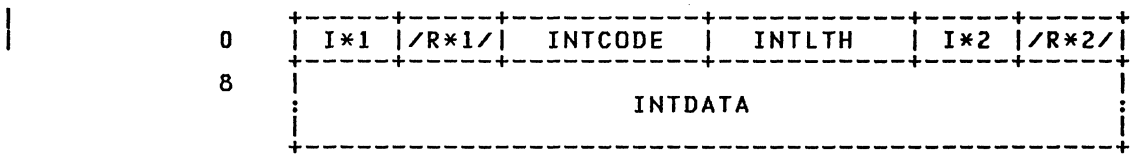
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IMGBUFLN	0006	..	IMGFCBF1	0009	..	IMGFEXT	0009	02	IMGHDRSZ	....	C
IMGCCWDS	0008	..	IMGFCBPI	000A	..	IMGF3211	0009	01	IMGNAME	0000	..
IMGCCWLN	000A	..	IMGFCBTI	000B	..	IMGHDRSD	....	2	IMGNEXT	0004	..

INTBLK: INTERFACE BLOCK FOR CPTRAP OUTPUT

INTBLK is a mapping of interface data to CPTRAP for CP or virtual machine interface data. It is always a 16-byte multiple to maintain readability of the incore buffers. INTBLK is found in CPTRAP copy.



Disp	Name	Len	Key	Description
0	INTTYPE	1	I*1	INTERFACE RECORD TYPE
	Values defined in INTTYPE			
	00 INTNULL			UNUSED AREA
	00 INTTMACH			DEFAULT MACHTYPE VALUE (NULL)
	3F INTTCP			CP INTERFACE RECORD
	3E INTTVT			VIRTUAL MACHINE INTERFACE RECORD
	3D INTTVG			VIRTUAL MACHINE GROUP RECORD
1	INTRSV1	1	R*1	RESERVED FOR IBM USE
2	INTCODE	2		RECORD CODE
4	INTLTH	2		LENGTH OF FULL RECORD
6	INTMTYPE	1	I*2	MACHINE TYPE FOR 3E RECORDS
	Values defined in INTMTYPE			
	08 INTCTRL			LENGTH OF CONTROL INFORMATION
7	INTRSV2	1	R*2	RESERVED FOR IBM USE
8	INTDATA	0		START OF DATA (VARIABLE LENGTH)

CROSS REFERENCE

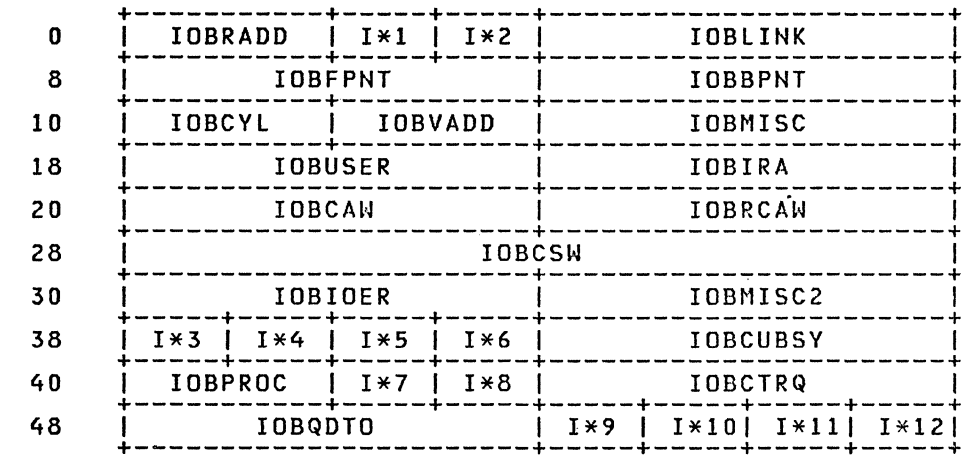
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

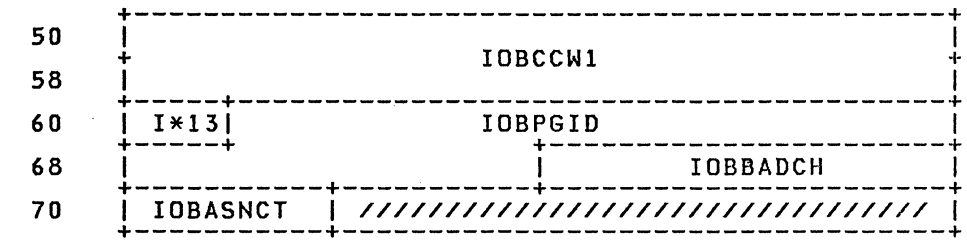
INTCODE	0002	..	INTMTYPE	0006	..	INTRSV2	0007	..	INTTVG	0000	3D
INTCTRL	0006	08	INTNULL	0000	00	INTTCP	0000	3F	INTTVT	0000	3E
INTDATA	0008	..	INTRSV1	0001	..	INTTMACH	0000	00	INTTYPE	0000	..
INTLTH	0004	..									

IOBLOK: I/O TASK CONTROL BLOCK

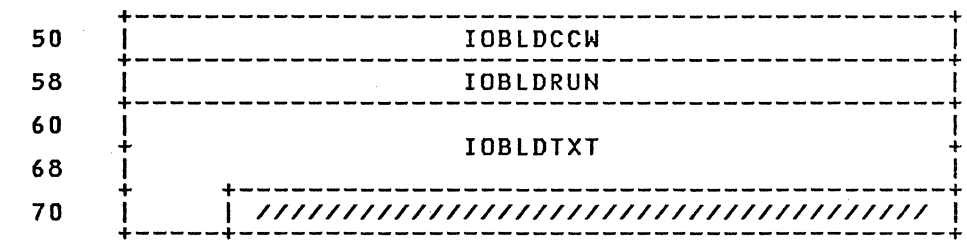
IOBLOK contains information required to perform I/O operations. The I/O request initiator for the I/O operation is either a CP-initiated or virtual machine-initiated event. There are five pointers to the IOBLOK: RCHFIOB field of the RCHBLOK, RCUFIOB field of the RCUBLOK, RDEVAIOB field of the RDEVBLOK, VDEVFIOB field of the VDEVBLOK, RDEVFIOB field of the RDEVBLOK. IOBLOK is found in IOBLOKS copy.



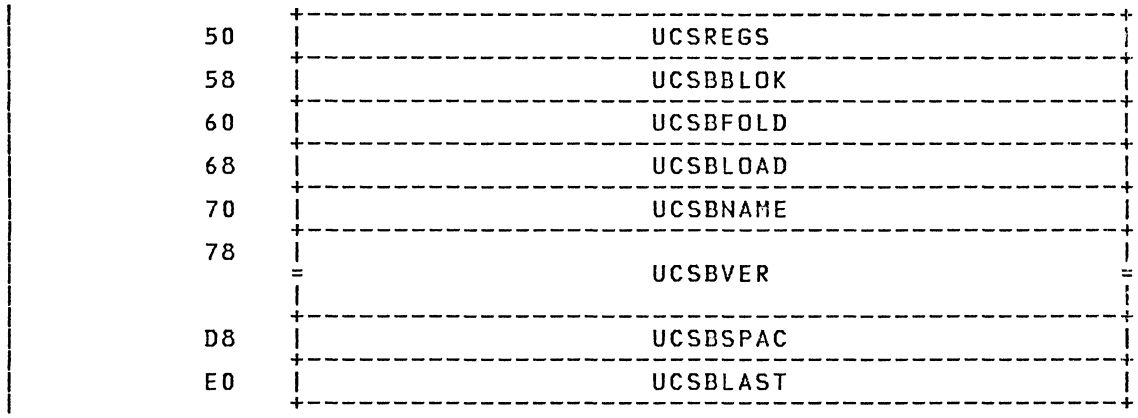
IOBLOK EXTENSION FOR 3480 ASSIGN/UNASSIGN



IOBLOK EXTENSION FOR 3480 DEVICE RELEASE



IOBLOK EXTENSION FOR UCS/FCB LOAD



SIZE

```
IOB + UCS EXTENSION SIZE IN DOUBLEWORDS (UCSBSIZE)  1D
IOB + 3480 EXTENSION SIZE IN DOUBLEWORDS (IOBLDSZ )   F
IOBLOK SIZE IN DOUBLEWORDS (IOBSIZE )   A
IOB 3480 EXTENSION SIZE IN DOUBLEWORDS (IOBXTRA )   5
MULTI-PATH IOB SIZE IN DOUBLEWORDS (IOBMSIZE)   3
```

Disp	Name	Len	Key	Description
0	IOBRADD	2		REAL DEVICE ADDRESS FOR SIO
2	IOBFLAG	1	I*1	IOBLOK FLAGS

Values defined in IOBFLAG

80	IOBCP	CP GENERATED I/O OPERATION
40	IOBRSTRT	RESTARTED OPERATION - IOBRCAW
20	IOBSPLT	DASD - CP SPLIT SEEK OPERATION
10	IOBPAG	IOBLOK CREATED FOR PAGING I/O
08	IOBRELCU	CONTROL UNIT RELEASED AT INITIATION
04	IOBERP	I/O TASK IS UNDER CONTROL OF ERP
02	IOBRES	I/O TASK HAS BEEN RESET
01	IOBHVC	I/O INITIATED VIA HVC

3	IOBSTAT	1	I*2	IOBLOK STATUS

Values defined in IOBSTAT

00	IOBCC0	PROCESSING I/O INTERRUPT
80	IOBFATAL	UNCORRECTABLE ERROR IN THIS I/O OPERATION
40	IOBFLT	MSS CYL FAULT IN PROCESS
20	IOBPATHF	PATH IS FIXED, USE IOBRADD VALUE
08	IOBMINI	THIS IS A MINI IOBLOK
04	IOBALTSK	CHANNEL PROGRAM - SEEK TO ALTERNATE TRACK
03	IOBCC3	PROCESSING CC 3, NOT AVAILABLE
02	IOBCC2	PROCESSING CC 2, CHANNEL BUSY
01	IOBCC1	PROCESSING CC 1, CSW STORED

4	IOBLINK	4		ADDRESS OF MULTI-PATH IOBLOK CHAIN
8	IOBFPNT	4		ADDRESS OF NEXT IOBLOK IN QUEUE

C	IOBBPNT	4		ADDRESS OF PREV IOBLOK IN QUEUE
10	IOBCYL	2		DASD - SEEK CYLINDER FOR THIS IOBLOK
10	IOBMQDTO	4		ADDRESS OF BLOCK IOB IS Q'D TO
12	IOBVADD	2		VIRTUAL DEVICE ADDRESS
12	IOBRCNT	2		RETRY COUNT FOR CP IOBLOKS
14	IOBMISC	4		USE VARIES ACCORDING TO CALLER
18	IOBUSER	4		ADDRESS OF VMBLOK OF USER
1C	IOBIRA	4		IOBLOK INTERRUPT RETURN ADDRESS
20	IOBCAW	4		ADDRESS OF CCW CHAIN
24	IOBRCAW	4		ADDRESS OF RESTART CCW CHAIN
28	IOBCSW	8		REAL CSW FOR I/O OPERATION
30	IOBIOER	4		ADDRESS OF IOERBLOK WITH SENSE
34	IOBMISC2	4		USE VARIES ACCORDING TO CALLER
38	IOBSPEC	1	I*3	IOBLOK SPECIAL REQUESTS FLAG

Values defined in IOBSPEC

80	IOBTIO	IOBLOK REQUEST FOR A 'TIO'
40	IOBHIO	IOBLOK REQUEST FOR A 'HIO'
20	IOBSIOF	IOBLOK DUE TO VIRTUAL 'SIOF'
10	IOBIMSTK	SHUTDOWN SDR FUNCTION
08	IOBUNSL	IOBLOK DUE TO UNSOLICITED INTERRUPT
04	IOBCOPY	IOBLOK ASSOCIATED WITH A COPY REQUEST
02	IOBSENS	SENSE OPERATION FOR COPY REQUEST
01	IOBTRPND	VIRTUAL TRACE PENDING ON THIS IOBLOK

39	IOBSPEC2	1	I*4	IOBLOK SPECIAL REQUESTS FLAG

Values defined in IOBSPEC2

80	IOBWRAP	I/O TASK FOR AUTOPOLL WRAP LIST
40	IOBCLN	VDEVBLOK LOCKED WHEN CCW GOT CONTROL
20	IOBUNREL	IOTASK CONTAINS RELEASE, UNTRN MUST PROC
10	IOBUC	UNIT CHECK STATUS
08	IOBSNSIO	NORMAL SENSE OPERATION IN PROGRESS
04	IOBREL	CHANNEL PROGRAM CONTAINS CP RELEASE
02	IOBRETRY	CPEXBLOK STACKED FOR RETRY
01	IOBFH	PAGING REQUEST FOR FH CYLINDER PAGE

3A	IOBSPEC3	1	I*5	IOBLOK SPECIAL REQUESTS FLAG

Values defined in IOBSPEC3

80	IOBSENSE	DON'T EXECUTE SENSE ON HARDWARE
40	IOBPST	PASS INTERRUPT TO USER
20	IOBCUE	SPECIAL CUE IOBLOK FOR SPM V=R
10	IOBVCUE	VIRTUAL CUE IOBLOK FOR SPM V=R
08	IOBOERR	IOB PASSED TO DMKCCH FOR ORIGINAL
04	IOBPVM	PASSTHRU I/O IN PROGRESS
02	IOBMSG	BUSY PROCESSING MESSAGE DMKCFR546I
01	IOBSIMS	SPECIAL 2400 CU BUSY FLAG

3B	IOBSPEC4	1	I*6	IOBLOK SPECIAL REQUESTS FLAG

Values defined in IOBSPEC4

80	IOBPMINT	INT FOR PMA-GUEST-KNOWN CHANNEL
40	IOBVHIO	HDV FOR ACTIVE IOBLOK FROM DMKVSJ
20	IOBRREL	RELEASE CCW FOR DEDICATED DEVICE
10	IOBSPM	REFLECT DEVICE BUSY TO SPM V=R
08	IOBCLRIO	ISSUE CLRIO AFTER HDV
04	IOBSIOEX	SIO/SIOF ISSUED
02	IOBIOLOK	I/O LOCK HELD DURING SYS EXTEND
01	IOBDIAG	DIAGNOSE 28 HAS BEEN INVOKED

3C	IOBCUBSY	4		ADDRESS OF NEXT CU BUSY IOBLOK
40	IOBPROC	2		PROCESSOR ADDRESS FOR SIO OR ERROR
42	IOBPATH	1	I*7	CURRENT BITS
43	IOBOFF	1	I*8	PATHS CURRENTLY OFFLINE
44	IOBCTRQ	4		MSS CYL FAULT TRQBLOK ADDRESS
48	IOBQDTO	4		ADDRESS OF BLOCK IOB IS QUEUED TO
4C	IOBERCNT	1	I*9	ERROR RETRY COUNT
4D	IOBRTCT	1	I*10	TIO RETRY COUNT
4E	IOBSPEC5	1	I*11	IOBLOK SPECIAL REQUESTS FLAG

Values defined in IOBSPEC5

80	IOBREMOT	INTERRUPT FOR REMOTE DEVICE
40	IOBFCNS	FORCED CONSOLE CLEANUP INDICATOR
20	IOBMID	MIH IN PROGRESS
10	IOBVDVIO	DEQUEUED FROM VDEVIO
08	IOBRESRV	RESERVE EXISTS IN CCW STRING
04	IOBDYNP	DYNAMIC PATHING IN PROGRESS
02	IOBRUN1	FIRST TIME TRY OF THE I/O
01	IOBQSTAT	REFLECT DEVICE BUSY CONDITION

4F	IOBRTCT2	1	I*12	BYTE MPX CH BUSY RETRY COUNT

50	IOBEND	0		LABEL FOR THE END OF IOBLOK
50	IOBCCW1	16		3480 ASSIGN/UNASSIGN EXTENSION
50	IOBSETP	8		SET PGID CCW WITH ESTABLISH FUNCTION
50	IOBUASN	8		UNASSIGN CCW
50	IOBSNSE	8		SENSE CCW
50	IOBLDCCW	8		LOAD DISPLAY CCW
50	UCSREGS	8		REGISTER SAVE AREA
58	IOBASN	8		ASSIGN CCW
58	IOBRESGN	8		SET PGID CCW WITH RESIGN FUNCTION
58	IOBRUNLD	8		REWIND UNLOAD CCW
58	IOBLDRUN	8		REWIND/UNLOAD CCW
58	UCSCCWS	144		LENGTH ATTRIBUTE FOR MOVE
58	UCSBBLOK	8		BLOCK DATA CHECKS
58	UCSGATE	8		UCS GATE CCW
58	UCSFCBL1	8		LOAD FORMS CONTROL BUFFER CCW
60	IOBFUNCT	1	I*13	FUNCTION CONTROL BYTE
60	IOBLDTXT	17		LOAD DISPLAY MESSAGE TEXT
60	UCSBFOLD	8		FOLD COMMAND
60	UCSBLOCK	8		BLOCK DATA CHECKS CCW
60	UCSFCBLD	8		LOAD FORMS CONTROL BUFFER CCW
61	IOBPGID	11		PATH GROUP ID FOR CCW
68	UCSBLOAD	8		LOAD UCSB CCW
68	UCSLOAD	8		LOAD UCS CCW
68	UCSFFLD	8		FOLD CCW
6C	IOBBADCH	4		BAD CHANNEL ADDRESS LIST ADDRESS
70	IOBASNCT	2		COUNTER FOR DOING ASSIGN CCW
70	UCSBNAME	8		PRINT BUFFER NAME CCW
70	UCSCCW43	8		DUMMY SENSE FOR FOLD COMMAND
78	UCSBVER	96		SPACE FOR TWELVE VERIFY CCWS
78	UCSCCW0B	8		SPACE COMMAND
80	UCSRDCC1	8		FIRST UCS READ CCW
80	UCSCCW07	8		DIAGNOSE GATE COMMAND
88	UCSRDCCW	8		SECOND UCS READ CCW

88	UCSCCW06	8	READ FCB REGISTER ADDRESS
90	UCSCCW04	8	DUMMY SENSE CCW
98	UCSNAME	4	POSITION FOR UCS NAME
98	UCSFCBAD	1	SPACE FOR FCB ADDRESS DATA
D8	UCSBSPAC	8	CCW FOR SPACE 3
E0	UCSBLAST	8	DUMMY SENSE CCW

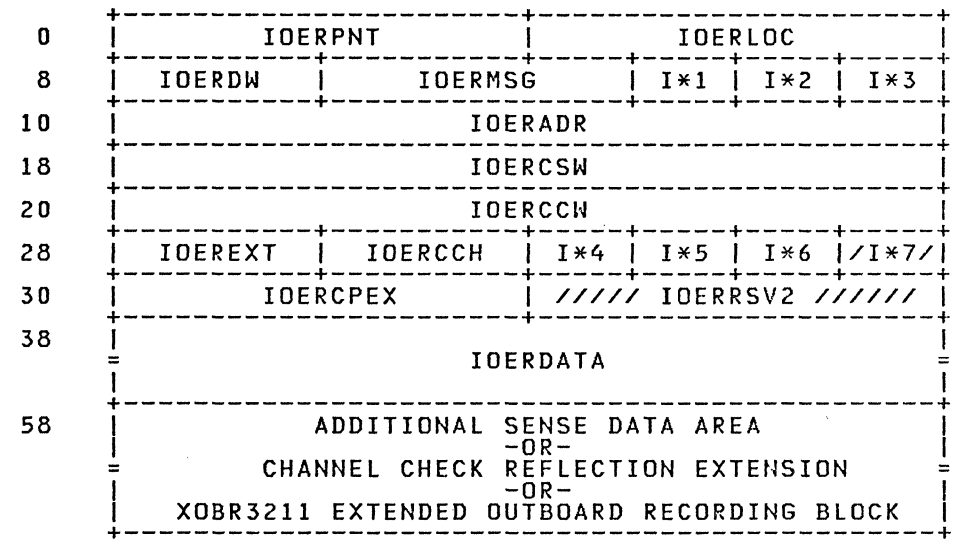
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

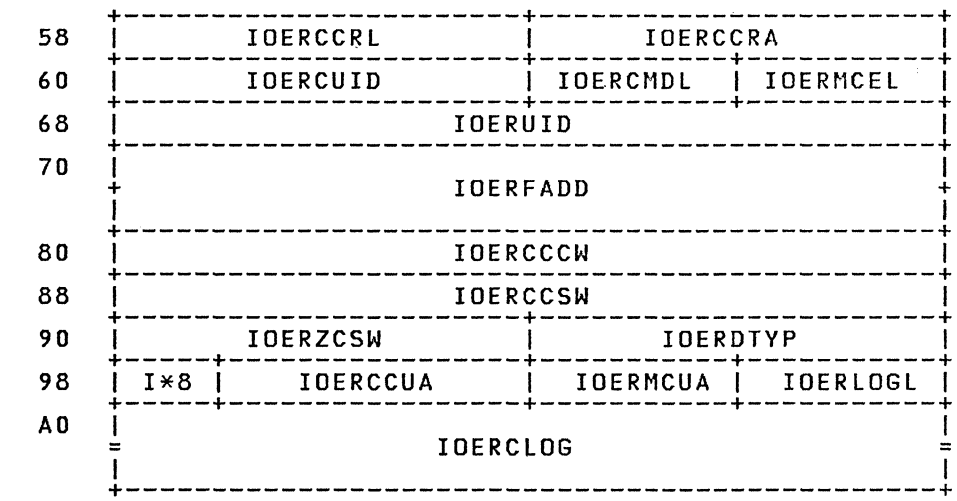
IOBALTSK	0003	04	IOBIMSTK	0038	10	IOBREMOT	004E	80	IOBUNSL	0038	0
IOBASN	0058	..	IOBIOER	0030	..	IOBRES	0002	02	IOBUSER	0018	.
IOBASNCT	0070	..	IOBIOLOK	003B	02	IOBRESGN	0058	..	IOBVADD	0012	.
IOBBADCH	006C	..	IOBIRA	001C	..	IOBRESRV	004E	08	IOBVCUE	003A	1
IOBBPNT	000C	..	IOBLDCCW	0050	..	IOBRETRY	0039	02	IOBVDVIO	004E	1
IOBCAW	0020	..	IOBLDRUN	0058	..	IOBRREL	003B	20	IOBVHIO	003B	4
IOBCCW1	0050	..	IOBLDSZ	....	F	IOBRSTRT	0002	40	IOBWRAP	0039	8
IOBCC0	0003	00	IOBLDTXT	0060	..	IOBRTCT	004D	..	IOBXTRA	....	!
IOBCC1	0003	01	IOBLINK	0004	..	IOBRTCT2	004F	..	UCSBBLOK	0058	.
IOBCC2	0003	02	IOBMID	004E	20	IOBRUNLD	0058	..	UCSBFOLD	0060	.
IOBCC3	0003	03	IOBMINI	0003	08	IOBRUN1	004E	02	UCSBLAST	00E0	.
IOBCLN	0039	40	IOBMISC	0014	..	IOBSENS	0038	02	UCSBLOAD	0068	.
IOBCLRIO	003B	08	IOBMISC2	0034	..	IOBSENSE	003A	80	UCSBLOCK	0060	.
IOBCOPY	0038	04	IOBMQDTO	0010	..	IOBSETP	0050	..	UCSBNAME	0070	.
IOBCP	0002	80	IOBMSG	003A	02	IOBSIMS	003A	01	UCSBSIZE	....	1
IOBCSW	0028	..	IOBMSIZE	....	3	IOBSIOEX	003B	04	UCSBSPAC	00D8	.
IOBCTRQ	0044	..	IOBOERR	003A	08	IOBSIOF	0038	20	UCSBVER	0078	.
IOBCUBSY	003C	..	IOBOFF	0043	..	IOBSIZE	....	A	UCSCCWS	0058	.
IOBCUE	003A	20	IOBPAG	0002	10	IOBSNSE	0050	..	UCSCCW0B	0078	.
IOBCYL	0010	..	IOBPATH	0042	..	IOBSNSIO	0039	08	UCSCCW04	0090	.
IOBDIAG	003B	01	IOBPATHF	0003	20	IOBSPEC	0038	..	UCSCCW06	0088	.
IOBDYNP	004E	04	IOBPGID	0061	..	IOBSPEC2	0039	..	UCSCCW07	0080	.
IOBEND	0050	..	IOBPMINT	003B	80	IOBSPEC3	003A	..	UCSCCW43	0070	.
IOBERCNT	004C	..	IOBPROC	0040	..	IOBSPEC4	003B	..	UCSFCBAD	0098	.
IOBERP	0002	04	IOBPST	003A	40	IOBSPEC5	004E	..	UCSFCBLD	0060	.
IOBFATAL	0003	80	IOBPVM	003A	04	IOBSPLT	0002	20	UCSFCBL1	0058	.
IOBFCNS	004E	40	IOBQDTO	0048	..	IOBSPM	003B	10	UCSFFLD	0068	.
IOBFH	0039	01	IOBQSTAT	004E	01	IOBSTAT	0003	..	UCSGATE	0058	.
IOBFLAG	0002	..	IOBRADD	0000	..	IOBTIO	0038	80	UCSLOAD	0068	.
IOBFLT	0003	40	IOBRCAW	0024	..	IOBTRPND	0038	01	UCSNAME	0098	.
IOBFPNT	0008	..	IOBRCNT	0012	..	IOBUASN	0050	..	UCSRDCCW	0088	.
IOBFUNCT	0060	..	IOBREL	0039	04	IOBUC	0039	10	UCSRDCC1	0080	.
IOBHIO	0038	40	IOBRELCU	0002	08	IOBUNREL	0039	20	UCSREGS	0050	.
IOBHVC	0002	01									

IOERBLOK: I/O ERROR INFORMATION BLOCK

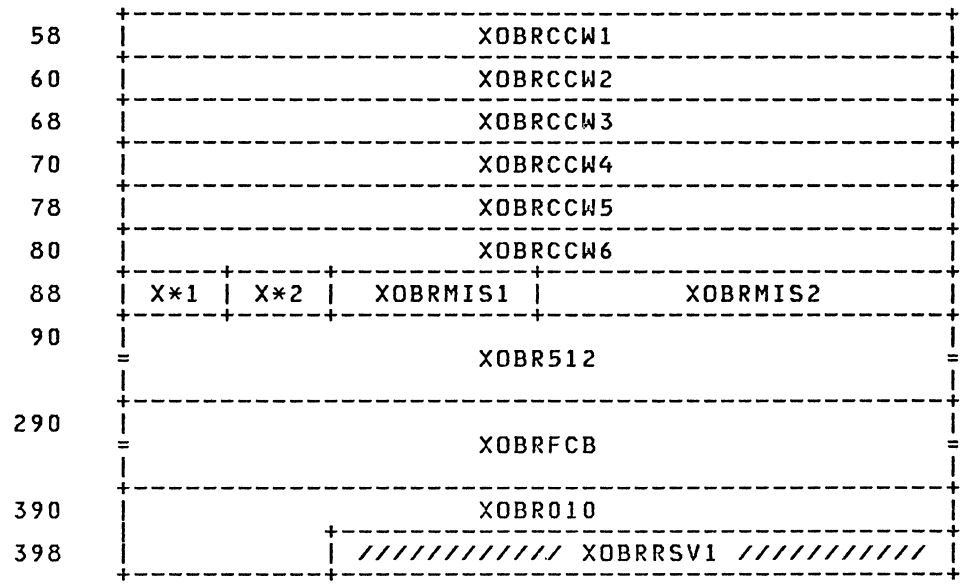
IOERBLOK contains information related to I/O and channel errors. This entails error retry, operator message information, and SDR (Statistical Data Recording) related to I/O equipment. There are three pointers to the IOERBLOK: RDEVIOER field of the RDEVBLOK, VDEVIOER field of the VDEVBLOK, and the IOBIOER field of IOBLOK. IOERBLOK is found in IOER copy.



IOERBLOK - CHANNEL CHECK REFLECTION EXTENTION



XOBR3211 - EXTENDED OUTBOARD RECORDING BLOCK



SIZE

IOER AND XOBR SIZE IN DOUBLEWORDS (XOBRSIZE) 74
XOBR3211 SIZE IN DOUBLEWORDS (XOBREXT) 69
IOERBLOK SIZE IN DOUBLEWORDS (IOERSIZE) B

Disp	Name	Len	Key	Description
0	IOERPNT	4		ADDRESS OF NEXT IOERBLOK
4	IOERLOC	4		ADDRESS OF CCW'S USED IN RECOVERY
8	IOERDW	2		CCW'S CONSTRUCT SIZE IN DOUBLEWORDS
A	IOERMSG	3		COMMUNICATIONS WITH ERP & MESSAGE WRITER
A	IOERNUM	1		MESSAGE NUMBER FOR MESSAGE ROUTINE
B	IOERIND3	1		INDICATORS FOR MESSAGE ROUTINE
	Values defined in IOERIND3			
80	IOERIGN			ALLOW IGNORE RESPONSE
40	IOERETRY			ALLOW RETRY RESPONSE
20	IOERCAN			ALLOW CANCEL RESPONSE
10	IOEREC			ERROR OCCURRED DURING RECOVERY ACTION
08	IOERDASD			HOME ADDRESS IS PRESENT
04	IOERDEC			OPERATOR DECISION IS NECESSARY
02	IOERINFO			INFORMATIONAL MESSAGE
01	IOERACT			OPERATOR ACTION IS REQUIRED
C	IOERIND4	1		INDICATORS
	Values defined in IOERIND4			

```
     80 IOERIGNR           OPERATOR RESPONDED IGNORE
     40 IOERSTRT           OPERATOR RESPONDED RETRY
     20 IOERCNCL           OPERATOR RESPONDED CANCEL

   D    IOERFLG1    1 I*1  FLAG BYTE FOR ERROR RECOVERY ROUTINES

     Values defined in IOERFLG1

     80 IOERPEND           PENDING DEVICE END INTERRUPT
     40 IOERCLN            TAPE CLEANING IN PROGRESS
     40 IOERERP            SPOOLING - ERROR ROUTINE IN CONTROL
     20 IOERFSR            FORWARD SPACE RECORD BEING EXECUTED
     20 IOERDEPD           SPOOLING - WAITING FOR DEVICE END
     10 IOERBSR            BACKSPACE RECORD BEING EXECUTED
     10 IOERDERD           SPOOLING - DEVICE END RECEIVED
     08 IOERERG            ERASE GAP COMMAND IN PROGRESS
     08 IOERXERP           SPOOLING - ERROR ROUTINE GETTING OBR DATA
     04 IOERORA            OPPOSITE RECOVERY ACTION IN PROGRESS
     02 IOERSUPP           CCW HAS SUPPRESS DATA BIT ON
     01 IOERVLD            READ OPPOSITE RECOVERY SUCCESSFUL

   E    IOERFLG2    1 I*2  SECOND FLAG BYTE FOR ERP USE

     Values defined in IOERFLG2

     80 IOERSTAT           STATISTICAL DATA BEING UNLOADED
     40 IOERHA             DASD HOME ADDRESS BEING READ
     20 IOERCAL            STANDALONE RECALIBRATE BEING EXECUTED
     10 IOERECF            ERROR CORRECTION FUNCTION
     10 IOERRBK            READ BACKWARD COMMAND
     08 IOERREW            TAPE REWIND BEING EXECUTED
     08 IOERDEF            EXTENDED CCW DATA PRESENT
     04 IOERCYLR           CYLINDER HAS BEEN RELOCATED IN SENSE BYTE
     04 IOERMSW            MESSAGE WRITER IS ACTIVE
     02 IOERCEMD           INTENSIVE RECORDING MODE
     01 IOERVOL1           DASD VOLID BEING READ

   F    IOERWRK     1 I*3  MISCELLANEOUS WORK BYTE

  10    IOERADR     8      HOME ADDRESS FOR DASD DEVICES

  18    IOERCSW     8      CSW ASSOCIATED WITH ERROR

  20    IOERCCW     8      SENSE CCW USED TO SENSE THE REAL DEVICE

  20    IOERVSER    6      VOLUME SERIAL FOR STATISTICAL DATA

  26    IOERLEN     2      NUMBER OF SENSE BYTES PRESENT

  28    IOEREXT     2      EXTENDED SENSE AREA SIZE IN DOUBLEWORDS

  2A    IOERCCH     2      SIZE OF I/O EXTENDED LOGOUT

  2C    IOERFLG3    1 I*4  THIRD FLAG BYTE FOR ERP USE

     Values defined in IOERFLG3

     80 IOERREAD           SDR READ OPERATION
     80 IOERFIXP           ORIGINAL I/O WAS FIXED PATH
     80 IOERQUE            QUEUE ERRBLOK FOR RECORDING
     40 IOERALTR           ALTERNATE TRACK RETRY IS IN PROGRESS
     20 IOERRDRO           READ HA, R0 IS IN PROGRESS
     10 IOERFLM            TEMP ERROR IN FORCED LOG MODE
     08 IOERNOLG           DO NOT LOG THIS ERROR CONDITION
     04 IOERTEMP           LOG THIS TEMPORARY ERROR
     02 IOERSPID           SET PATH GROUP ID IN PROGRESS
```

2D	IOERCPID	1	I*5	PROCESSOR ID OF PROCESSOR HAVING ERROR
2E	IOERFLG4	1	I*6	FOURTH FLAG BYTE FOR ERP USE
2F	IOERRSV1	1	I*7	RESERVED FOR IBM USE
30	IOERCPEX	4		PENDING I/O CPEXBLOK
34	IOERRSV2	4		RESERVED FOR IBM USE
38	IOERDATA	88		SENSE BYTES ASSOCIATED WITH ERROR
38	IOERECSW	4		ECSW INFORMATION FROM CHANNEL LOGOUT
3C	IOERCHAN	1		CHANNEL TYPE FLAG
58	IOEREND	0		LABEL FOR END OF IOERBLOK
58	IOERCEXT	0		START OF IOERBLOK EXTENSION
58	IOERCCRL	4		LENGTH OF CCHREC
58	XOBRCCW1	8		CCW USED TO READ OBR INFORMATION
5C	IOERCCRA	4		ADDRESS OF CCHREC
60	IOERCUID	4		CPU ID
60	XOBRCCW2	8		CCW USED TO READ OBR INFORMATION
64	IOERCMDL	2		CPU MACHINE MODEL NUMBER
66	IOERMCEL	2		MAXIMUM LENGTH OF MACHINE DEPENDENT MCEL
68	IOERUID	8		USERID
68	XOBRCCW3	8		CCW USED TO READ OBR INFORMATION
70	IOERFADD	16		ACTIVE I/O UNITS
70	XOBRCCW4	8		CCW USED TO READ OBR INFORMATION
78	XOBRCCW5	8		CCW USED TO READ OBR INFORMATION
80	IOERCCCW	8		FAILING CCW
80	XOBRCCW6	8		CCW USED TO READ OBR INFORMATION
88	IOERCCSW	8		FAILING CSW
88	XOBRFLAG	1	X*1	OUTBOARD RECORDING FLAG BYTE

Values defined in XOBRFLAG

80	XOBRT1	T1 BUFFER TYPE INFORMATION PRESENT
40	XOBRT2	T2 BUFFER TYPE INFORMATION PRESENT
20	XOBRT3	T3 BUFFER TYPE INFORMATION PRESENT

89	XOBRSTAT	1	X*2	OUTBOARD RECORDING STATUS BYTE

Values defined in XOBRSTAT

80	XOBRRT1	PERFORM ROUTINE 1 IN ERROR MODULE
40	XOBRRT2	PERFORM ROUTINE 2 IN ERROR MODULE
20	XOBRRT3	PERFORM ROUTINE 3 IN ERROR MODULE
10	XOBRRT4	PERFORM ROUTINE 4 IN ERROR MODULE
08	XOBRRT5	PERFORM ROUTINE 5 IN ERROR MODULE
04	XOBRRT6	PERFORM ROUTINE 6 IN ERROR MODULE
02	XOBRRT7	PERFORM ROUTINE 7 IN ERROR MODULE
01	XOBRRT8	PERFORM ROUTINE 8 IN ERROR MODULE

8A	XOBRMIS1	2		USED BY THE ERROR ROUTINE
8C	XOBRMIS2	4		USED BY THE ERROR ROUTINE
90	IOERZCSW	4		FAILING ECSW
90	XOBR512	512		SPACE FOR USCB DATA
94	IOERDTYP	4		CP DEVICE TYPE
98	IOERCHID	1	I*8	CHANNEL IDENTIFICATION

Values defined in IOERCHID

08	IOERS80	SELECTOR CHANNEL (2880)
07	IOERB80	STANDALONE BLOCK MPX (2880)
06	IOER2870	STANDALONE MPX (2870)
05	IOER2860	STANDALONE SELECTOR (2860)

99	IOERCCUA	3		ACTUAL FAILING DEVICE ADDRESS
9C	IOERMCUA	2		ADDRESS FROM MACHINE LOCATION HEX'BA'
9E	IOERLOGL	2		LENGTH OF CHANNEL LOGOUT
A0	IOERCLOG	0		CHANNEL LOGOUT AREA (VARIABLE LENGTH)
A0	IOERLG80	112		2880 CHANNEL
A0	IOERLG70	24		2870 CHANNEL
A0	IOERLG60	24		2860 CHANNEL
A0	IOERADDR	4		UNIT ADDR STORED BY INTEGRATED CHANNEL
A0	IOERLG33	640		3033 CHANNEL
A0	IOERLG45	96		145 INTEGRATED CHANNEL
A0	IOERLG35	24		135 INTEGRATED CHANNEL
290	XOBRFCB	256		SPACE FOR FCB DATA
290	XOBR150	150		SPACE FOR PLB CHECK DATA
390	XOBR010	10		SPACE FOR FIRST TEN ERROR CHARACTERS
39A	XOBRRSV1	6		RESERVED FOR IBM USE

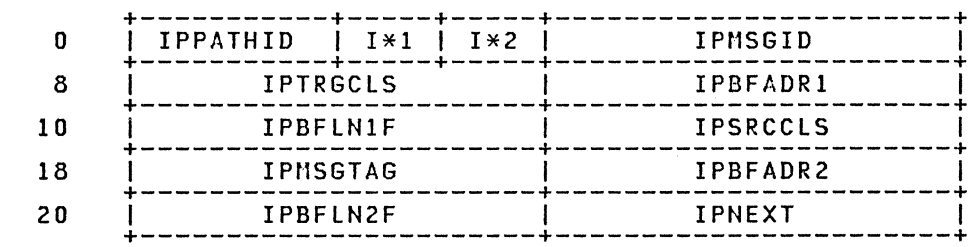
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IOERACT	000B	01	IOERDEPD	000D	20	IOERLG80	00A0	..	IOERXERP	000D	08
IOERADDR	00A0	..	IOERDERD	000D	10	IOERLOC	0004	..	IOERZCSW	0090	..
IOERADR	0010	..	IOERDTYP	0094	..	IOERLOGL	009E	..	IOER2860	0098	05
IOERALTR	002C	40	IOERDW	0008	..	IOERMCEL	0066	..	IOER2870	0098	06
IOERBSR	000D	10	IOEREC	000B	10	IOERMCUA	009C	..	XOBRCCW1	0058	..
IOERB80	0098	07	IOERECF	000E	10	IOERMSG	000A	..	XOBRCCW2	0060	..
IOERCAL	000E	20	IOERECSW	0038	..	IOERMSW	000E	04	XOBRCCW3	0068	..
IOERCAN	000B	20	IOEREND	0058	..	IOERNOLG	002C	08	XOBRCCW4	0070	..
IOERCCCW	0080	..	IOERERG	000D	08	IOERNUM	000A	..	XOBRCCW5	0078	..
IOERCCH	002A	..	IOERERP	000D	40	IOERORA	000D	04	XOBRCCW6	0080	..
IOERCCRA	005C	..	IOERETRY	000B	40	IOERPEND	000D	80	XOBREXT	....	69
IOERCCRL	0058	..	IOEREXT	0028	..	IOERPNT	0000	..	XOBRFCB	0290	..
IOERCCSW	0088	..	IOERFADD	0070	..	IOERQUE	002C	80	XOBRFLAG	0088	..
IOERCCUA	0099	..	IOERFIXP	002C	80	IOERRBK	000E	10	XOBRMIS1	008A	..
IOERCCW	0020	..	IOERFLG1	000D	..	IOERRDRO	002C	20	XOBRMIS2	008C	..
IOERCEMD	000E	02	IOERFLG2	000E	..	IOERREAD	002C	80	XOBRRT1	0089	80
IOERCEXT	0058	..	IOERFLG3	002C	..	IOERREW	000E	08	XOBRRT2	0089	40
IOERCHAN	003C	..	IOERFLG4	002E	..	IOERRSV1	002F	..	XOBRRT3	0089	20
IOERCHID	0098	..	IOERFLM	002C	10	IOERRSV2	0034	..	XOBRRT4	0089	10
IOERCLN	000D	40	IOERFSR	000D	20	IOERSIZE	....	B	XOBRRT5	0089	08
IOERCLOG	00A0	..	IOERHA	000E	40	IOERSNSZ	....	20	XOBRRT6	0089	04
IOERCMDL	0064	..	IOERIGN	000B	80	IOERSPID	002C	02	XOBRRT7	0089	02
IOERCNCL	000C	20	IOERIGNR	000C	80	IOERSTAT	000E	80	XOBRRT8	0089	01
IOERCPEX	0030	..	IOERIND3	000B	..	IOERSTRT	000C	40	XOBRSIZE	....	74
IOERCPID	002D	..	IOERIND4	000C	..	IOERSUPP	000D	02	XOBRSTAT	0089	..
IOERCSW	0018	..	IOERINFO	000B	02	IOERS80	0098	08	XOBRT1	0088	80
IOERCUID	0060	..	IOERLEN	0026	..	IOERTEMP	002C	04	XOBRT2	0088	40
IOERCYLR	000E	04	IOERLG33	00A0	..	IOERUID	0068	..	XOBRT3	0088	20
IOERDASD	000B	08	IOERLG35	00A0	..	IOERVLD	000D	01	XOBR010	0390	..
IOERDATA	0038	..	IOERLG45	00A0	..	IOERVOL1	000E	01	XOBR150	0290	..
IOERDEC	000B	04	IOERLG60	00A0	..	IOERVSER	0020	..	XOBR512	0090	..
IOERDEF	000E	08	IOERLG70	00A0	..	IOERWRK	000F	..			

IPARML: IUCV PARAMETER LIST

IPARML is used by the Inter-User Communication's Vehicle (IUCV) communicator. The table is built when IUCV functions. It contains the user supplied data needed by the IUCV functions. IPARML is found in IPARML copy.



SIZE

IPARML SIZE IN DOUBLE WORDS (IPSIZE) 5

Disp	Name	Len	Key	Description
0	IPPATHID	2		PATHID
0	IPMASK	1		ENABLE MASK

Values defined in IPMASK

80	IPSNDN	ENABLE FOR NON-PRIORITY MESSAGES
80	IPCLPC	ENABLE FOR PENDING CONNECTION
40	IPSNDP	ENABLE FOR PRIORITY MESSAGES
40	IPCLCC	ENABLE FOR COMPLETE CONNECTION
20	IPRPYN	ENABLE FOR NON-PRIORITY REPLIES
20	IPCLPS	ENABLE FOR SEVER INTERRUPT
10	IPRPYP	ENABLE FOR PRIORITY REPLIES
10	IPCLPQ	ENABLE FOR QUIESCE INTERRUPT
08	IPCTRL	ENABLE FOR IUCV CONTROL INTERRUPTS
08	IPCLPR	ENABLE FOR RESUME INTERRUPT

0	IPCMASK	1		ENABLE CONTROL MASK
2	IPFLAGS1	1	I*1	FLAGS BYTE

Values defined in IPFLAGS1

80	IPALL	QUIESCE, RESUME, SEVER ALL
80	IPRMDATA	MESSAGE IS IN PARAMETER LIST
40	IPQUSCE	CONNECT IN QUIESCE MODE
40	IPBUFLST	BUFFER LIST OPTION
20	IPPRTY	PRIORITY MESSAGE OR REPLY
10	IPNORPY	ONE WAY PROTOCOL
08	IPANSLST	ANSWER LIST OPTION
04	IPFGMID	MESSAGE ID SPECIFIED
02	IPFGPID	PATH ID SPECIFIED
01	IPFGMCL	MESSAGE CLASS SPECIFIED

3	IPRCODE	1	I*2	RETURN CODE
3	IPTYPE	1		EXTERNAL INTERRUPT CODE

```
   4    IPMSGID     4       MESSAGE IDENTIFICATION

   4    IPMSGLIM    2       MESSAGE LIMIT

   6    IPFCNCD     1       FUNCTION CODE

   8    IPTRGCLS    4       TARGET CLASS

   8    IPVMID      8       TARGET VIRTUAL MACHINE ID

   8    IPAUDIT     3       AUDIT TRAIL

   8    IPAUDIT1    1       AUDIT TRAIL BYTE 1

    Values defined in IPAUDIT1

    80 IPADRPLE             REPLY TOO LONG FOR BUFFER
    40 IPADSNPX             PROTECTION EXCEPTION ON SEND BUFFER
    20 IPADSNAX             ADDRESSING EXCEPTION ON SEND BUFFER
    10 IPADANPX             PROTECTION EXCEPTION ON ANSWER BUFFER
    08 IPADANAX             ADDRESSING EXCEPTION ON ANSWER BUFFER
    04 IPADRJCT             MESSAGE WAS REJECTED
    02 IPADPRMD             REPLY SENT IN PARAMETER LIST

   9    IPAUDIT2    1       AUDIT TRAIL BYTE 2

    Values defined in IPAUDIT2

    80 IPADRCPX             PROTECTION EXCEPTION ON RECEIVE BUFFER
    40 IPADRCAX             ADDRESSING EXCEPTION ON RECEIVE BUFFER
    20 IPADRPPX             PROTECTION EXCEPTION ON REPLY BUFFER
    10 IPADRPAX             ADDRESSING EXCEPTION ON REPLY BUFFER
    08 IPADSVRD             PATH WAS SEVERED
    04 IPADRLST             INVALID RECEIVE/REPLY LIST

   A    IPAUDIT3    1       AUDIT TRAIL BYTE 3

    Values defined in IPAUDIT3

    80 IPADBLEN             BAD LENGTH IN SEND BUFFER LIST
    40 IPADALEN             BAD LENGTH IN SEND ANSWER LIST
    20 IPADBTOT             INVALID TOTAL SEND BUFFER LENGTH
    10 IPADATOT             INVALID TOTAL SEND ANSWER LENGTH
    09 IPTYPMNP             EXT INT TYPE - INCOMING MESSAGE
    08 IPTYPMP              EXT INT TYPE - INCOMING PRIORITY MSG
    07 IPTYPRNP             EXT INT TYPE - INCOMING REPLY
    06 IPTYPRP              EXT INT TYPE - INCOMING PRIORITY REPLY
    05 IPTYPRS              EXT INT TYPE - RESUMED CONNECTION
    04 IPTYPQS              EXT INT TYPE - QUIESCED CONNECTION
    03 IPTYPSV              EXT INT TYPE - SEVERED CONNECTION
    02 IPTYPCC              EXT INT TYPE - CONNECTION COMPLETE
    01 IPTYPPC              EXT INT TYPE - PENDING CONNECTION

   C    IPRMMSG     8       MESSAGE DATA IN PARAMETER LIST

   C    IPRMMSG1    4       FIRST FULLWORD OF PRMLIST DATA

   C    IPBFADR1    4       ADDRESS OF BUFFER

  10    IPRMMSG2    4       SECOND FULLWORD OF PRMLIST DATA

  10    IPBFLN1F    4       FULLWORD LENGTH OF IPBFADR1

  10    IPUSER     16       USER DATA
```

12	IPBFLN1	2	HALFWORD LENGTH OF IPBFADR1
14	IPSRCCLS	4	SOURCE CLASS
18	IPMSGTAG	4	MESSAGE TAG
1C	IPBFADR2	4	ADDRESS OF BUFFER 2
20	IPBFLN2F	4	FULLWORD LENGTH OF IPBFADR2
22	IPBFLN2	2	HALFWORD LENGTH OF IPBFADR2
24	IPNEXT	4	ADDRESS OF NEXT PENDING EXT INT
24	IPNQFLG	1	FLAGS TO CONTROL ENQ DEQ

Values defined in IPNQFLG

80	IPNQNO	NO ENQUEUE FOR THIS TRANSACTION
40	IPDQEND	PERFORM DEQUEUE
20	IPDQNO	NO DEQUEUE FOR THIS TRANSACTION

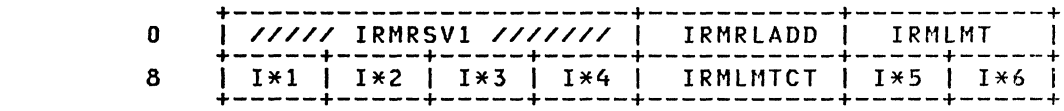
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IPADALEN	000A	40	IPAUDIT1	0008	..	IPFGMCL	0002	01	IPRPYN	0000	20
IPADANAX	0008	08	IPAUDIT2	0009	..	IPFGMID	0002	04	IPRPYP	0000	10
IPADANPX	0008	10	IPAUDIT3	000A	..	IPFGPID	0002	02	IPSIZE	....	5
IPADATOT	000A	10	IPBFADR1	000C	..	IPFLAGS1	0002	..	IPSNDN	0000	80
IPADBLEN	000A	80	IPBFADR2	001C	..	IPMASK	0000	..	IPSNDP	0000	40
IPADBTOT	000A	20	IPBFLN1	0012	..	IPMSGID	0004	..	IPSRCCLS	0014	..
IPADPRMD	0008	02	IPBFLN1F	0010	..	IPMSGLIM	0004	..	IPTRGCLS	0008	..
IPADRCAX	0009	40	IPBFLN2	0022	..	IPMSGTAG	0018	..	IPTYPCC	000A	02
IPADRCPX	0009	80	IPBFLN2F	0020	..	IPNEXT	0024	..	IPTYPE	0003	..
IPADRJCT	0008	04	IPBUFLST	0002	40	IPNORPY	0002	10	IPTYPMNP	000A	09
IPADRLST	0009	04	IPCLCC	0000	40	IPNQFLG	0024	..	IPTYPMP	000A	08
IPADRPAX	0009	10	IPCLPC	0000	80	IPNQNO	0024	80	IPTYPPC	000A	01
IPADRPLE	0008	80	IPCLPQ	0000	10	IPPATHID	0000	..	IPTYPQS	000A	04
IPADRPPX	0009	20	IPCLPR	0000	08	IPPRTY	0002	20	IPTYPRNP	000A	07
IPADSNAX	0008	20	IPCLPS	0000	20	IPQUSCE	0002	40	IPTYPRP	000A	06
IPADSNPX	0008	40	IPCMASK	0000	..	IPRCODE	0003	..	IPTYPRS	000A	05
IPADSVRD	0009	08	IPCTRL	0000	08	IPRMDATA	0002	80	IPTYPSV	000A	03
IPALL	0002	80	IPDQEND	0024	40	IPRMMSG	000C	..	IPUSER	0010	..
IPANSLST	0002	08	IPDQNO	0024	20	IPRMMSG1	000C	..	IPVMID	0008	..
IPAUDIT	0008	..	IPFCNCD	0006	..	IPRMMSG2	0010	..			

IRMBLOK: INTENSIVE ERROR RECORDING MODE BLOCK

IRMBLOK provides the information necessary for the implementation of intensive recording mode via CP SET RECORD command. Intensive recording mode allows the recording of unit check errors from a specified device whose data matches the values selected. The DMKIOEIR field in DMKIOE points to IRMBLOK. IRMBLOK is found in IOER copy.



SIZE

IRMBLOK SIZE IN DOUBLEWORDS (IRMSIZE) 2

Disp	Name	Len	Key	Description
0	IRMRSV1	4		RESERVED FOR IBM USE
4	IRMRLADD	2		DEVICE ADDRESS TO BE MONITORED
6	IRMLMT	2		LIMIT COUNT - RECORD EVERY 'NTH' ERROR
8	IRMBYT1	1	I*1	FIRST SENSE BYTE SPECIFIED
9	IRMBIT1	1	I*2	SENSE BIT WITHIN SENSE BYTE
A	IRMBYT2	1	I*3	SECOND SENSE BYTE SPECIFIED
B	IRMBIT2	1	I*4	SENSE BIT WITHIN SENSE BYTE
C	IRMLMTCT	2		SUMMARY COUNT FOR LIMIT DETECTION
E	IRMMAXCT	1	I*5	COUNT OF RECORDINGS FOR THIS REQUEST
F	IRMFLG	1	I*6	FLAG BYTE

Values defined in IRMFLG

80	IRMAND	'AND' CONDITION SPECIFIED
40	IRMOR	'OR' CONDITION SPECIFIED

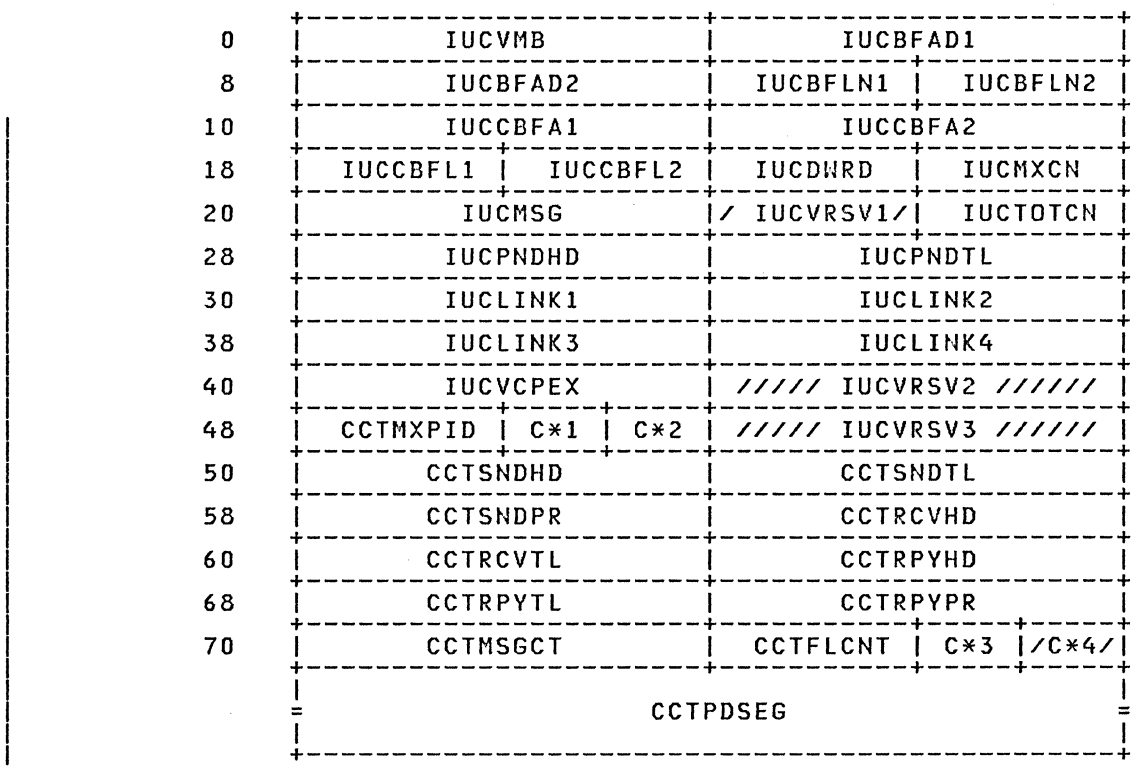
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IRMAND	000F	80	IRMBYT2	000A	..	IRMLMTCT	000C	..	IRMRLADD	0004	..
IRMBIT1	0009	..	IRMFLG	000F	..	IRMMAXCT	000E	..	IRMRSV1	0000	..
IRMBIT2	000B	..	IRMLMT	0006	..	IRMOR	000F	40	IRMSIZE	....	2
IRMBYT1	0008	..									

IUCVBLOK: INTER-USER COMMUNICATION VEHICLE CONTROL BLOCK

IUCVBLOK is used to describe the communicator in the virtual machine to the Inter-User Communication Vehicle (IUCV). It is built when the communicator invokes the Declare Buffer function and remains active until released by the Retrieve Buffer function. It contains information about the user's external interruption buffer, directory specifications, current and pending control external interruptions. The pointer to IUCVBLOK is the VMIUCV field in VMBLOK. IUCVBLOK is found in IUCVBLOK copy.



SIZE

IUCVBLOK SIZE IN DOUBLEWORDS (IUCSIZE) 10

Disp	Name	Len	Key	Description
0	IUCVMB	4		ADDRESS OF VMBLOK
4	IUCBFAD1	4		FIRST PAGE OF EXTERNAL BUFFER
8	IUCBFAD2	4		SECOND PAGE OF EXTERNAL BUFFER
C	IUCBFLN1	2		MACHINE LENGTH OF BUFFER - PAGE 1
E	IUCBFLN2	2		MACHINE LENGTH OF BUFFER - PAGE 2

10	IUCCBFA1	4		FIRST PAGE OF EXTERNAL CONTROL BUFFER
14	IUCCBFA2	4		SECOND PAGE OF EXTERNAL CONTROL BUFFER
18	IUCCBFL1	2		MACHINE LENGTH OF CONTROL BUFFER - PAGE 1
1A	IUCCBFL2	2		MACHINE LENGTH OF CONTROL BUFFER - PAGE 2
1C	IUCDWRD	2		TOTAL DOUBLEWORDS IN IUCVBLOK
1E	IUCMXCN	2		MAXIMUM CONNECTIONS FROM THE DIRECTORY
20	IUCMSG	4		PERMANENT MSGBLOK ADDRESS
24	IUCVRSV1	2		RESERVED FOR IBM USE
26	IUCTOTCN	2		TOTAL NUMBER OF CONNECTIONS
28	IUCPNDHD	4		HEAD OF Q FOR PENDING CONTROL INTS
2C	IUCPNDTL	4		TAIL OF QUEUE FOR PENDING CONTROL INTS
30	IUCLINK1	4		INTERNAL LINKAGE SAVE AREA
34	IUCLINK2	4		INTERNAL LINKAGE SAVE AREA
38	IUCLINK3	4		INTERNAL LINKAGE SAVE AREA
3C	IUCLINK4	4		INTERNAL LINKAGE SAVE AREA
40	IUCVCPEX	4		ADDRESS OF SYNCHRONIZING CPEXBLOK
44	IUCVRSV2	4		RESERVED FOR IBM USE
48	CCTMXPID	2		MAXIMUM PATH ID FOR THIS CCT
48	CCTMXPDS	1		MAXIMUM PDSEG NUMBER
49	CCTMXPDE	1		MAXIMUM PDENT NUMBER IN LAST PDSEG
4A	CCTFLAG1	1	C*1	IUCV INTERRUPTS ENABLED

Values defined in CCTFLAG1

80	CCTSNDN	IUCV NON-PRIORITY MESSAGES ENABLED
40	CCTSNDP	IUCV PRIORITY MESSAGES ENABLED
20	CCTRPYN	IUCV NON-PRIORITY REPLIES ENABLED
10	CCTRPYP	IUCV PRIORITY REPLIES ENABLED
08	CCTICTRL	IUCV CONTROL INTERRUPT ENABLED

4B	CCTFLAG2	1	C*2	IUCV INTERRUPTS PENDING

Values defined in CCTFLAG2

80	CCTPNDSN	IUCV NON-PRIORITY MESSAGES PENDING
40	CCTPNDSP	IUCV PRIORITY MESSAGES PENDING
20	CCTPNDRN	IUCV NON-PRIORITY REPLIES PENDING
10	CCTPNDRP	IUCV PRIORITY REPLIES PENDING
08	CCTPNDCT	IUCV CONTROL INTERRUPT PENDING

4C	IUCVRSV3	4		RESERVED FOR IBM USE
50	CCTSNDHD	4		SEND QUEUE HEAD
54	CCTSNDTL	4		SEND QUEUE TAIL

58	CCTSNDPR	4		SEND PRIORITY QUEUE TAIL
5C	CCTRCVHD	4		RECEIVE QUEUE HEAD
60	CCTRCVTL	4		RECEIVE QUEUE TAIL
64	CCTRPYHD	4		REPLY QUEUE HEAD
68	CCTRPYTL	4		REPLY QUEUE TAIL
6C	CCTRPYPR	4		REPLY PRIORITY QUEUE TAIL
70	CCTMSGCT	4		TOTAL OF MESSAGES SENT ON ALL PATHS
74	CCTFLCNT	2		TOTAL MESSAGES SENT TO QDROP OFF USERS
76	CCTFLAG3	1	C*3	CONTROL INTERRUPTS ENABLED

Values defined in CCTFLAG3

80	CCTCLPC	PENDING CONNECTONS ENABLED
40	CCTCLCC	COMPLETE CONNECTIONS ENABLED
20	CCTCLPS	SEVER INTERRUPTS ENABLED
10	CCTCLPQ	QUIESCE INTERRUPTS ENABLED
08	CCTCLPR	RESUME INTERRUPTS ENABLED

77	IUCVRSV4		C*4	RESERVED FOR IBM USE
78	CCTPDSEG	0		N (1<=N<=256) PDSEG POINTERS
7B	CCTPDSLO	1		BYTE FOR INVALID PDSEG TEST

CROSS REFERENCE
(Name Disp Value)

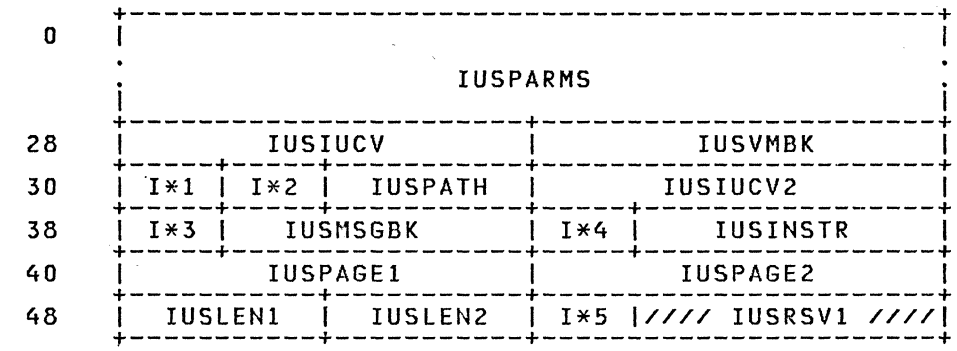
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CCMASK	....	CF	CCTRPYHD	0064	..	IUCCBFA2	0014	..	RCAPPC	....	1F
CCTCLCC	0076	40	CCTRPYN	004A	20	IUCCBFL1	0018	..	RCBADDIR	....	F
CCTCLPC	0076	80	CCTRPYP	004A	10	IUCCBFL2	001A	..	RCBADFCN	....	11
CCTCLPQ	0076	10	CCTRPYPR	006C	..	IUCDWRD	001C	..	RCBADLIM	....	12
CCTCLPR	0076	08	CCTRPYTL	0068	..	IUCLINK1	0030	..	RCBUFBND	....	1A
CCTCLPS	0076	20	CCTSNDHD	0050	..	IUCLINK2	0034	..	RCCONSRV	....	1D
CCTFLAG1	004A	..	CCTSNDN	004A	80	IUCLINK3	0038	..	RCEXTLEN	....	27
CCTFLAG2	004B	..	CCTSNDP	004A	40	IUCLINK4	003C	..	RCHASBFR	....	13
CCTFLAG3	0076	..	CCTSNDPR	0058	..	IUCMSG	0020	..	RCIINVLN	....	2A
CCTFLCNT	0074	..	CCTSNDTL	0054	..	IUCMXCN	001E	..	RCINVCNF	....	23
CCTICTRL	004A	08	IETYPCC	....	2	IUCPNDHD	0028	..	RCINVCON	....	20
CCTMSGCT	0070	..	IETYPMNP	....	9	IUCPNDTL	002C	..	RCINVLUN	....	28
CCTMXPDE	0049	..	IETYPMP	....	8	IUCSIZE	....	10	RCINVMOD	....	29
CCTMXPDS	0048	..	IETYPPC	....	1	IUCTOTCN	0026	..	RCINVREC	....	22
CCTMXPID	0048	..	IETYPQS	....	4	IUCVCODE	0000	..	RCINVSCD	....	2E
CCTPDSEG	0078	..	IETYPRNP	....	7	IUCVCPEX	0040	..	RCINVSEV	....	24
CCTPDSLO	007B	..	IETYPRP	....	6	IUCVMASK	0000	..	RCINVSND	....	21
CCTPNDCT	004B	08	IETYPRS	....	5	IUCVMB	0000	..	RCINVSRV	....	10
CCTPNDRN	004B	20	IETYPSV	....	3	IUCVRSV1	0024	..	RCMSGCT	....	3
CCTPNDRP	004B	10	IUCBFAD1	0004	..	IUCVRSV2	0044	..	RCMSGLEN	....	A
CCTPNDSN	004B	80	IUCBFAD2	0008	..	IUCVRSV3	004C	..	RCNEGLEN	....	17
CCTPNDSP	004B	40	IUCBFLN1	000C	..	IUCVRSV4	0077	..	RCNLOG	....	B
CCTRCVHD	005C	..	IUCBFLN2	000E	..	RCADDRCK	....	7	RCNODATA	....	8
CCTRCVTL	0060	..	IUCCBFA1	0010	..	RCANSBND	....	1B	RCNONAPP	....	1E

RCNOPATH	1	RCPROTCK	6	RCSYCLVL	25	RC2MANY	D
RCNOPRMD	15	RCPTHSVD	14	RCTINVLN	2B	RC2MANYT	E
RCNOPRTY	4	RCPURGED	9	RCTOTLEN	18	RECQMSG	2
RCNOSEND	2	RCRECVSH	5	RCTRUNC	2C	RPYQMSG	3
RCNTRGIU	C	RCSNDLST	16	RCTTRUNC	2D	SENDQMSG	1
RCPRMLST	19	RCSNDOP	26				

IUSAVE: IUCV SAVE CONTROL AREA

IUSAVE is used as a save area for information about an Inter-User Communications Vehicle (IUCV) request. The communicator's parameter lists are also saved so that the original parameter list can be updated upon the completion of the function. The communicator's CCT address, IUCVBLOK address, and trace table entry addresses are also in the block to be used by the IUCV functions. The IUSAVE block is created upon invocation of any IUCV function that requires a parameter list and is destroyed upon completion of that function. IUSAVE is found in IUCVBLOK copy.



SIZE

IUSAVE SIZE IN DOUBLEWORDS (IUSSIZE) 0A

Disp	Name	Len	Key	Description
0	IUSPARMS	40		PARAMETER LIST
28	IUSIUCV	4		IUCVBLOK ADDRESS
2C	IUSVMBK	4		SAVED VMBLOK FROM CP ENTRY
30	IUSCCODE	1	I*1	CP CONDITION CODE
31	IUSTRACE	15		TRACE TABLE ENTRY
31	IUSFCODE	1	I*2	TRACE SUBTYPE
32	IUSMASK	1		MASK FIELD FROM SETMASK
32	IUSCC	1		CONDITON CODE FROM TESTMSG
32	IUSIPSIZ	2		PARMLIST SIZE FROM QUERY
32	IUSPATH	2		PATH ID
34	IUSIUCV2	4		IUCVBLOK ADDRESS
38	IUSRCODE	1	I*3	RETURN CODE
38	IUSMSGBK	4		MSGBLOK ADDRESS

38	IUSBUFF	4		DECLARE BUFFER ADDRESS
3A	IUSMXCN	2		MAXIMUM CONNECT FROM QUERY
3C	IUSFLAGS	1	I*4	IUCV INPUT FLAGS
3C	IUSINSTR	4		IUCV INSTRUCTION ADDRESS
40	IUSPAGE1	4		VIRTUAL ADDRESS OF PAGE ONE
44	IUSPAGE2	4		VIRTUAL ADDRESS OF PAGE TWO
48	IUSLEN1	2		MACHINE LENGTH IN IUSPAGE1
4A	IUSLEN2	2		MACHINE LENGTH IN IUSPAGE2
4C	IUSFLAG2	1		IUCV INPUT FLAGS

Values defined in IUSFLAG2

80	IUSCPENT	ENTRY FROM CP
40	IUSCRSV1	RESERVED FOR IBM USE
20	IUSCRSV2	RESERVED FOR IBM USE
10	IUSCRSV3	RESERVED FOR IBM USE
08	IUSCRSV4	RESERVED FOR IBM USE
04	IUSCRSV5	RESERVED FOR IBM USE
02	IUSCRSV6	RESERVED FOR IBM USE
01	IUSCRSV7	RESERVED FOR IBM USE

4D	IUSRSV1	3	RESERVED FOR IBM USE

RETURN CODES DEFINED FOR IUCV GENERAL USAGE

01	RCNOPATH	INVALID PATH ID
02	RCNOSEND	PATH QUIESCED - NO SENDS ALLOWED
03	RCMSGCT	MESSAGE LIMIT EXCEEDED
04	RCNOPRTY	PRIORITY MESSAGES NOT ALLOWED ON PATH
05	RCRECVSH	BUFFER TOO SHORT FOR MESSAGE
06	RCPROTCK	FETCH PROTECTION EXCEPTION
07	RCADDRCK	ADDRESSING EXCEPTION
08	RCNODATA	MSGID FOUND, BUT CLASS/PATH INVALID
09	RCPURGED	MESSAGE HAS BEEN PURGED
0A	RCMSGLEN	MESSAGE LENGTH NEGATIVE
0B	RCNLOG	TARGET IS NOT LOGGED ON
0C	RCNTRGIU	TARGET HAS NOT DECLARED A BUFFER
0D	RC2MANY	INVOKER MAXIMUM CONNECTIONS EXCEEDED
0E	RC2MANYT	TARGET MAXIMUM CONNECTIONS EXCEEDED
0F	RCBADDIR	NOT AUTHORIZED TO CONNECT TO TARGET
10	RCINVSRV	INVALID CP SYSTEM SERVICE NAME
11	RCBADFCN	INVALID FUNCTION CODE
12	RCBADLIM	INVALID MSGLIMIT
13	RCHASBFR	ALREADY HAS DECLARED A BUFFER
14	RCPTHSVD	PATH HAS BEEN SEVERED
15	RCNOPRMD	PARAMETER LIST MESSAGE NOT ALLOWED
16	RCSNDLST	SEND LIST INVALID
17	RCNEGLEN	NEGATIVE LENGTH IN LIST
18	RCTOTLEN	INVALID TOTAL LIST LENGTH
19	RCPRMLST	PRMMSG AND BUFLIST/ANSLIST NOT ALLOWED
1A	RCBUFBND	BUFFER LIST NOT D-WORD ALIGNED
1B	RCANSBND	ANSWER LIST NOT D-WORD ALIGNED

EQUATES DEFINED FOR IUCV GENERAL USAGE

CF	CCMASK	VIRTUAL CONDITION CODE MASK
4000	IUCVCODE	IUCV EXTERNAL INT TYPE CODE
02	IUCVMASK	CR0 MASK BIT

EQUATES USED BY DMKIUEQU

09	IETYPMNP	EXT INT TYPE - INCOMING MESSAGE
08	IETYPMP	EXT INT TYPE - INCOMING PRIORITY MSG
07	IETYPRNP	EXT INT TYPE - INCOMING REPLY
06	IETYPRP	EXT INT TYPE - INCOMING PRIORITY REPLY
05	IETYPRS	EXT INT TYPE - RESUMED CONNECTION
04	IETYPQS	EXT INT TYPE - QUIESCED CONNECTION
03	IETYPSV	EXT INT TYPE - SEVERED CONNECTION
02	IETYPCC	EXT INT TYPE - CONNECTION COMPLETE
01	IETYPPC	EXT INT TYPE - PENDING CONNECTION
03	RPYQMSG	MESGLOK ON REPLY QUEUE
02	RECQMSG	MSGBLOK ON RECEIVE QUEUE
01	SENDQMSG	MSGBLOK ON SEND QUEUE

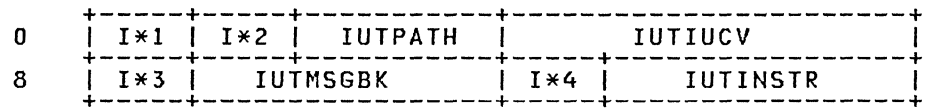
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CCMASK	004C	CF	IUSINSTR	003C		IUSPATH	0032		RCNODATA	004A	08
IETYPCC	004C	02	IUSIPSIZ	0032		IUSRCODE	0038		RCNOPATH	004A	01
IETYPMNP	004C	09	IUSCRSV1	004C	40	IUSRSV1	004D		RCNOPRMD	004A	15
IETYPMP	004C	08	IUSCRSV2	004C	20	IUSSIZE	0000	0A	RCNOPRTY	004A	04
IETYPPC	004C	01	IUSCRSV3	004C	10	IUSTRACE	0031		RCNOSEND	004A	02
IETYPQS	004C	04	IUSCRSV4	004C	08	IUSVMBK	002C		RCNTRGIU	004A	0C
IETYPRNP	004C	07	IUSCRSV5	004C	04	RCADDRCK	004A	07	RCPRMLST	004A	19
IETYPRP	004C	06	IUSCRSV6	004C	02	RCANSBND	004A	1B	RCPROTCK	004A	06
IETYPRS	004C	05	IUSCRSV7	004C	01	RCBADDIR	004A	0F	RCPTHSVD	004A	14
IETYPSV	004C	03	IUSIUCV	0028		RCBADFCN	004A	11	RCPURGED	004A	09
IUCVCODE	004C	00	IUSIUCV2	0034		RCBADLIM	004A	12	RCRECVSH	004A	05
IUCVMASK	004C	02	IUSLEN1	0048		RCBUFBND	004A	1A	RCSNDLST	004A	16
IUSBUFF	0038		IUSLEN2	004A		RCHASBFR	004A	13	RCTOTLEN	004A	18
IUSCC	0032		IUSMASK	0032		RCINVSRV	004A	10	RC2MANY	004A	0D
IUSCCODE	0030		IUSMSGBK	0038		RCMSGCT	004A	03	RC2MANYT	004A	0E
IUSCPENT	004C	80	IUSMXCN	003A		RCMSGLEN	004A	0A	RECQMSG	004A	02
IUSFCODE	0031		IUSPAGE1	0040		RCNEGLEN	004A	17	RPYQMSG	004A	03
IUSFLAGS	003C		IUSPAGE2	0044		RCNLOG	004A	0B	SENDQMSG	004A	01
IUSFLAG2	004C		IUSPARMS	0000							

IUTRACE: IUCV TRACE TABLE ENTRIES

IUTRACE is used to identify the fields in FORMBLOK in the trace table entries created by the Inter-User Communications Vehicle (IUCV). IUTRACE is found in IUCVBLOK copy.



SIZE

IUTRACE SIZE IN DOUBLEWORDS (IUTSIZE) 02

Disp	Name	Len	Key	Description
000	IUTYPE	001	I*1	TRACE TYPE
001	IUTSUBTY	001	I*2	TRACE SUBTYPE
002	IUTPATH	002		PATH ID
004	IUTIUCV	004		IUCVBLOK ADDRESS
008	IUTOPTS	001	I*3	IUCV OPTIONS SPECIFIED
008	IUTMASK	001		MASK FIELD FROM SETMASK
008	IUTMSGBK	004		MSGBLOK ADDRESS
008	IUTBUFF	004		DECLARE BUFFER ADDRESS
00C	IUTFLAGS	001	I*4	FLAG BYTE

Values defined in IUTFLAGS

80	IUTCPE	CP ENTRY - REAL ADDR IN IUTINTR
40	IUTINVD	TRACE ENTRY INVALID

00C	IUTINSTR	004		IUCV INSTRUCTION ADDRESS

RETURN CODES DEFINED FOR IUCV GENERAL USAGE

01	RCNOPATH	INVALID PATH ID
02	RCNOSEND	PATH QUIESCED - NO SENDS ALLOWED
03	RCMSGCT	MESSAGE LIMIT EXCEEDED
04	RCNOPRTY	PRIORITY MESSAGES NOT ALLOWED ON PATH
05	RCRECVSH	BUFFER TOO SHORT FOR MESSAGE
06	RCPROTCK	FETCH PROTECTION EXCEPTION
07	RCADDRCK	ADDRESSING EXCEPTION
08	RCNODATA	MSGID FOUND, BUT CLASS/PATH INVALID
09	RCPURGED	MESSAGE HAS BEEN PURGED
0A	RCMSGLEN	MESSAGE LENGTH NEGITIVE
0B	RCNLOG	TARGET IS NOT LOGGED ON

```
   0C RCNTRGIU          TARGET HAS NOT DECLARED A BUFFER
   0D RC2MANY           INVOKER MAX CONNECTIONS EXCEEDED
   0E RC2MANYT          TARGET MAX CONNECTIONS EXCEEDED
   0F RCBADDIR          NOT AUTHORIZED TO CONNECT TO TARGET
   10 RCINVSRV          INVALID CP SYSTEM SERVICE NAME
   11 RCBADFCN          INVALID FUNCTION CODE
   12 RCBADLIM          INVALID MSGLIMIT
   13 RCHASBFR          ALREADY HAS DECLARED A BUFFER
   14 RCPTHSVD          PATH HAS BEEN SEVERED
```

EQUATES DEFINED FOR IUCV GENERAL USAGE

```
   CF CCMASK            VIRTUAL CONDITION CODE MASK
 4000 IUCVCODE          IUCV EXTERNAL INT TYPE CODE
 0002 IUCVMASK          CRO MASK BIT
   10 TRCIST            IUCV TRACE ENT - SETMASK SUBTYPE
   0F TRCISV            IUCV TRACE ENT - SEVER SUBTYPE
   0E TRCIRS            IUCV TRACE ENT - RESUME SUBTYPE
   0D TRCIQS            IUCV TRACE ENT - QUIESCE SUBTYPE
   0C TRCIDB            IUCV TRACE ENT - DCLBFR SUBTYPE
   0B TRCICT            IUCV TRACE ENT - CONNECT SUBTYPE
   0A TRCIAC            IUCV TRACE ENT - ACCEPT SUBTYPE
   09 TRCIPR            IUCV TRACE ENT - PURGE SUBTYPE
   08 TRCIRJ            IUCV TRACE ENT - REJECT SUBTYPE
   07 TRCITC            IUCV TRACE ENT - TESTCMPL SUBTYPE
   06 TRCIRP            IUCV TRACE ENT - REPLY SUBTYPE
   05 TRCIRC            IUCV TRACE ENT - RECEIVE SUBTYPE
   04 TRCISN            IUCV TRACE ENT - SEND SUBTYPE
   03 TRCIDS            IUCV TRACE ENT - DESCRIBE SUBTYPE
```

EQUATES USED BY DMKIUEQU

```
   09 IETYPMNP          EXT INT TYPE - INCOMING MESSAGE
   08 IETYPMP           EXT INT TYPE - INCOMING PRIORITY MSG
   07 IETYPRNP          EXT INT TYPE - INCOMING REPLY
   06 IETYPRP           EXT INT TYPE - INCOMING PRIORITY REPLY
   05 IETYPRS           EXT INT TYPE - RESUMED CONNECTION
   04 IETYPQS           EXT INT TYPE - QUIESCED CONNECTION
   03 RPYQMSG           MESGLOK ON REPLY QUEUE
   03 IETYPSV           EXT INT TYPE - SEVERED CONNECTION
   02 RECQMSG           MSGBLOK ON RECEIVE QUEUE
   02 IETYPCC           EXT INT TYPE - CONNECTION COMPLETE
   01 SENDQMSG          MSGBLOK ON SEND QUEUE
   01 IETYPPC           EXT INT TYPE - PENDING CONNECTION
```

CROSS REFERENCE
(Name Disp Value)

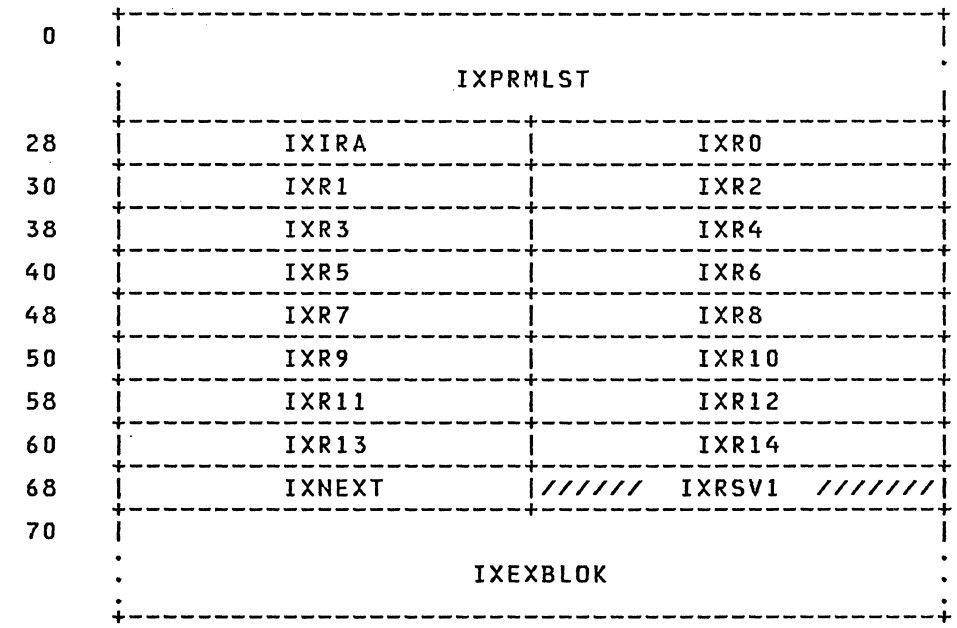
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
CCMASK   000C CF    IUTCPE   000C 80    RCBADFCN 000C 11    RCPTHSVD 000C 14
IETYPCC  000C 02    IUTFLAGS 000C       RCBADLIM 000C 12    RCPURGED 000C 09
IETYPMNP 000C 09    IUTINSTR 000C       RCHASBFR 000C 13    RCRECVSH 000C 05
IETYPMP  000C 08    IUTINVD  000C 40    RCINVSRV 000C 10    RC2MANY  000C 0D
IETYPPC  000C 01    IUTIUCV  0004       RCMSGCT  000C 03    RC2MANYT 000C 0E
IETYPQS  000C 04    IUTMASK  0008       RCMSGLEN 000C 0A    RECQMSG  000C 02
IETYPRNP 000C 07    IUTMSGBK 0008       RCNLOG   000C 0B    RPYQMSG  000C 03
IETYPRP  000C 06    IUTOPTS  0008       RCNODATA 000C 08    SENDQMSG 000C 01
IETYPRS  000C 05    IUTPATH  0002       RCNOPATH 000C 01    TRCIAC   000C 0A
IETYPSV  000C 03    IUTSUBTY 0001       RCNOPRTY 000C 04    TRCICT   000C 0B
IUCVCODE 000C 00    IUTYPE   0000       RCNOSEND 000C 02    TRCIDB   000C 0C
IUCVMASK 000C 02    RCADDRCK 000C 07    RCNTRGIU 000C 0C    TRCIDS   000C 03
IUTBUFF  0008       RCBADDIR 000C 0F    RCPROTCK 000C 06    TRCIPR   000C 09
```

TRCIQS	000C 0D	TRCIRP	000C 06	TRCISN	000C 04	TRCISV	000C 0F
TRCIRC	000C 05	TRCIRS	000C 0E	TRCIST	000C 10	TRCITC	000C 07
TRCIRJ	000C 08						

IXBLOK: EXTERNAL BUFFER AREA FOR IPARML

IXBLOK is an extension of IPARML that is used by the Inter-User Communicator. IXBLOK provides an external interruption buffer. There are two pointers to IXBLOK: the PENDCONN field in PSA and the WEIXBLOK field in WEIBLOK. IPARML and its extension, IXBLOK, are found in IUCVBLOK copy.



SIZE

IXBLOK SIZE IN DOUBLEWORDS (IXSIZE) 13

0	IXPRMLST	40	PARAMETER LIST AREA
28	IXIRA	4	INTERRUPT RETURN ADDRESS
2C	IXREGS	0	REGISTER SAVE AREA
2C	IXR0	4	REGISTER 0
30	IXR1	4	REGISTER 1
34	IXR2	4	REGISTER 2
38	IXR3	4	REGISTER 3
3C	IXR4	4	REGISTER 4
40	IXR5	4	REGISTER 5

44	IXR6	4	REGISTER 6
48	IXR7	4	REGISTER 7
4C	IXR8	4	REGISTER 8
50	IXR9	4	REGISTER 9
54	IXR10	4	REGISTER 10
58	IXR11	4	REGISTER 11
5C	IXR12	4	REGISTER 12
60	IXR13	4	REGISTER 13
64	IXR14	4	REGISTER 14
68	IXNEXT	4	ADDRESS OF NEXT IXBLOK IN PENDING CHAIN
6C	IXRSV1	4	RESERVED FOR IBM USE
70	IXEXBLOK	40	EXTERNAL INTERRUPT BUFFER AREA

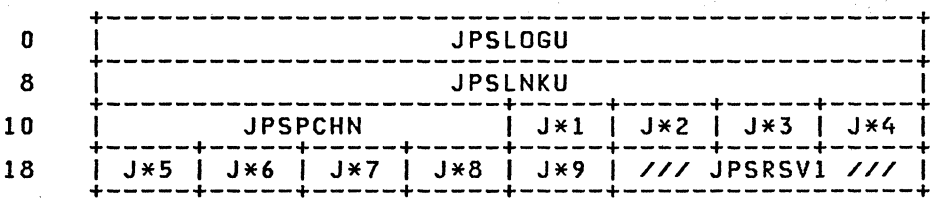
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IXEXBLOK	0070	IXR0	002C	IXR14	0064	IXR6	0044	
IXIRA	0028	IXR1	0030	IXR2	0034	IXR7	0048	
IXNEXT	0068	IXR10	0054	IXR3	0038	IXR8	004C	
IXPRMLST	0000	IXR11	0058	IXR4	003C	IXR9	0050	
IXREGS	002C	IXR12	005C	IXR5	0040	IXSIZE	0000	13
IXRSV1	006C	IXR13	0060					

JPSCBLOK: JOURNALING AND PASSWORD SUPPRESSION CONTROL BLOCK

JPSCBLOK is a part of DMKSYS. It is referenced via the EXTERNAL symbol DMKSYSJR. It is used to control the LOGON/AUTOLOG/LINK Journaling and Password-on-command-line Suppression functions. The DMKSYSJR field in DMKSYS is the beginning address of JPSCBLOK. JPSCBLOK is found in JPSCBLOK macro.



Disp	Name	Len	Key	Description
0	JPSLOGU	8		USERID FOR LOGGING ON THRESHOLD MESSAGES
8	JPSLNKU	8		USERID FOR LINK THRESHOLD MESSAGES
10	JPSPCHN	4		ANCHOR FOR PWDIBLOKs
14	JPSFLAGS	1	J*1	CONTROL FLAGS
	Values defined in JPSFLAGS			
	80 LOGONJRL			LOGON/AUTOLOG JOURNALING ON
	40 LINKJRL			SUCCESSFUL LINK JOURNALING ON
	20 LINKJRLI			INVALID PASSWORD LINK JOURNALING ON
	10 JRLSQOK			SET/QUERY JOURNAL ENABLED
	08 MASKLOG			SUPPRESS LOGON/AUTOLOG PASSWORD
	04 MASKLINK			SUPPRESS LINK PASSWORD
15	JPSLOGAR	1	J*2	LOGON/AUTOLOG ACCOUNTING RECORD THRESHOLD
16	JPSLOGMS	1	J*3	LOGON/AUTOLOG MESSAGE THRESHOLD
17	JPSLOGDS	1	J*4	LOGON/AUTOLOG DISABLE THRESHOLD
18	JPSLNKAR	1	J*5	LINK ACCOUNTING RECORD THRESHOLD
19	JPSLNKMS	1	J*6	LINK MESSAGE THRESHOLD
1A	JPSLNKDS	1	J*7	LINK DISABLE THRESHOLD
1B	JPSPSWNO	1	J*8	INVALID PSWD ATTEMPT THRESHOLD
1C	JPSPSWTM	1	J*9	INVALID PSWD LOCKOUT TIME (MINS)
1D	JPSRSV1	3		RESERVED FOR IBM USE

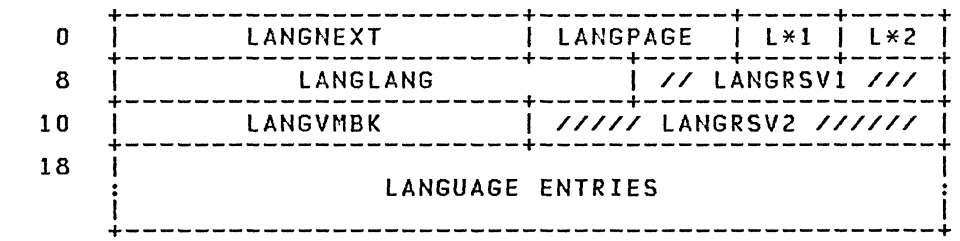
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

JPSFLAGS	0014	..	JPSLOGAR	0015	..	JPSPSWNO	001B	..	LINKJRLI	0014	20
JPSLNKAR	0018	..	JPSLOGDS	0017	..	JPSPSWTM	001C	..	LOGONJRL	0014	80
JPSLNKDS	001A	..	JPSLOGMS	0016	..	JRLSQOK	0014	10	MASKLINK	0014	04
JPSLNKMS	0019	..	JPSLOGU	0000	..	LINKJRL	0014	40	MASKLOG	0014	08
JPSLNKU	0008	..	JPSPCHN	0010	..						

LANGBLOK: LANGUAGE BLOCK

LANGBLOK contains information related to a particular CP message repository. One LANGBLOK exists for each CP message respository available on the system. The PSALANG field in the PSA points to the LANGBLOK chain. The LANGBLOK for the installation default language is always the first one on the chain. The VMLANG field of the VMBLOK points to the LANGBLOK associated with the particular virtual machine. LANGBLOK is found in LANGBLOK copy.



SIZE

SIZE OF LANGBLOK IN DOUBLEWORDS (LANGSIZE) 3

Disp	Name	Len	Key	Description
0	LANGNEXT	4		ADDRESS OF NEXT LANGBLOK
4	LANGPAGE	2		TOTAL NUMBER OF REPOSITORY PAGES
6	LANGFLAG	1	L*1	LANGUAGE FLAG BYTE
	Values defined in LANGFLAG			
	80 LANGDBCS			DOUBLE-BYTE CHARACTER SET
	40 LANGVMB			SYSTEM VMBLOK USED FOR PAGING
7	LANGLOCK	1	L*2	FORCE SERIAL LANGBLOK CREATION
8	LANGLANG	5		LANGUAGE IDENTIFIER
C	LANGRSV1	3		RESERVED FOR IBM USE
10	LANGVMBK	4		LANGUAGE VMBLOK ADDRESS
14	LANGRSV2	4		RESERVED FOR IBM USE
18	LANGENT	0		VARIABLE NUMBER OF ENTRIES

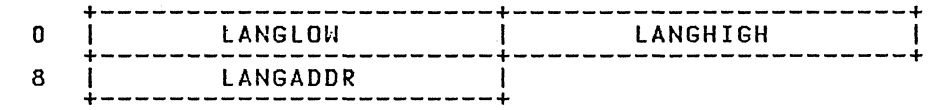
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

LANGDBCS	0006	80	LANGLANG	0008	..	LANGPAGE	0004	..	LANGSIZE	....	
LANGENT	0018	..	LANGLOCK	0007	..	LANGRSV1	000C	..	LANGVMB	0006	4
LANGFLAG	0006	..	LANGNEXT	0000	..	LANGRSV2	0014	..	LANGVMBK	0010	.

LANGNTRY: LANGUAGE BLOCK TABLE ENTRY

LANGNTRY describes an entry in a LANGBLOK. The LANGNTRY indicates the low and high range of message ids on a particular 4K page of the message repository. There is one LANGNTRY for each page of message text in the CP message repository. LANGNTRY is found in LANGBLOK copy.



SIZE

SIZE OF LANGNTRY IN BYTES (LANGNTSZ) C

Disp	Name	Len	Key	Description
0	LANGLOW	4		LOWEST MESSAGE ID IN PAGE
4	LANGHIGH	4		HIGHEST MESSAGE ID IN PAGE
8	LANGADDR	4		PAGE ADDRESS OF MESSAGE RANGE

CROSS REFERENCE

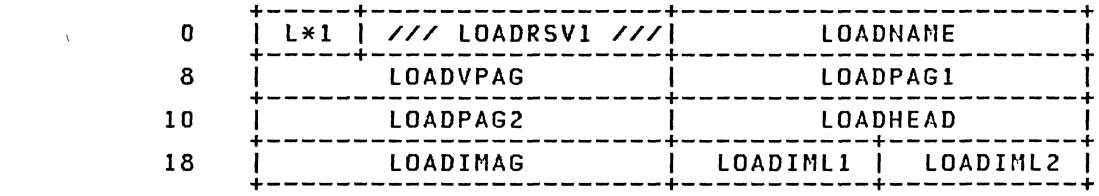
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

LANGADDR 0008 .. LANGHIGH 0004 .. LANGLOW 0000 .. LANGNTSZ C

LOADPARM: LOAD PARAMETER BLOCK

LOADPARM is used to pass information between modules DMKCSB and DMKCSC. LOADPARM is found in LDBLOK copy.



SIZE

LOADPARM SIZE IN BYTES (LOADSIZE) 20
LOADPARM SIZE IN DOUBLEWORDS (LOADSZDW) 4

Disp	Name	Len	Key	Description
0	LOADFLG1	1	L*1	FLAG BYTE
	Values defined in LOADFLG1			
	80 LOADUCS			UCS LOAD WANTED
	40 LOADHCPY			HEADER IS COPY FROM FREE STORAGE
	20 LOAD2CCW			IMAGE IS IN TWO PIECES FOR LOAD
	08 LOADSPAC			SPACE TO TOP OF PAGE ONLY
1	LOADRSV1	3		RESERVED FOR IBM USE
4	LOADNAME	4		NAME ID OF IMAGE
8	LOADVPAG	4		VIRTUAL ADDRESS OF CURRENT PAGE OF MODULE
C	LOADPAG1	4		REAL ADDRESS OF FIRST PAGE OF MODULE
10	LOADPAG2	4		REAL ADDRESS OF SECOND PAGE OF MODULE
14	LOADHEAD	4		REAL ADDRESS OF IMAGE HEADER
18	LOADIMAG	4		REAL ADDRESS OF IMAGE
1C	LOADIML1	2		LENGTH OF IMAGE IN FIRST PAGE
1E	LOADIML2	2		LENGTH OF IMAGE IN SECOND PAGE

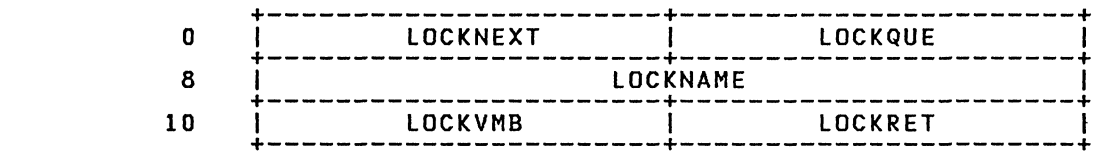
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
LOADPAG2 0010  ..   LOADSIZE ....  20   LOADSZDW ....   4   LOADVPAG 0008  ..
LOADRSV1 0001  ..   LOADSPAC 0000  08   LOADUCS  0000  80   LOAD2CCW 0000  20
```

LOCKBLOK: USERID LOCK CONTROL BLOCK

LOCKBLOK is used to synchronize execution for sections of nonreenterable code. Locked users are returned to the CPEXBLOK queue when the function being executed completes or no longer requires nonreenterable resources. LOCKBLOKs are queued off DMKSYSLB. LOCKBLOK is found in UDIRECT copy.



SIZE

LOCKBLOK SIZE IN DOUBLEWORDS (LOCKSIZE) 3

Disp	Name	Len	Key	Description
0	LOCKNEXT	4		POINTER TO THE NEXT LOCKBLOK
4	LOCKQUE	4		POINTER TO CPEXBLOK QUEUE
8	LOCKNAME	8		THE NAME LOCKED
10	LOCKVMB	4		CREATOR'S VMBLOK ADDRESS
14	LOCKRET	4		CREATOR'S RETURN ADDRESS

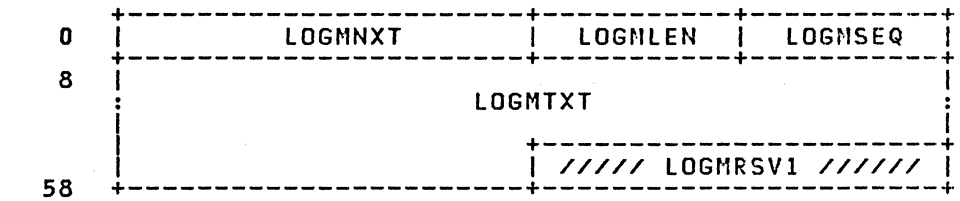
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
LOCKNAME 0008  ..   LOCKQUE  0004  ..   LOCKSIZE ....   3   LOCKVMB  0010  ..
LOCKNEXT 0000  ..   LOCKRET  0014  ..
```

LOGMBLOK: LOG MESSAGE CONTROL BLOCK

LOGMBLOK contains the information specified on the SET LOGMSG command. LOGMBLOK is built by DMKCFU and referenced by DMKCQY and DMKLOH. A LOGMBLOK is built for each line in the line log message. LOGMBLOK is chained from the DMKSYSLG field in DMKSYS. LOGMBLOK is found in LOGMBLOK copy.



SIZE

LOGMBLOK SIZE IN BYTES (LOGMSIZB) 58
LOGMBLOK SIZE IN DOUBLEWORDS (LOGMSIZD) B

Disp	Name	Len	Key	Description
0	LOGMNXT	4		LOGMSG CHAIN POINTER
4	LOGMLEN	2		LOGMSG LENGTH
6	LOGMSEQ	2		LOGMSG SEQUENCE NUMBER
8	LOGMTXT	76		LOGMSG TEXT
54	LOGMRSV1	4		RESERVED FOR IBM USE

CROSS REFERENCE

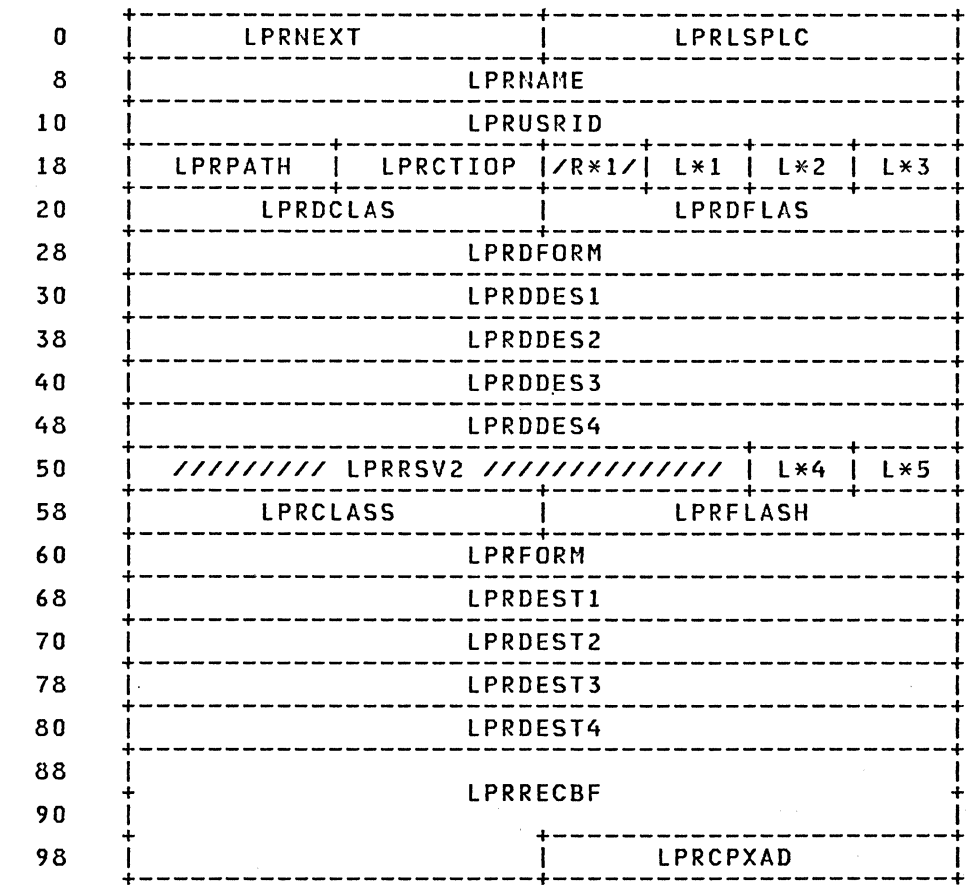
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

LOGMLEN	0004	..	LOGMRSV1	0054	..	LOGMSIZB	....	58	LOGMTXT	0008	..
LOGMNXT	0000	..	LOGMSEQ	0006	..	LOGMSIZD	....	B			

LPRTBLOK: LOGICAL PRINTER BLOCK

LPRTBLOK is created when a logical printer issues ab IUVC connect to the *SPL system service. The block contains the logical printer identification, status, and selection criteria. LPRTBLOK is found in LBLOKS copy.



SIZE

LENGTH IN BYTES OF SELECTION DATA (LPRLSELD) 32
LPRTBLOK SIZE IN DOUBLEWORDS (LPRTSIZE) 14

Disp	Name	Len	Key	Description
0	LPRNEXT	4		ADDRESS OF NEXT LPRTBLOK
4	LPRLSPLC	4		ADDRESS OF LSPLCTL
8	LPRNAME	8		LOGICAL PRINTER NAME

10	LPRUSRID	8		VIRTUAL MACHINE USER ID
18	LPRPATH	2		IUCV PATH ID
1A	LPRCTIOP	2		ACTION PENDING COUNTER
1C	LPRRSV1	1	R*1	RESERVED FOR IBM USE
1D	LPRFLG3	1	L*1	LOGICAL DEVICE STATUS

Values defined in LPRFLG3

80	LPRSESID	SELECT BY SPOOL ID
40	LPRIDLE	DEVICE IDLE
10	LPRSEVER	SEVER OCCURRED

1E	LPRFLG1D	1	L*2	DEFAULT DEVICE CHARACTERISTICS

Values defined in LPRFLG1D

80	LPRCHGE	CHANGE DEFAULT SELECTION CRITERIA
40	LPRCNVRT	FILES SELECTED WILL BE CONVERTED
20	LPRDEFLT	DEFAULT SELECTION CRITERIA SET

1F	LPRFLG2D	1	L*3	DEFAULT SELECTION CRITERIA

Values defined in LPRFLG2D

80	LPR5AD	SELECT - FILE HAS X'5A' CCWS
40	LPRN5AD	SELECT - FILE HAS NO X'5A' CCWS
20	LPRCNVD	SELECT - FILE CONVERTED
10	LPRNCNVD	SELECT - FILE NOT CONVERTED
08	LPRNO38D	SELECT - NO 3800 LOAD CCWS
04	LPRBE38D	SELECT - 3800 LOAD CCWS AT BEGINNING
02	LPRAN38D	SELECT - 3800 LOAD CCWS ANYWHERE

20	LPRDCLAS	4		DEFAULT CLASSES FOR LOGICAL PRINTER
24	LPRDFLAS	4		DEFAULT FLASH FOR LOGICAL PRINTER
28	LPRDFORM	8		DEFAULT FORM FOR LOGICAL PRINTER
30	LPRDDES1	8		DESTINATION 1 FOR LOGICAL PRINTER
38	LPRDDES2	8		DESTINATION 2 FOR LOGICAL PRINTER
40	LPRDDES3	8		DESTINATION 3 FOR LOGICAL PRINTER
48	LPRDDES4	8		DESTINATION 4 FOR LOGICAL PRINTER
50	LPRRSV2	6		RESERVED FOR IBM USE
56	LPRSELDA	0		ADDRESS TO RECEIVE SELECTION DATA
56	LPRFLG1	1	L*4	DEVICE CHARACTERISTICS
57	LPRFLG2	1	L*5	SELECTION CRITERIA
58	LPRCLASS	4		SELECTION CLASS
5C	LPRFLASH	4		SELECTION FLASH
60	LPRFORM	8		SELECTION FORM
68	LPRDEST1	8		SELECTION DESTINATION 1

70	LPRDEST2	8	SELECTION DESTINATION 2
78	LPRDEST3	8	SELECTION DESTINATION 3
80	LPRDEST4	8	SELECTION DESTINATION 4
88	LPRRECBF	20	RECEIVE BUFFER
9C	LPRCPXAD	4	CPEXBLOK ADDRESS

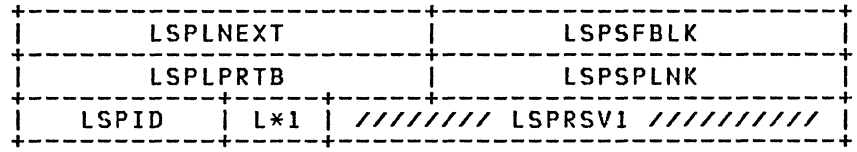
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

LPRAN38D	001F	02	LPRDDES3	0040	..	LPRFLG1D	001E	..	LPRN038D	001F	08
LPRBE38D	001F	04	LPRDDES4	0048	..	LPRFLG2	0057	..	LPRN5AD	001F	40
LPRCHGE	001E	80	LPRDEFLT	001E	20	LPRFLG2D	001F	..	LPRPATH	0018	..
LPRCLASS	0058	..	LPRDEST1	0068	..	LPRFLG3	001D	..	LPRRECBF	0088	..
LPRCNVD	001F	20	LPRDEST2	0070	..	LPRFORM	0060	..	LPRSELDA	0056	..
LPRCNVRT	001E	40	LPRDEST3	0078	..	LPRIDLE	001D	40	LPRSESID	001D	80
LPRCPXAD	009C	..	LPRDEST4	0080	..	LPRLSELD	....	32	LPRSEVER	001D	10
LPRCTIOP	001A	..	LPRDFLAS	0024	..	LPRLSPLC	0004	..	LPRTSIZE	....	14
LPRDCLAS	0020	..	LPRDFORM	0028	..	LPRNAME	0008	..	LPRUSRID	0010	..
LPRDDES1	0030	..	LPRFLASH	005C	..	LPRNCNVD	001F	10	LPR5AD	001F	80
LPRDDES2	0038	..	LPRFLG1	0056	..	LPRNEXT	0000	..			

LSPLCTL: LOGICAL SPOOL CONTROL BLOCK

LSPLCTL contains information that the spool file being processed by a logical printer. The LSPLCTL field of the LPRTBLOK points to the first LSPLCTL. LSPLCTLis found in LBLOKS copy.



SIZE

LSPLCTL SIZE IN DOUBLEWORDS (LSPLSIZE) 3

Disp	Name	Len	Key	Description
0	LSPLNEXT	4		ADDRESS OF NEXT LSPLCTL
4	LSPSFBLK	4		ADDRESS OF SFBLOK FOR FILE
8	LSPLPRTB	4		ADDRESS OF LPRTBLOK
C	LSPSPLNK	4		DASD ADDRESS OF SPLINK
10	LSPID	2		SPOOL ID
12	LSPLFLG1	1	L*1	FLAG BYTE

Values defined in LSPLFLG1

80	LSPIOPND	I/O PENDING
40	LSPCONVT	FILE BEING CONVERTED
20	LSPPURGE	PURGE PENDING
10	LSPPRINT	FILE BEING PRINTED

13	LSPRSV1	5		RESERVED FOR IBM USE

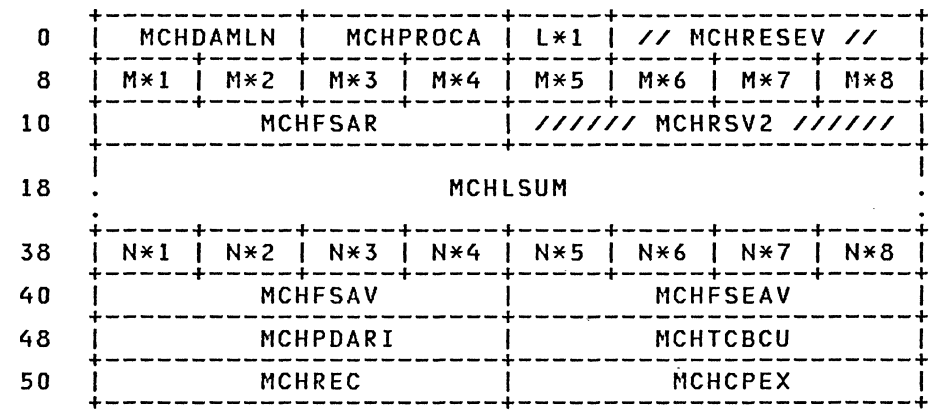
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

LSPCONVT	0012	40	LSPLFLG1	0012	..	LSPLSIZE	....	3	LSPSFBLK	0004	..
LSPID	0010	..	LSPLNEXT	0000	..	LSPPRINT	0012	10	LSPSPLNK	000C	..
LSPIOPND	0012	80	LSPLPRTB	0008	..	LSPPURGE	0012	20			

MCHAREA: MACHINE CHECK SAVE AREA

MCHAREA provides CP with statistical data that relates to malfunctions of the real processor, to its buffers, to processor storage for damage assessment, and to the recovery of CP. The AMCHAREA field in PSA points to MCHAREA. MCHAREA is found in MCHAREA copy.



SIZE

LENGTH OF DAMAGE ASSESSMENT AREA IN BYTES (MCHLEN1) 58
MCHAREA LENGTH IN BYTES (MCHLEN) 4B

Disp	Name	Len	Key	Description
0	MCHDAMGE	0		START OF DAMAGE ASSESSMENT AREA
0	MCHDAMLN	2		LENGTH OF DAMAGE ASSESSMENT AREA
2	MCHPROCA	2		PROCESSOR ADDRESS

```
   4    MCHMODEL    1 L*1   PROCESSOR MODEL NUMBER

 Equates for processor models

  X'00' NOMODEL              NO SUPPORT FOR PROCESSOR
  X'24' MOD3090              ID NUMBER FOR THE 3090 PROCESSOR
  X'24' MOD9190              ID NUMBER FOR THE 9190 PROCESSOR
  X'20' MOD4381              ID NUMBER FOR THE 4381 PROCESSOR
  X'1C' MOD3081              ID NUMBER FOR THE 3081 PROCESSOR
  X'1C' MOD3083              ID NUMBER FOR THE 3083 PROCESSOR
  X'1C' MOD9081              ID NUMBER FOR THE 9081 PROCESSOR
  X'1C' MOD9083              ID NUMBER FOR THE 9083 PROCESSOR
  X'1C' MOD3084              ID NUMBER FOR THE 3084 PROCESSOR
  X'18' MOD4321              ID NUMBER FOR THE 4321 PROCESSOR
  X'18' MOD4331              ID NUMBER FOR THE 4331 PROCESSOR
  X'18' MOD4341              ID NUMBER FOR THE 4341 PROCESSOR
  X'18' MOD4361              ID NUMBER FOR THE 4361 PROCESSOR
  X'14' MOD3031              ID NUMBER FOR THE 3031 PROCESSOR
  X'14' MOD3032              ID NUMBER FOR THE 3032 PROCESSOR
  X'14' MOD3033              ID NUMBER FOR THE 3033 PROCESSOR
  X'10' MODEL165             ID NUMBER FOR THE 165  PROCESSOR
  X'10' MODEL168             ID NUMBER FOR THE 168  PROCESSOR
  X'0C' MODEL155             ID NUMBER FOR THE 155  PROCESSOR
  X'0C' MODEL158             ID NUMBER FOR THE 158  PROCESSOR
  X'08' MODEL145             ID NUMBER FOR THE 145  PROCESSOR
  X'08' MODEL148             ID NUMBER FOR THE 148  PROCESSOR
  X'04' MODEL135             ID NUMBER FOR THE 135  PROCESSOR
  X'04' MODEL138             ID NUMBER FOR THE 138  PROCESSOR

   5    MCHRESEV    3       RESERVED FOR IBM USE

   8    MCHDAMFL    0       START OF DAMAGE ASSESSMENT DATA

   8    MCHFLAG0    1 M*1   SYSTEM STATUS

    Values defined in MCHFLAG0

    80 MCH0HDWR             HARDWARE RECOVERY
    40 MCH0SFTR             SOFTWARE RECOVERY
    20 MCH0USAD             USER ABORTED
    10 MCH1GERR             CHANNEL GROUP ERROR OCCURRED
    08 MCH0TERM             OPERATING SYSTEM TERMINATION
    04 MCH0QUIT             QUIET MODE IN EFFECT

   9    MCHFLAG1    1 M*2   DAMAGE AREA

    Values defined in MCHFLAG1

    80 MCH1MAIN             MAIN STORAGE
    40 MCH1BUFF             BUFFER
    20 MCH1COST             CONTROL STORAGE
    08 MCH1PROC             PROCESSOR
    04 MCH1IOTO             I/O INSTRUCTION OR INTERRUPTION TIMEOUT
    02 MCH1TODC             TIME-OF-DAY-CLOCK
    01 MCH1SYSD             SYSTEM DAMAGE

   A    MCHFLAG2    1 M*3   DAMAGE AREA

   B    MCHFLAG3    1 M*4   ERROR TYPE

    Values defined in MCHFLAG3
```

```
     80 MCH3INTE           INTERMITTENT
     40 MCH3SOLD           SOLID
     20 MCH3DATA           DATA
     10 MCH3PROT           PROTECT
     08 MCH3BCST           BROADCAST
     06 MCH3HARD           RECOVERY NOT OK
     04 MCH3SOFT           RECOVERY OK;  RESOURCES OK
     02 MCH3DGRD           RECOVERY OK;  LOST A RESOURCE
     01 MCH3PASS           ERROR REFLECTED TO (PMA) GUEST

   C   MCHFLAG4    1 M*5   RMS ACTION DATA

     Values defined in MCHFLAG4

     80 MCH4TOLO           TIME OUT LOOP
     40 MCH4REPA           REPAIR
     20 MCH4STRE           STORAGE RECONFIGURE
     10 MCH4BURE           BUFFER RECONFIGURE

   D   MCHFLAG5    1 M*6   RMS INFORMATION STATUS

     Values defined in MCHFLAG5

     80 MCH5INLG           INVALID LOGOUT
     40 MCH5INMC           INVALID MACHINE CHECK INTERRUPT CODE
     20 MCH5IFSA           INVALID FAILING STORAGE ADDRESS

   E   MCHFLAG6    1 M*7   RMS WAIT STATE SUFFIX

   F   MCHFLAG7    1 M*8   DMKMCH STATUS

     Values defined in MCHFLAG7

     80 MCH7SMCR           SECOND MACHINE CHECK RECURSION
     40 MCH7VRTM           TERMINATE THE VIRTUAL USER
     20 MCH7SYST           TERMINATE THE SYSTEM
     10 MCH7OPSW           MACHINE CHECK OLD PSW IN PROBLEM STATE
     08 MCH7VEQR           TERMINATE THE VIRTUAL EQUAL REAL USER
     04 MCH7SUP            DMKMCH UNDER THE GLOBAL SYSTEM LOCK
     02 MCH7CHTM           TERMINATE FAILING CHANNEL

  10   MCHFSAR     4       FAILING LOCATION REAL ADDRESS

  14   MCHRSV2     4       RESERVED FOR IBM USE

  18   MCHLSUM    32       HISTORY

  38   MCHPDAR     0       START OF DATA ERROR RECORD

  38   MCHPDAR0    1 N*1   ACTION TAKEN

  39   MCHPDAR1    1 N*2   FAILURE TYPE

    Values defined in MCHPDAR1

    80 MCHP1SDE            SOLID STORAGE DATA ERROR
    40 MCHP1IDE            INTERMITTENT STORAGE DATA ERROR
    20 MCHP1SKE            SOLID SPF KEY ERROR
    10 MCHP1IKE            INTERMITTENT SPF KEY ERROR
    08 MCHP1STD            DOUBLE BIT ERROR CORRECTED

  3A   MCHPDAR2    1 N*3   OPERATING SYSTEM STATUS

  3B   MCHPDAR3    1 N*4   LOCATION OF FAILURE

  3C   MCHPDAR4    1 N*5   LOCATION OF FAILURE
```

```
3D   MCHPDAR5   1 N*6  REQUESTED OPERATOR AWARENESS

3E   MCHPDAR6   1 N*7  FOOTPRINT

  Values defined in MCHPDAR6

  80 MCHP6CBA          CHANGE BIT ACTIVE

3F   MCHPDAR7   1 N*8  FOOTPRINTS

  Values defined in MCHPDAR7

  80 MCH7STCK          INTERFACE'S FOR STACK ROUTINE
  40 MCH7GSTR          INTERFACE'S FOR GETMAIN ROUTINE
  20 MCH7PURG          INTERFACE'S FOR PURGE ROUTINE
  10 MCH7LOGO          INTERFACE'S FOR V=R LOGOFF ROUTINE
  08 MCH7EXIT          INTERFACE'S FOR EXIT TO CP
  04 MCH7RSRE          INTERFACE'S FOR RELEASE & RESET ROUTINES
  02 MCH7IOEM          INTERFACE'S FOR THE RECORDER
  01 MCH7TRQ           INTERFACE'S FOR TRQBLOK SCHEDULED

40   MCHFSAV    4      INSTRUCTION ADDRESS AT FAILURE

44   MCHFSEAV   4      END OF THE FAILING LOCATION

48   MCHPDARI   4      END OF FAILING STORAGE - VIRTUAL ADDRESS

4C   MCHTCBCU   4      NOT USED

50   MCHREC     4      MACHINE CHECK RECORD ADDRESS

54   MCHCPEX    4      CPEXBLOK ADDRESS
```

CROSS REFERENCE
(Name Disp Value)

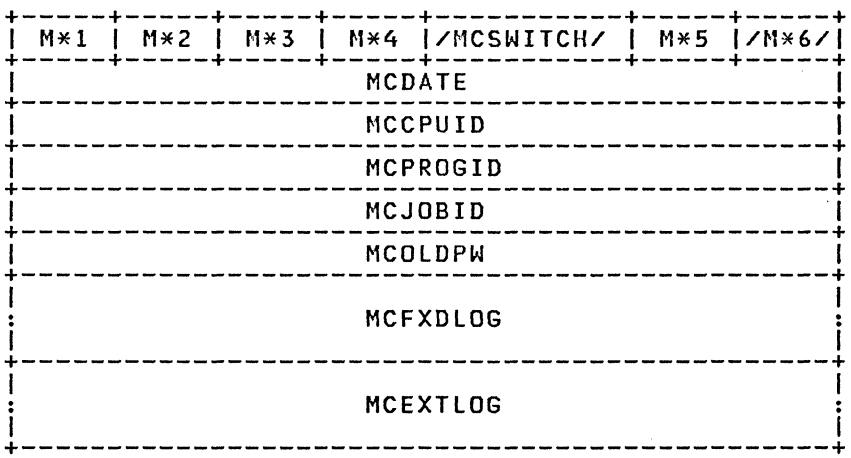
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MCHCPEX  0054  ..   MCHPDAR0 0038  ..   MCH0USAD 0008  20   MCH5IFSA 000D  20
MCHDAMFL 0008  ..   MCHPDAR1 0039  ..   MCH1BUFF 0009  40   MCH5INLG 000D  80
MCHDAMGE 0000  ..   MCHPDAR2 003A  ..   MCH1COST 0009  20   MCH5INMC 000D  40
MCHDAMLN 0000  ..   MCHPDAR3 003B  ..   MCH1GERR 0008  10   MCH7CHTM 000F  02
MCHFIX   .... 148   MCHPDAR4 003C  ..   MCH1IOTO 0009  04   MCH7EXIT 003F  08
MCHFLAG0 0008  ..   MCHPDAR5 003D  ..   MCH1MAIN 0009  80   MCH7GSTR 003F  40
MCHFLAG1 0009  ..   MCHPDAR6 003E  ..   MCH1PROC 0009  08   MCH7IOEM 003F  02
MCHFLAG2 000A  ..   MCHPDAR7 003F  ..   MCH1SYSD 0009  01   MCH7LOGO 003F  10
MCHFLAG3 000B  ..   MCHPROCA 0002  ..   MCH1TODC 0009  02   MCH7OPSW 000F  10
MCHFLAG4 000C  ..   MCHP1IDE 0039  40   MCH3BCST 000B  08   MCH7PURG 003F  20
MCHFLAG5 000D  ..   MCHP1IKE 0039  10   MCH3DATA 000B  20   MCH7RSRE 003F  04
MCHFLAG6 000E  ..   MCHP1SDE 0039  80 | MCH3DGRD 000B  02   MCH7SMCR 000F  80
MCHFLAG7 000F  ..   MCHP1SKE 0039  20 | MCH3HARD 000B  06   MCH7STCK 003F  80
MCHFSAR  0010  ..   MCHP1STD 0039  08   MCH3INTE 000B  80   MCH7SUP  000F  04
MCHFSAV  0040  ..   MCHP6CBA 003E  80 | MCH3PASS 000B  01   MCH7SYST 000F  20
MCHFSEAV 0044  ..   MCHREC   0050  ..   MCH3PROT 000B  10   MCH7TRQ  003F  01
MCHLEN   .... 4B    MCHRESEV 0005  .. | MCH3SOFT 000B  04   MCH7VEQR 000F  08
MCHLEN1  .... 58    MCHTCBCU 004C  ..   MCH3SOLD 000B  40   MCH7VRTM 000F  40
MCHLSUM  0018  ..   MCH0HDWR 0008  80   MCH4BURE 000C  10   MODEL135 0004  04
MCHMODEL 0004  ..   MCH0QUIT 0008  04   MCH4REPA 000C  40   MODEL138 0004  04
MCHPDAR  0038  ..   MCH0SFTR 0008  40   MCH4STRE 000C  20   MODEL145 0004  08
MCHPDARI 0048  ..   MCH0TERM 0008  08   MCH4TOLO 000C  80   MODEL148 0004  08
```

MODEL155	0004	0C	MOD3032	0004	14	MOD3090	0004	24	MOD4381	0004	20
MODEL158	0004	0C	MOD3033	0004	14	MOD4321	0004	18	MOD9081	0004	1C
MODEL165	0004	10	MOD3081	0004	1C	MOD4331	0004	18	MOD9083	0004	1C
MODEL168	0004	10	MOD3083	0004	1C	MOD4341	0004	18	MOD9190	0004	24
MOD3031	0004	14	MOD3084	0004	1C	MOD4361	0004	18	NOMODEL	0004	00

MCRECORD: MACHINE CHECK HANDLER RECORD

MCRECORD provides the necessary extended logout information for error recording of processor and main storage. The MCHREC field in MCHAREA points to MCRECORD. MCRECORD is found in MCRECORD copy.



SIZE

SIZE OF FIXED LOGOUT IN BYTES (FXDLGLH) 118

Disp	Name	Len	Key	Description
0	MCREC	0		START OF MACHINE CHECK RECORD
0	MCRECTYP	1	M*1	MACHINE CHECK RECORD TYPE
1	MCOPSYS	1	M*2	OPERATING SYSTEM
2	MCSWONE	1	M*3	RECORD INDEPENDENT SWITCH
	Values defined in MCSWONE			
	04 MCS1PASS			MACHINE ERROR PASSED TO VM IS ONLY APPLICABLE TO PNA, AND HARD/SOFT INDICATION IN MCSWTWO MUST BE '00'
3	MCSWTWO	1	M*4	RECORD DEPENDENT SWITCH
	Values defined in MCSWTWO			
	06 MCS2HARD			ERROR RECOVERY UNSUCCESSFUL AND RESOURCES MAY HAVE BEEN LOST
	04 MCS2SOFT			ERROR RECOVERY SUCCESSFUL, NO RESOURCES WERE LOST
	02 MCS2DGRD			ERROR RECOVERY SUCCESSFUL, SOME RESOURCES MAY HAVE BEEN LOST
4	MCSWITCH	2		RESERVED FOR IBM USE

6	MCRECCNT	1	M*5	RECORD COUNT
7	MCRSV1	1	M*6	RESERVED FOR IBM USE
8	MCDATE	8		DATE AND TIME
10	MCCPUID	8		PROCESSOR INDENTIFICATION
18	MCPROGID	8		PROGRAM IDENTITY
20	MCJOBID	8		JOB IDENTITY (UNUSED)
28	MCOLDPW	8		MACHINE CHECK OLD PSW
30	MCFXDLOG	280		MACHINE CHECK FIXED LOGOUT
148	MCEXTLOG	0		EXTENDED LOGOUT - VARIABLE LENGTH
148	MCHDAMAG	80		THE DAMAGE ASSESSMENT AREA

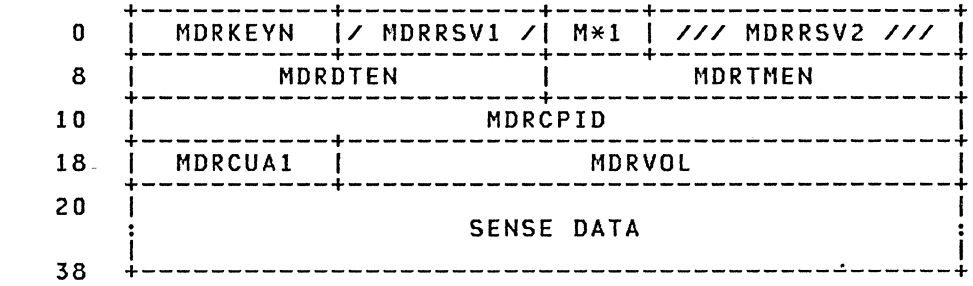
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

FXDLGLH	....	118	MCJOBID	0020	..	MCRECCNT	0006	..	MCSWTWO	0003	..
MCCPUID	0010	..	MCOLDPW	0028	..	MCRECTYP	0000	..	MCS1PASS	0002	04
MCDATE	0008	..	MCOPSYS	0001	..	MCRSV1	0007	..	MCS2DGRD	0003	02
MCEXTLOG	0148	..	MCPROGID	0018	..	MCSWITCH	0004	..	MCS2HARD	0003	06
MCFXDLOG	0030	..	MCREC	0000	..	MCSWONE	0002	..	MCS2SOFT	0003	04
MCHDAMAG	0148	..									

MDRREC: MISCELLANEOUS DATA RECORDING RECORD

MDRREC retains information for the error recording cylinders. MDRREC is found in MDRREC copy.



SIZE

MDR RECORD SIZE IN BYTES (MDRSIZE) 38
MINIMUM NON-DASD RECORD SIZE (MDRSIZE1) 1A

Disp	Name	Len	Key	Description
0	MDRKEYN	2		TYPE AND OPERATING SYSTEM
2	MDRREC	2		RESERVED FOR IBM USE
4	MDRSWS3	1	M*1	SWITCHES
5	MDRRSV2	3		RESERVED FOR IBM USE
8	MDRDTEN	4		DATE
C	MDRTMEN	4		TIME
10	MDRCPID	8		PROCESSOR ID AND MODEL
18	MDRCUA1	2		PRIMARY CUA OF DEVICE
1A	MDRVOL	6		VOLUME SERIAL OF DEVICE
20	MDRSENS	24		SENSE DATA

CROSS REFERENCE

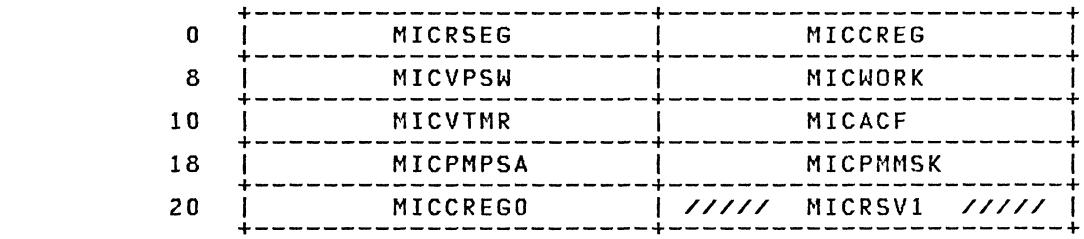
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MDRCPID	0010	..	MDRKEYN	0000	..	MDRSIZE1	....	1A	MDRTMEN	000C	..
MDRCUA1	0018	..	MDRSENS	0020	..	MDRSWS3	0004	..	MDRVOL	001A	..
MDRDTEN	0008	..	MDRSIZE	....	38						

MICBLOK: VIRTUAL MACHINE POINTER LIST FOR HARDWARE ASSIST

MICBLOK contains pointers to control registers, the segment table, and other values required by the virtual machine assist feature and the VM/370 Extended Control Program Support (ECPS:VM/370). This information is needed for the handling of certain instructions and privileged operations requested by the virtual machine. The VMMICRO field of the VMBLOK points to MICBLOK. MICBLOK is found in MICBLOK copy.



SIZE

MICBLOK SIZE IN DOUBLEWORDS (MICSIZE) 5

Disp	Name	Len	Key	Description
0	MICRSEG	4		REAL SEGMENT TABLE ADDRESS
4	MICCREG	4		VIRTUAL CONTROL REGISTER ADDRESS
8	MICVPSW	4		VIRTUAL PSW ADDRESS
8	MICVIP	1		VIRTUAL INTERRUPT PENDING BIT
	Values defined in MICVIP			
80	MICPEND			VIRTUAL INTERRUPT IS PENDING
C	MICWORK	4		WORKSPACE ADDRESS
10	MICVTMR	4		VIRTUAL INTERVAL TIMER ADDRESS
14	MICACF	4		ASSIST CONTROLS FULLWORD
14	MICEVMA	1		EVMA CONTROL BITS
	Values defined in MICEVMA			
80	MICLPSW			LPSW SIMULATION
40	MICPTLB			PTLB SIMULATION
20	MICSCSP			SCKC, SPT SIMULATION
10	MICSIO			SIO SIMULATION
08	MICSTSM			STNSM, STOSM, SSM SIMULATION
04	MICSTPT			STPT SIMULATION
02	MICTCH			TCH SIMULATION
01	MICDIAG			DIAGNOSE SIMULATION

15	MICEVMA2	1	STBYVR MODE ASSIST CNTRL BITS

Values defined in MICEVMA2

80	MICSTBVR	STBYVR MODE ASSIST ACTIVE
40	MICPTLB2	PURGE TLB SIMULATION
20	MICIPTP2	IPTE AND TPRT SIMULATION
10	MICVPFR2	VIRTUAL PAGE FAULT REFLECTION
08	MICLRA2	LRA SIMULATION
04	MICSPT	FULL SPT ASSIST
02	MICSTSM2	STNSM,STOSM SIMULATION
01	MICLCTL2	LCTL SIMULATION

16	MICEVMA3	1	ADDITIONAL VMA CONTROL BITS

Values defined in MICEVMA3

80	MICDASA	DUAL ADDRESS SPACE ASSIST ACTIVE
40	MICFSSE	FORCE SPACE SWITCH EVENTS
20	MICSKYMD	SET TO B'1' WHEN USER HAS VIRTUAL STORAGE
10	MICISKE	SET TO B'1' WHEN VMA SIMULATES ISKE
08	MICRRBE	SET TO B'1' WHEN VMA SIMULATES RRBE
04	MICSSKE	SET TO B'1' WHEN VMA SIMULATES SSKE
02	MICPMAMP	MP INTERRUPT OR VM-ISSUED SIGP
01	MICPMAV	PMAV ACTIVE (PMA AND CONTROL SWITCH

18	MICPMPSA	4	CP'S PREFIX VALUE
1C	MICPMMSK	4	CP-OWNED CHANNEL MASK
20	MICCREG0	4	VIRTUAL CONTROL REGISTER 0
24	MICRSV1	4	RESERVED FOR IBM USE

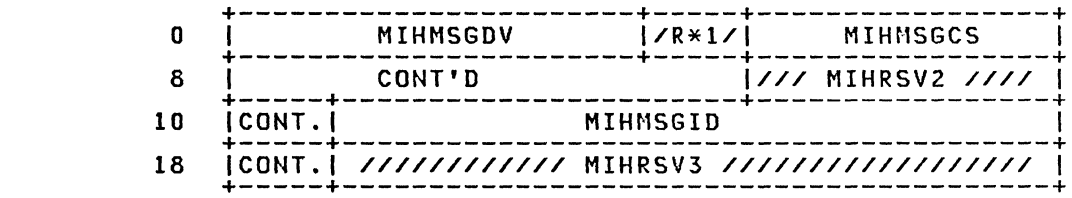
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MICACF	0014	..	MICISKE	0016	10	MICPTLB2	0015	40	MICSTPT	0014	04
MICCREG	0004	..	MICLCTL2	0015	01	MICRRBE	0016	08	MICSTSM	0014	08
MICCREG0	0020	..	MICLPSW	0014	80	MICRSEG	0000	..	MICSTSM2	0015	02
MICDASA	0016	80	MICLRA2	0015	08	MICSCSP	0014	20	MICTCH	0014	02
MICDIAG	0014	01	MICPEND	0008	80	MICSIO	0014	10	MICVIP	0008	..
MICEVMA	0014	..	MICPMAMP	0016	02	MICSIZE	....	5	MICVPFR2	0015	10
MICEVMA2	0015	..	MICPMAV	0016	01	MICSKYMD	0016	20	MICVPSW	0008	..
MICEVMA3	0016	..	MICPMMSK	001C	..	MICSPT	0015	04	MICVTMR	0010	..
MICFSSE	0016	40	MICPMPSA	0018	..	MICSSKE	0016	04	MICWORK	000C	..
MICIPTP2	0015	20	MICPTLB	0014	40	MICSTBVR	0015	80			

MIHMSG: MISSING INTERRUPT HANDLER MESSAGE DATA FIELD

The missing interrupt handler error recording process uses MIHMSG to convey the system programmer or the operator with a message indicating whether or not corrective action was successful. MIHMSG is found in MIHREC copy.



SIZE

LENGTH OF MESSAGE PARAMETERS (MIHMSGLN) 19
SIZE OF MIHMSG IN DOUBLEWORDS (MIHMSGDW) 4

Disp	Name	Len	Key	Description
0	MIHMSGDV	4		DEVICE / CONTROL UNIT ADDRESS
4	MIHRSV1	1	R*1	RESERVED FOR IBM USE
5	MIHMSGCS	8		CSW STATUS FIELD BITS 32-63
D	MIHRSV2	4		RESERVED FOR IBM USE
11	MIHMSGID	8		USER ID
19	MIHRSV3	7		RESERVED FOR IBM USE

CROSS REFERENCE

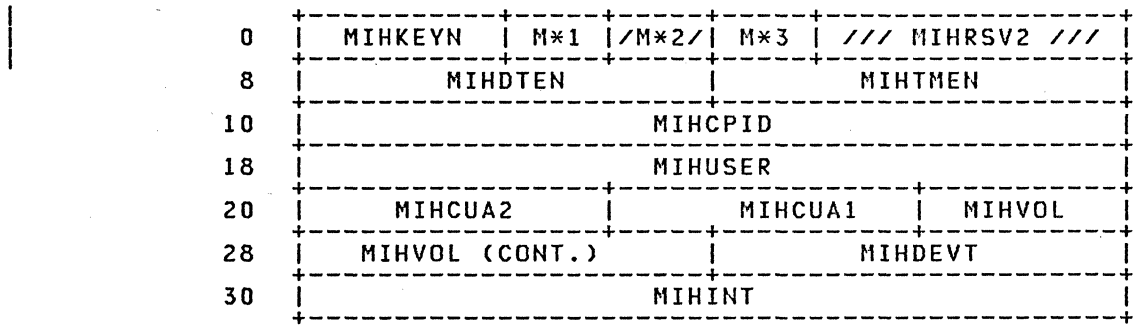
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MIHMSGCS 0005 .. MIHMSGDW .... 4 MIHMSGID 0011 .. MIHMSGLN 19
MIHMSGDV 0000 ..

MIHREC: MISSING INTERRUPTION HANDLER ERROR RECORD

MIHREC is used in the SVC 76-initiated error recording process of type 70 MIH (Missing Interruption Handler) records. MIHREC is found in MIHREC copy.



SIZE

MIH RECORD SIZE IN BYTES (MIHSIZE) 38

Disp	Name	Len	Key	Description
0	MIHKEYN	2		TYPE AND OPERATING SYSTEM
2	MIHSWS1	1	M*1	SWITCH BYTE 0
3	MIHRSV1	1	M*2	RESERVED FOR IBM USE
4	MIHSWS3	1	M*3	INTERRUPT STATUS
	Values defined in MIHSWS3			
	80 MIHCE			CHANNEL END INTERRUPT FOUND PENDING
	40 MIHDE			DEVICE END INTERRUPT FOUND PENDING
5	MIHRSV2	3		RESERVED FOR IBM USE
8	MIHDTEN	4		DATE
C	MIHTMEN	4		TIME
10	MIHCPID	8		PROCESSOR ID AND MODEL
18	MIHUSER	8		USER WHOSE I/O REQUEST PENDING
20	MIHCUA2	3		CUA USED TO ADDRESS THE DEVICE
23	MIHCUA1	3		PRIMARY DEVICE ADDRESS
26	MIHVOL	6		VOLUME SERIAL
2C	MIHDEVT	4		DEVICE TYPE
30	MIHINT	8		INTERVAL TO CHECK PENDING INTERRUPT

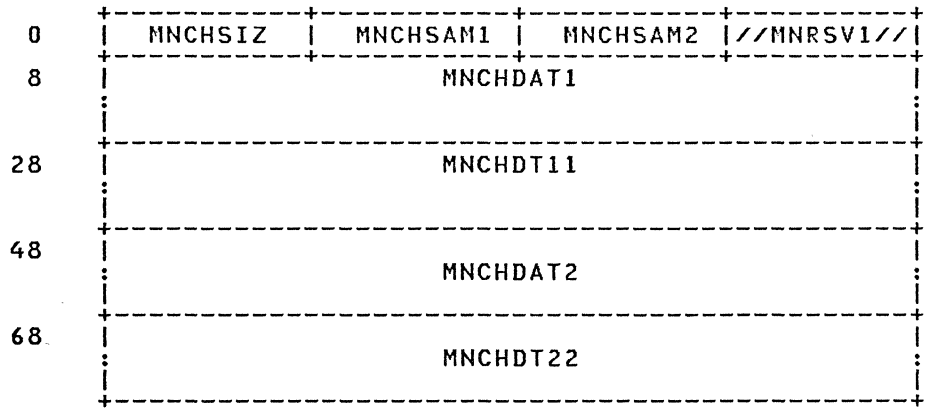
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MIHCE	0004	80	MIHDEVT	002C	..	MIHRSV1	0003	..	MIHSWS3	0004	..
MIHCPID	0010	..	MIHDTEN	0008	..	MIHRSV2	0005	..	MIHTMEN	000C	..
MIHCUA1	0023	..	MIHINT	0030	..	MIHSIZE	....	38	MIHUSER	0018	..
MIHCUA2	0020	..	MIHKEYN	0000	..	MIHSWS1	0002	..	MIHVOL	0026	..
MIHDE	0004	40									

MNCHLIST: MONITOR CHANNEL LIST

MNCHLIST provides information on channel activity. Pointed to by MONCHPTR, MNCHLIST contains the number of high frequency device samples taken by DMKENTTI, as well as the channel busy counts over the monitor interval. This data is moved to the monitor class 6 code 3 record (MN603CH) for reporting by the Monitor. Note that control unit and device busy counts are accumulated in a separate block (MNDEVLST) pointed to by MONDVLST. MNCHLIST is found in MONBLOKS copy.



SIZE

MP MNCHLIST SIZE IN DOUBLEWORDS (MNCHZMP) 11
UP/AP MNCHLIST SIZE IN DOUBLEWORDS (MNCHSIZE) 09

Disp	Name	Len	Key	Description
0	MNCHSIZ	2		NUMBER OF DOUBLEWORDS IN DSECT
2	MNCHSAM1	2		NUMBER OF SAMPLES FOR IPL PROCESSOR
4	MNCHSAM2	2		NUMBER OF SAMPLES FOR SECOND PROCESSOR
6	MNRSV1	2		RESERVED FOR IBM USE
8	MNCHDAT1	32		CHANNEL SAMPLES (0-15) IPL PROCESSOR
28	MNCHDT11	32		CHANNEL SAMPLES (16-31) IPL PROCESSOR
48	MNCHDAT2	32		CHANNEL SAMPLES (0-15) SECOND PROCESSOR
68	MNCHDT22	32		CHANNEL SAMPLES (16-31) SECOND PROCESSOR

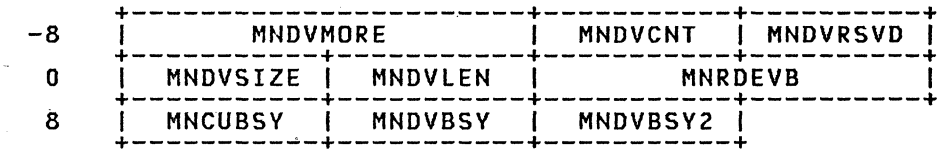
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

MNCHDAT1	0008	MNCHDT22	0068		MNCHSAM2	0004		MNCHSZ		04
MNCHDAT2	0048	MNCHSAMP		02	MNCHSIZ	0000		MNCHZMP		09
MNCHDT11	0028	MNCHSAM1	0002		MNCHSIZE		05	MNRSV1	0006	

MNDEVLST: MONITOR CLASS 6 (DASTAP) DEVICE LIST

MNDEVLST provides information on device activity. Pointed to by MONDVLST, it (MNDEVLST) contains a list of RDEVBLOK addresses to be used by class 6 (DASTAP) data collection, together with bins, for each device, in which the high frequency sampler (DMKENTTI) can accumulate control unit and device busy counts during each monitor interval. Note that channel busy counts are accumulated in a separate area pointed to by MONCHPTR, 5 doublewords and 2 bytes per entry. MNDEVLST is found in MONBLOKS copy.



SIZE

MP DEVICE ENTRY LENGTH IN BYTES (MNDEVLMP) 0A
UP/AP DEVICE ENTRY LENGTH IN BYTES (MNDEVLEN) 08

Disp	Name	Len	Key	Description
-08	MNDVMORE	4		POINTER TO NEXT BLOCK OF DEV LIST
-04	MNDVCNT	2		NUMBER OF DEVICES IN THIS BLOCK
-02	MNDVRSVD	2		RESERVED FOR IBM USE
0	MNDVSIZE	2		NUMBER OF DOUBLEWORDS IN DSECT
2	MNDVLEN	2		NUMBER OF BYTES IN EACH ENTRY
4	MNRDEVB	4		RDEVBLOK ADDRESS
8	MNCUBSY	2		CONTROL UNIT BUSY COUNT
A	MNDVBSY	2		DEVICE BUSY COUNT
C	MNDVBSY2	2		DEVICE BUSY COUNT FOR SECOND PROCESSOR

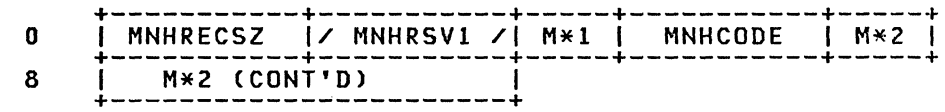
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

DEFINTVL	000C	05	MNDEVLMP	0000	0E	MNDVCNT	-0004
MNDVLEN	0002	MNCUBSY	0008	MNDVBSY	000A	MNDVMORE	-0008
MNDVSIZE	0000	MNDEVLEN	000C	08	MNDVBSY2	000C	
MNDVRSVD	-0002	MNRDEVB	0004				

MNHDR: MONITOR RECORD HEADER

MNHDR provides header information for most of the following monitor records. MN600, MN602, and MN802 contain their own header information. MNHDR is found in MONBLOKS copy.



SIZE

RECORD HEADER LENGTH IN BYTES (MNHDRLEN) 0C
LENGTH OF THE BLOCK HEADER (VB FORMAT) (MNBHDLEN) 04

Disp	Name	Len	Key	Description
0	MNHRECSZ	2		RECORD SIZE
2	MNHRSV1	2		RESERVED FOR IBM USE
4	MNHCLASS	1	M*1	MONITOR CLASS
5	MNHCODE	2		MONITOR CODE
7	MNHTOD	5	M*2	CURRENT TIME OF DAY CLOCK VALUE

CROSS REFERENCE
(Name Disp Value)

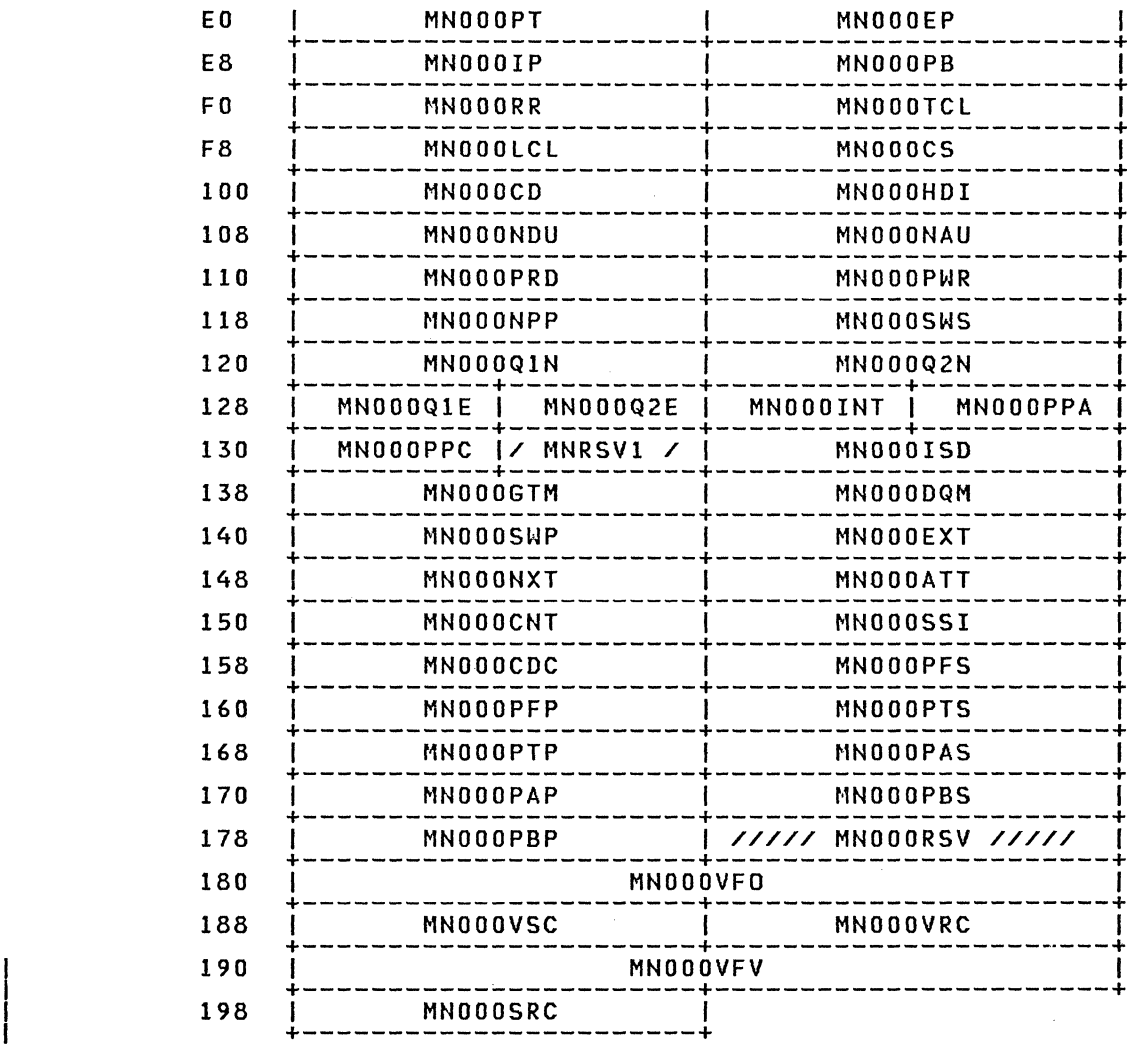
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MNBHDLEN 04 MNHCODE 0005 MNHRECSZ 0000 MNHTOD 0007
MNHCLASS 0004 MNHDRLEN 0C MNHRSV1 0002

MN000: MONITOR PERFORMANCE CLASS RECORD

MN000 provides an area for the accumulation of records dealing with privilege operations, paging, dispatching, and interruption activity. MN000 is found in MONBLOKS copy.

0	MN000WID	
8	MN000WPG	
10	MN000WIO	
18	MN000PRB	
20	MN000PSI	MN000CPA
28	MN000NFL	MN000PSN
30	MN000PRC	MN000RPC
38	MN000SPC	MN000FLF
40	MN000CPT	MN000SS
48	MN000PFF	MN000PRF
50	MN000PCS	MN000NXR
58	MN000CPR	MN000CVI
60	MN000CCW	MN000ITI
68	MN000PTI	MN000CKI
70	MN000CSV	MN000CPG
78	MN000CIO	MN000CDS
80	MN000CDA	MN000CDB
88	MN000CSC	MN000EK
90	MN000IK	MN000MS
98	MN000LP	MN000DI
A0	MN000SI	MN000SF
A8	MN000TI	MN000CI
B0	MN000HI	MN000HD
B8	MN000TC	MN000MN
C0	MN000MO	MN000LR
C8	MN000CP	MN000CH
D0	MN000TE	MN000CE
D8	MN000CT	MN000PE



SIZE

RECORD LENGTH IN BYTES (MN000LEN) 194

Disp	Name	Len	Key	Description
0	MN000WID	8		TOTAL SYSTEM IDLE WAIT TIME
8	MN000WPG	8		TOTAL SYSTEM PAGE WAIT TIME
10	MN000WIO	8		TOTAL SYSTEM I/O WAIT TIME
18	MN000PRB	8		TOTAL SYSTEM PROBLEM STATE TIME
20	MN000PSI	4		NUMBER OF CALLS TO DMKIOS FOR PAGING

24	MN000CPA	4	NUMBER OF CALLS TO DMKPAG
28	MN000NFL	4	NUMBER OF PAGE FRAMES CURRENTLY ON FREE LIST
2C	MN000PSN	4	NUMBER OF PAGES CURRENTLY BEING SWAPPED
30	MN000PRC	4	NUMBER OF PAGES FLUSHED BUT RECLAIMED
34	MN000RPC	4	NUMBER OF RESERVED PAGES
38	MN000SPC	4	NUMBER OF SHARED SYSTEM PAGES
3C	MN000FLF	4	NUMBER OF TIMES THE FREE LIST WAS EMPTY
40	MN000CPT	4	NUMBER OF CALLS TO DMKPTRFR
44	MN000SS	4	NUMBER OF PAGES STOLEN FROM IN QUEUE USERS
48	MN000PFF	4	NUMBER OF PAGES SWAPPED FROM THE FLUSH LIST
4C	MN000PRF	4	NUMBER OF PAGES EXAMINED IN STEALING A PAGE
50	MNJ00PCS	4	NUMBER OF FULL SCANS DONE IN STEALING PAGES
54	MN000NXR	4	NUMBER OF REAL EXTERNAL INTERRUPTS
58	MN000CPR	4	NUMBER OF CALLS TO DMKPRVLG
5C	MN000CVI	4	NUMBER OF CALLS TO DMKVIOEX
60	MN000CCW	4	NUMBER OF CALLS TO DMKCCW FROM DMKVIO
64	MN000ITI	4	NUMBER OF INTERVAL TIMER INTERRUPT REFLECTED
68	MN000PTI	4	NUMBER OF CPU TIMER INTERRUPT REFLECTED
6C	MN000CKI	4	NUMBER OF CLOCK COMP INTERRUPT REFLECTED
70	MN000CSV	4	NUMBER OF SVC INTERRUPT REFLECTED
74	MN000CPG	4	NUMBER OF PROGRAM INTERRUPT HANDLED
78	MN000CIO	4	NUMBER OF I/O INTERRUPTS HANDLED
7C	MN000CDS	4	NUMBER OF CALLS TO DMKDSP (MAIN ENTRY)
80	MN000CDA	4	NUMBER OF FAST REFLECTS IN DMKDSP
84	MN000CDB	4	NUMBER OF DISPATCHES FOR NEW PSW'S
88	MN000CSC	4	NUMBER OF CALLS TO DMKSCHDL
8C	MN000EK	4	INSTRUCTION COUNT FOR X'08' SSK
90	MN000IK	4	INSTRUCTION COUNT FOR X'09' ISK
94	MN000MS	4	INSTRUCTION COUNT FOR X'80' SSM
98	MN000LP	4	INSTRUCTION COUNT FOR X'82' LPSW
9C	MN000DI	4	INSTRUCTION COUNT FOR X'83' DIAG
A0	MN000SI	4	INSTRUCTION COUNT FOR X'9CX0' SIO
A4	MN000SF	4	INSTRUCTION COUNT FOR X'9CX1' SIOF

A8	MN000TI	4	INSTRUCTION COUNT FOR X'9DX0' TIO
AC	MN000CI	4	INSTRUCTION COUNT FOR X'9DX1' CLRIO
B0	MN000HI	4	INSTRUCTION COUNT FOR X'9EX0' HIO
B4	MN000HD	4	INSTRUCTION COUNT FOR X'9EX1' HDV
B8	MN000TC	4	INSTRUCTION COUNT FOR X'9F' TCH
BC	MN000MN	4	INSTRUCTION COUNT FOR X'AC' STNSM
C0	MN000MO	4	INSTRUCTION COUNT FOR X'AD' STOSM
C4	MN000LR	4	INSTRUCTION COUNT FOR X'B1' LRA
C8	MN000CP	4	INSTRUCTION COUNT FOR X'B202' STIDP
CC	MN000CH	4	INSTRUCTION COUNT FOR X'B203' STIDC
D0	MN000TE	4	INSTRUCTION COUNT FOR X'B204' SCK
D4	MN000CE	4	INSTRUCTION COUNT FOR X'B206' SCKC
D8	MN000CT	4	INSTRUCTION COUNT FOR X'B207' STCKC
DC	MN000PE	4	INSTRUCTION COUNT FOR X'B208' SPT
E0	MN000PT	4	INSTRUCTION COUNT FOR X'B209' STPT
E4	MN000EP	4	INSTRUCTION COUNT FOR X'B20A' SPKA
E8	MN000IP	4	INSTRUCTION COUNT FOR X'B20B' IPK
EC	MN000PB	4	INSTRUCTION COUNT FOR X'B20D' PTLB
F0	MN000RR	4	INSTRUCTION COUNT FOR X'B213' RRB
F4	MNJ00TCL	4	INSTRUCTION COUNT FOR X'B6' STCTL
F8	MN000LCL	4	INSTRUCTION COUNT FOR X'B7' LCTL
FC	MN000CS	4	INSTRUCTION COUNT FOR X'BA' CS
100	MN000CD	4	INSTRUCTION COUNT FOR X'BB' CDS
104	MN000HDI	4	DIAGNOSE DISK I/O SIMULATION COUNT
108	MN000NDU	4	NUMBER OF USERS DIALED TO A VIRTUAL MACHINE
10C	MN000NAU	4	NUMBER OF USERS LOGGED ON
110	MN000PRD	4	NUMBER OF PAGE READS
114	MN000PWR	4	NUMBER OF PAGE WRITES
118	MN000NPP	4	NUMBER OF SYSTEM PAGEABLE PAGES
11C	MN000SWS	4	SUM OF WORKING SETS OF IN-QUEUE USERS
120	MN000Q1N	4	NUMBER OF USERS IN Q1
124	MN000Q2N	4	NUMBER OF USERS IN Q2
128	MN000Q1E	2	NUMBER OF USERS ELIGIBLE FOR Q1

12A	MN000Q2E	2	NUMBER OF USERS ELIGIBLE FOR Q2
12C	MN000INT	2	MONITOR SAMPLING INTERVAL IN SECONDS
12E	MN000PPA	2	NUMBER OF PREFERRED PAGING (SW, PP, PG) USED
130	MN000PPC	2	NUMBER OF PREFERRED PAGING (SW, PP, PG) DEFINED
132	MNRSV1	2	RESERVED FOR IBM USE
134	MN000ISD	4	COUNT OF MINI IOB STACK DEPLETES
138	MN000GTM	4	COUNT OF MINI IOB ENQUEUES
13C	MN000DQM	4	COUNT OF MINI IOB DEQUEUES
140	MN000SWP	4	COUNT OF SIOs ON ALTERNATE PATH
144	MN000EXT	4	COUNT OF FREE STORE EXTENDS
148	MN000NXT	4	COUNT OF FREE STORE UNEXTENDS
14C	MN000ATT	4	COUNT OF TYSPLIT ATTEMPTS
150	MN000CNT	4	COUNT OF SUBPOOL SPLITS
154	MN000SSI	4	NUMBER OF CALLS TO DMKIOS FOR SWAPPING
158	MN000CDC	4	NUMBER OF IPL PROCESSOR CALLS TO DMKDSPWA
15C	MN000PFS	4	NUMBER PAGEINS FROM PST (TYPE=SW)
160	MN000PFP	4	NUMBER PAGEINS FROM PST (TYPE=PP)
164	MN000PTS	4	NUMBER PAGEOUTS TO PST (TYPE=SW)
168	MN000PTP	4	NUMBER PAGEOUTS TO PST (TYPE=PP)
16C	MN000PAS	4	PST PAGES ALLOCATED (TYPE=SW)
170	MN000PAP	4	PST PAGES ALLOCATED (TYPE=PP)
174	MN000PBS	4	PST PAGES NOT USABLE (TYPE=SW)
178	MN000PBP	4	PST PAGES NOT USABLE (TYPE=PP)
17C	MN000RSV	4	RESERVED
180	MN000VFO	8	IPL PROCESSOR VF OVERHEAD TIME
188	MN000VSC	4	IPL PROCESSOR VF SAVE COUNT
18C	MN000VRC	4	IPL PROCESSOR VF RESTORE COUNT
190	MN000VFV	8	VM USE OF VECTOR FACILITY FOR THIS PROCESSOR
198	MN000SRC	4	NUMBER OF PAGES LOGICALLY SWAPPED

CROSS REFERENCE
(Name Disp Value)

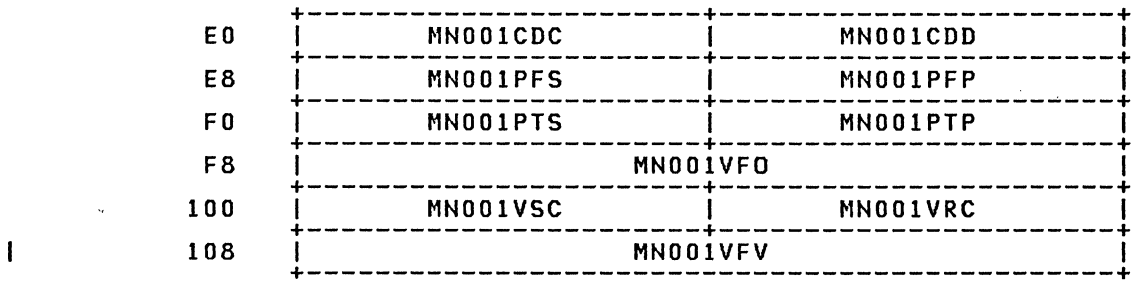
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN000ATT	014C	..	MN000EK	008C	..	MN000NXT	0148	..	MN000Q1N	0120	..
MN000CCW	0060	..	MN000EP	00E4	..	MN000PAP	0170	..	MN000Q2E	012A	..
MN000CD	0100	..	MN000EXT	0144	..	MN000PAS	016C	..	MN000Q2N	0124	..
MN000CDA	0080	..	MN000FLF	003C	..	MN000PB	00EC	..	MN000RPC	0034	..
MN000CDB	0084	..	MN000GTM	0138	..	MN000PBP	0178	..	MN000RR	00F0	..
MN000CDC	0158	..	MN000HD	00B4	..	MN000PBS	0174	..	MN000RSV	017C	..
MN000CDS	007C	..	MN000HDI	0104	..	MN000PCS	0050	..	MN000SF	00A4	..
MN000CE	00D4	..	MN000HI	00B0	..	MN000PE	00DC	..	MN000SI	00A0	..
MN000CH	00CC	..	MN000IK	0090	..	MN000PFF	0048	..	MN000SPC	0038	..
MN000CI	00AC	..	MN000INT	012C	..	MN000PFP	0160	..	MN000SRC	0198	..
MN000CIO	0078	..	MN000IP	00E8	..	MN000PFS	015C	..	MN000SS	0044	..
MN000CKI	006C	..	MN000ISD	0134	..	MN000PPA	012E	..	MN000SSI	0154	..
MN000CNT	0150	..	MN000ITI	0064	..	MN000PPC	0130	..	MN000SWP	0140	..
MN000CP	00C8	..	MN000LCL	00F8	..	MN000PRB	0018	..	MN000SWS	011C	..
MN000CPA	0024	..	MN000LEN	....	194	MN000PRC	0030	..	MN000TC	00B8	..
MN000CPG	0074	..	MN000LP	0098	..	MN000PRD	0110	..	MN000TCL	00F4	..
MN000CPR	0058	..	MN000LR	00C4	..	MN000PRF	004C	..	MN000TE	00D0	..
MN000CPT	0040	..	MN000MN	00BC	..	MN000PSI	0020	..	MN000TI	00A8	..
MN000CS	00FC	..	MN000MO	00C0	..	MN000PSN	002C	..	MN000VFO	0180	..
MN000CSC	0088	..	MN000MS	0094	..	MN000PT	00E0	..	MN000VFV	0190	..
MN000CSV	0070	..	MN000NAU	010C	..	MN000PTI	0068	..	MN000VRC	018C	..
MN000CT	00D8	..	MN000NDU	0108	..	MN000PTP	0168	..	MN000VSC	0188	..
MN000CVI	005C	..	MN000NFL	0028	..	MN000PTS	0164	..	MN000WID	0000	..
MN000DI	009C	..	MN000NPP	0118	..	MN000PWR	0114	..	MN000WIO	0010	..
MN000DQM	013C	..	MN000NXR	0054	..	MN000Q1E	0128	..	MN000WPG	0008	..

MN001: MONITOR PERFORMANCE CLASS RECORD

MN001 gives information on the performance of the attached processor. MN001 is found in MONBLOKS copy

0	MN001WID	
8	MN001WPG	
10	MN001WIO	
18	MN000PRB	
20	MN001NXR	MN001CSV
28	MN001PRD	MN001PWR
30	MN001SSY	MN001NSY
38	MN001SFR	MN001NFR
40	MN001SRN	MN001NRN
48	MN001STM	MN001NTM
50	MN001SDP	MN001NDP
58	MN001NFL	MN001NFS
60	MN001NSD	MN001NVD
68	MN001NRU	MN001SIO
70	MN001NIO	MN001SRM
78	MN001NRM	MN001NE1
80	MN001NQ1	MN001NE2
88	MN001NQ2	MN001ND1
90	MN001NW1	MN001NR1
98	MN001ND2	MN001NW2
A0	MN001NR2	MN001ST1
A8	MN001NT1	MN001ST2
B0	MN001NT2	MN001SDA
B8	MN001NDA	MN001VS1
C0	MN001TQ1	MN001VS2
C8	MN001TQ2	MN001CX1
D0	MN001CX2	MN001CDS
D8	MN001CDA	MN001CDB



SIZE

RECORD LENGTH IN BYTES (MN001LEN) 108

Disp	Name	Len	Key	Description
0	MN001WID	008		NON-IPL PROCESSOR IDLE WAIT TIME
8	MN001WPG	8		NON-IPL PROCESSOR PAGE WAIT TIME
10	MN001WIO	8		NON-IPL PROCESSOR I/O WAIT TIME
18	MN001PRB	8		NON-IPL PROCESSOR PROBLEM STATE TIME
20	MN001NXR	4		NUMBER OF EXT INT'S TO NON-IPL PROCESSOR
24	MN001CSV	4		NUMBER OF SVC'S REFLECTED BY NON-IPL PROCESSOR
28	MN001PRD	4		NUMBER OF PAGE READS BY NON-IPL PROCESSOR
2C	MN001PWR	4		NUMBER OF PAGE WRITES BY NON-IPL PROCESSOR
30	MN001SSY	4		TOTAL TIME SPIN ON SYSTEM LOCK
34	MN001NSY	4		TOTAL NUMBER SPINS FOR SYSTEM LOCK
38	MN001SFR	4		TOTAL TIME SPIN ON DMKFRE LOCK
3C	MN001NFR	4		TOTAL NUMBER SPINS FOR DMKFRE LOCK
40	MN001SRN	4		TOTAL TIME SPIN ON RUNLIST LOCK
44	MN001NRN	4		TOTAL NUMBER SPINS FOR RUNLIST LOCK
48	MN001STM	4		TOTAL TIME SPIN ON TIMER REQ LOCK
4C	MN001NTM	4		TOTAL NUMBER SPINS FOR TIMER REQ LOCK
50	MN001SDP	4		TOTAL TIME SPIN ON IPL DISP QUEUE LOCK
54	MN001NDP	4		TOTAL NUMBER SPINS FOR IPL DISP QUEUE LOCK
58	MN001NFL	4		NUMBER TIMES CPFRELK SET
5C	MN001NFS	4		NUMBER TIMES CPFRESW SET
60	MN001NSD	4		NUMBER TIMES SYS LOCK REQ DEFERRED

64	MN001NVD	4	NUMBER TIMES VMBLOK LOCK DEFERRED
68	MN001NRU	4	NUMBER OF DMKDSPRU ENTRIES ON IPL PROCESSOR
6C	MN001SIO	4	TOTAL TIME SPIN ON I/O LOCK
70	MN001NIO	4	TOTAL NUMBER SPINS FOR I/O LOCK
74	MN001SRM	4	TOTAL TIME SPIN ON RM LOCK
78	MN001NRM	4	TOTAL NUMBER SPINS FOR RM LOCK
7C	MN001NE1	4	NUMBER EXTEND EMS ON IPL PROCESSOR
80	MN001NQ1	4	NUMBER QUIESCE EMS ON IPL PROCESSOR
84	MN001NE2	4	NUMBER EXTEND EMS ON NON-IPL PROCESSOR
88	MN001NQ2	4	NUMBER QUIESCE EMS ON NON-IPL PROCESSOR
8C	MN001ND1	4	NUMBER DISPATCH XC ON IPL PROCESSOR
90	MN001NW1	4	NUMBER WAKEUP XC ON IPL PROCESSOR
94	MN001NR1	4	NUMBER RESUME XC ON IPL PROCESSOR
98	MN001ND2	4	NUMBER DISPATCH XC ON NON-IPL PROCESSOR
9C	MN001NW2	4	NUMBER WAKEUP XC ON NON-IPL PROCESSOR
A0	MN001NR2	4	NUMBER RESUME XC ON NON-IPL PROCESSOR
A4	MN001ST1	4	TOTAL TIME SPIN ON IPL PROCESSOR TRL LOCK
A8	MN001NT1	4	TOTAL NUMBER OF SPINS FOR IPL PROCESSOR TRL LOCK
AC	MN001ST2	4	TOTAL TIME SPIN ON NON-IPL PROCESSOR TRL LOCK
B0	MN001NT2	4	TOTAL NUMBER OF SPINS FOR NON-IPL PROCESSOR TRL LOCK
B4	MN001SDA	4	TOTAL TIME SPIN FOR NON-IPL PROCESSOR DISPATCHER QUEUE LOCK
B8	MN001NDA	4	TOTAL NUMBER SPINS FOR NON-IPL PROCESSOR DISPATCHER QUEUE LOCK
BC	MN001VS1	4	VMBLOKS STOLEN BY IPL PROCESSOR
C0	MN001TQ1	4	SUM OF NUMBER VMBLOKS ON NON-IPL PROCESSOR TRL
C4	MN001VS2	4	VMBLOKS STOLEN BY NON-IPL PROCESSOR
C8	MN001TQ2	4	SUM OF NUMBER OF VMBLOKS ON IPL TRL
CC	MN001CX1	4	NUMBER OF CPEXBLOKS TRANSFERRED FROM THE IPL PROCESSOR
D0	MN001CX2	4	NUMBER OF CPEXBLOKS TRANSFERRED FROM THE NON-IPL PROCESSOR
D4	MN001CDS	4	NUMBER OF CALLS TO DMKDSP (MAIN ENTRY) ON NON-IPL PROCESSOR

D8	MN001CDA	4	NUMBER FAST REFLECTS IN DMKDSP ON NON-IPL PROCESSOR
DC	MN001CDB	4	NUMBER DISPATCHES FOR NEW PSWS ON NON-IPL PROCESSOR
E0	MN001CDC	4	NUMBER OF CALLS TO DMKDSPWA ON NON-IPL PROCESSOR
E4	MN001CDD	4	NUMBER OF CALLS TO DMKDSPRU ON NON-IPL PROCESSOR
E8	MN001PFS	4	NUMBER PAGEINS FROM PST (TYPE=SW) BY THE NON-IPL PROCESSOR
EC	MN001PFP	4	NUMBER PAGEINS FROM PST (TYPE=PP) BY THE NON-IPL PROCESSOR
F0	MN001PTS	4	NUMBER PAGEOUTS TO PST (TYPE=SW) BY THE NON-IPL PROCESSOR
F4	MN001PTP	4	NUMBER PAGEOUTS TO PST (TYPE=PP) BY THE NON-IPL PROCESSOR
F8	MN001VFO	8	NON-IPL PROCESSOR VECTOR FACILITY OVERHEAD TIME
100	MN001VSC	4	NON-IPL PROCESSOR VECTOR FACILITY SAVE COUNT
104	MN001VRC	4	NON-IPL PROCESSOR VECTOR FACILITY RESTORE COUNT
108	MN001VFV	8	VM USE OF VECTOR FACILITY ON THIS PROCESSOR

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN001CDA	00D8	MN001NFR	003C	MN001NW1	0090	MN001SSY	0030
MN001CDB	00DC	MN001NFS	005C	MN001NW2	009C	MN001STM	0048
MN001CDC	00E0	MN001NIO	0070	MN001NXR	0020	MN001ST1	00A4
MN001CDD	00E4	MN001NQ1	0080	MN001PFP	00EC	MN001ST2	00AC
MN001CDS	00D4	MN001NQ2	0088	MN001PFS	00E8	MN001TQ1	00C0
MN001CSV	0024	MN001NRM	0078	MN001PRB	0018	MN001TQ2	00C8
MN001CX1	00CC	MN001NRN	0044	MN001PRD	0028	MN001VFO	00F8
MN001CX2	00D0	MN001NRU	0068	MN001PTP	00F4	MN001VFV	0108
MN001LEN	E8	MN001NR1	0094	MN001PTS	00F0	MN001VRC	0104
MN001NDA	00B8	MN001NR2	00A0	MN001PWR	002C	MN001VSC	0100
MN001NDP	0054	MN001NSD	0060	MN001SDA	00B4	MN001VS1	00BC
MN001ND1	008C	MN001NSY	0034	MN001SDP	0050	MN001VS2	00C4
MN001ND2	0098	MN001NTM	004C	MN001SFR	0038	MN001WID	0000
MN001NE1	007C	MN001NT1	00A8	MN001SIO	006C	MN001WIO	0010
MN001NE2	0084	MN001NT2	00B0	MN001SRM	0074	MN001WPG	0008
MN001NFL	0058	MN001NVD	0064	MN001SRN	0040		

MN002: RESOURCE MANAGEMENT DATA

MN002 is used to get information on resource management during processing.
MN002 is found in MONBLOKS copy.

0	MN002SQT		MN002SET	
8	MN002SFS		MN002SAP	
10	MN002SKA		MN002SUC	
18	MN002SPB		MN002SPB	
20	MN002SIB		MN002SQ3	
28	MN002Q11			
30	MN002Q12			
38	MN002Q13			
40	MN002Q14			
48	MN002Q15			
50	MN002Q16		MN002Q17	
58	MN002Q18		MN002Q19	
60	MN002Q21			
68	MN002Q22			
70	MN002Q23			
78	MN002Q24			
80	MN002Q25			
88	MN002Q26		MN002Q27	
90	MN002Q28		MN002Q29	
98	MN002MNS		MN002IBS	
A0	MN002IBM		MN002IBT	
A8	MN002SQI		MN002SQN	
B0	MN002PPI		MN002PPN	
B8	MN002Q1A			
C0	MN002Q1B	MN002Q1C	MN002Q1D	
C8	MN002Q2A			
D0	MN002Q2B	MN002Q2C	MN002Q2D	

SIZE

| RECORD LENGTH IN BYTES (MN002LEN) D8

Disp	Name	Len	Key	Description
0	MN002SQT	4		DMKSCHQT AVERAGE QUEUE DELAY
4	MN002SET	4		DMKSCHET AVERAGE ELIGIBLE LIST TIME
8	MN002SFS	4		DMKSCHFS AVERAGE UTILIZATION
C	MN002SAP	4		DMKSCHAP AVERAGE RESIDENT PAGE REQUESTS
10	MN002SKA	4		DMKSCHKA AVERAGE DESIRED CPU/PAGE READ
14	MN002SUC	4		DMKSCHUC AVERAGE CPU OVERHEAD/PAGE READ
18	MN002SPB	8		DMKSCHPB CPU USE AND PAGING BIAS
20	MN002SIB	4		DMKSCHIB INTERACTIVE BIAS
24	MN002SQ3	4		DMKSCHQ3 COUNT OF Q3 USERS
	Q1 Statistics			
28	MN002Q11	8		VMQTOD IN-QUEUE COUNT
30	MN002Q12	8		VMQELP IN-QUEUE TIME
38	MN002Q13	8		VMQWT ELIGIBLE LIST TIME
40	MN002Q14	8		VMQCPU IN-QUEUE CPU USE
48	MN002Q15	8		VMQPGS ESTIMATED AVERAGE PAGE-SECONDS
50	MN002Q16	4		VMQCNT COUNT OF QUEUE DROPS
54	MNJ02Q17	4		VMQPRD IN-QUEUE PAGE READS
58	MN002Q18	4		VMQSTL IN-QUEUE PAGE STEALS
5C	MN002Q19	4		VMQDRPOP NUMBER OF TIMES QUEUE-DROP
	Q2 Statistics			
60	MN002Q21	8		VMQTOD IN-QUEUE COUNT
68	MN002Q22	8		VMQELP IN-QUEUE TIME
70	MN002Q23	8		VMQWT ELIGIBLE LIST TIME
78	MN002Q24	8		VMQCPU IN-QUEUE CPU USE
80	MN002Q25	8		VMQPGS ESTIMATED AVERAGE PAGE-SECONDS
88	MN002Q26	4		VMQCNT COUNT OF QUEUE DROPS
8C	MN002Q27	4		VMQPRD IN-QUEUE PAGE READS
90	MN002Q28	4		VMQSTL IN-QUEUE STEALS
94	MN002Q29	4		VMQDRPOP NUMBER OF TIMES QUEUE-DROP
	Interactive Buffer Statistics			

```
   98    MN002MNS    4       MINIMUM NUMBER OF SWAPSETS
   9C    MN002IBS    4       TOTAL PROJECTED INTERACTIVE BUFFER SIZE
   A0    MN002IBM    4       MAXIMUM INTERACTIVE BUFFER SIZE
   A4    MN002IBT    4       MAXIMUM TIME IN INTERACTIVE BUFFER
   A8    MN002SQI    4       NO LONGER MAINTAINED
   AC    MN002SQN    4       NO LONGER MAINTAINED
   B0    MN002PPI    4       NUMBER OF SWAPSETS PREPAGED FOR Q1
   B4    MN002PPN    4       NUMBER OF SWAPSETS PREPAGED FOR Q2
      More Q1 Statistics
   B8    MN002Q1A    8       VMQDRCUM TOTAL Q1 Q-DROP DELAY
   C0    MN002Q1B    4       VMQDRCAN NUMBER OF TIMES Q-DROP
   C4    MN002Q1C    2       NUMBER OF TIMES CHECK 1 HIT
|  C6    MN002Q1D    2       NUMBER OF TIMES CHECK 2 HIT
|     More Q2 Statistics
|  C8    MN002Q2A    8       VMQDRCUM TOTAL Q2 Q-DROP DELAY
|  D0    MN002Q2B    4       VMQDRCAN NUMBER OF TIMES Q-DROP
|  D4    MN002Q2C    2       NUMBER OF TIMES CHECK 1 HIT
|  D6    MN002Q2D    2       NUMBER OF TIMES CHECK 2 HIT
|  D8    MN002END            END OF RECORD
```

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MN002END 00D6  D8    MN002Q11 0028  ..  | MN002Q2C 00D4  ..    MN002SAP 000C  ..
MN002IBM 00A0  ..    MN002Q12 0030  ..  | MN002Q2D 00D6  ..    MN002SET 0004  ..
MN002IBS 009C  ..    MN002Q13 0038  ..    MN002Q21 0060  ..    MN002SFS 0008  ..
MN002IBT 00A4  ..    MN002Q14 0040  ..    MN002Q22 0068  ..    MN002SIB 0020  ..
MN002LEN ....  D8    MN002Q15 0048  ..    MN002Q23 0070  ..    MN002SKA 0010  ..
MN002MNS 0098  ..    MN002Q16 0050  ..    MN002Q24 0078  ..    MN002SPB 0018  ..
MN002PPI 00B0  ..    MN002Q17 0054  ..    MN002Q25 0080  ..    MN002SQI 00A8  ..
MN002PPN 00B4  ..    MN002Q18 0058  ..    MN002Q26 0088  ..    MN002SQN 00AC  ..
MN002Q1A 00B8  ..    MN002Q19 005C  ..    MN002Q27 008C  ..    MN002SQT 0000  ..
MN002Q1B 00C0  ..    MN002Q2A 00C8  ..    MN002Q28 0090  ..    MN002SQ3 0024  ..
| MN002Q1C 00C4  ..    MN002Q2B 00D0  ..    MN002Q29 0094  ..    MN002SUC 0014  ..
| MN002Q1D 00C6  ..
```

MN003: SYSTEM EXTENSION EXCLUSIVE MIGRATION DATA

MN003 contains page and swap table migration data as well as the count of 370F privilege operations. MN003 is found in MONBLOKS copy.

0	MN003CMG	MN003TLH
8	MN003TLQ	MN003TUS
10	MN003MBC	MN003CRM
18	MN003NUM	MN003NSM
20	MN003NPM	MN003NDM
28	MN003CSR	MN003CSM
30	MN003NTM	MN003NTR
38	MN003CPT	////// MN003RSV //////
40	MN003CTP	MN003CIP
48	MN003CDM	MN003CDK
50	MN003CPC	MN003CPL
58	MN003CPN	MN003CIE
60	MN003CRE	MN003CSE
68	MN003PNS	MN003PNP
70	MN003NSW	MN003SGF
78	MN003CDL	MN003CDC
80	MN003CSL	MN003SWP

SIZE

MN003 SIZE IN BYTES (MN003LEN) 88

Disp	Name	Len	Key	Description
0	MN003CMG	4		NUMBER OF CALLS TO MIGRATE
4	MN003TLH	4		TIMES MIGRATION LIMIT HALVED
8	MN003TLQ	4		TIMES LIMIT WAS QUARTERED
C	MN003TUS	4		TIMES A USER WAS SELECTED
10	MN003MBC	4		NUMBER MIGRATIONS BY COMMAND

14	MN003CRM	4	NUMBER CALLS RESULTING IN MIGRATION
18	MN003NUM	4	NUMBER USERS MOVED
1C	MN003NSM	4	NUMBER SEGMENTS MOVED
20	MN003NPM	4	NUMBER PAGES MOVED
24	MN003NDM	4	NUMBER FULL DISKS MOVED
28	MN003CSR	4	CALLS TO RESTORE SWAPTABLE
2C	MN003CSM	4	CALLS TO MIGRATE SWAPTABLE
30	MN003NTM	4	NUMBER OF TABLES MIGRATED
34	MN003NTR	4	NUMBER OF TABLES RESTORED
38	MN003CPT	4	CALLS TO PSEUDO TRANSLATOR
3C	MN003RSV	4	RESERVED FOR IBM USE
40	MN003CTP	4	NUMBER TPROT INSTRUCTIONS SIMULATED
44	MN003CIP	4	TOTAL IPTE INSTRUCTIONS SIMULATED
48	MN003CDM	4	NUMBER PREFERRED PP PAGES AVAILABLE
4C	MN003CDK	4	NUMBER PREFERRED PG PAGES AVAILABLE
50	MN003CPC	4	NUMBER PREFERRED PG PAGES ALLOCATED
54	MN003CPL	4	LIMIT OF PREFERRED PG PAGES
58	MN003CPN	4	% VALUE FOR SET SRM PGFULL
5C	MN003CIE	4	INSTRUCTIONS SIMULATED COUNT ('B229') ISKE
60	MN003CRE	4	INSTRUCTIONS SIMULATED COUNT ('B22A') RRBE
64	MN003CSE	4	INSTRUCTIONS SIMULATED COUNT ('B22B') SSKE
68	MN003PNS	4	PST PAGES (TYPE=SW) NOT IN USE
6C	MN003PNP	4	PST PAGES (TYPE=PP) NOT IN USE
70	MN003NSW	4	SSBLOKS WHICH HAVE MIGRATED
74	MN003SGF	4	SEGMENT FAULTS DURING MIGRATION
78	MN003CDL	4	LIMIT OF PP PAGES
7C	MN003CDC	4	NUMBER OF PP PAGES ALLOCATED
80	MN003CSL	4	LIMIT OF SW PAGES ON EXPANDED STORAGE
84	MN003SWP	4	NUMBER OF SW PAGES MIGRATED

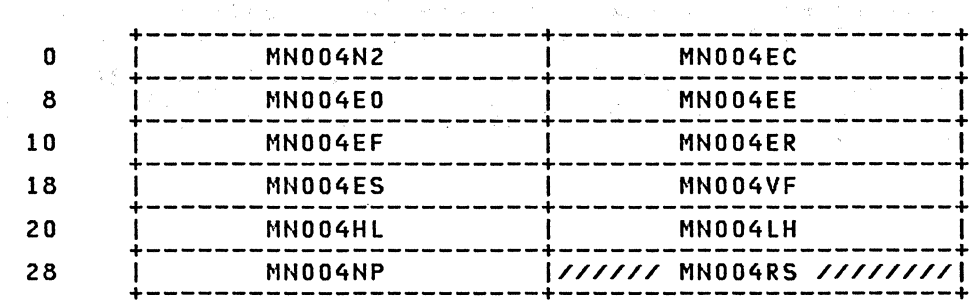
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN003CDK	004C	MN003CPN	0058	MN003LEN	13	MN003NUM	0018
MN003CDC	007C	MN003CPT	0038	MN003MBC	0010	MN003PNP	006C
MN003CDL	0078	MN003CRE	0060	MN003NDM	0024	MN003PNS	0068
MN003CDM	0048	MN003CRM	0014	MN003NPM	0020	MN003RSV	003C
MN003CIE	005C	MN003CSE	0064	MN003NSM	001C	SGF	0074
MN003CIP	0044	MN003CSL	0080	MN003NSW	0070	MN003TLH	0004
MN003CMG	0000	MN003CSM	002C	MN003NTM	0030	MN003TLQ	0008
MN003CPC	0050	MN003CSR	0028	MN003NTR	0034	MN003TUS	000C
MN003CPL	0054	MN003CTP	0040				

MN004: EXTENDED STORAGE PAGE MIGRATION DATA

MN004 is used to record information relating to page migration and interchange between the greater than 16 megabyte real storage area and the storage area below 16 megabytes. MN004 is found in MONBLOKS copy.



SIZE

MN004 SIZE IN BYTES (MN004LEN) 30

Disp	Name	Len	Key	Description
0	MN004N2	4		NUMBER OF PAGES ON >16MB FREELIST
4	MN004EC	4		NUMBER OF NONPREFERRED PAGE CALLS
8	MN004E0	4		NUMBER TIMES >16MB FREELIST EMPTY
C	MN004EE	4		PAGES EXAMINED IN >16M CORTABLE SCAN
10	MN004EF	4		NUMBER OF FLUSHLIST PAGES RECLAIMED
14	MN004ER	4		NUMBER OF FREELIST PAGES RECLAIMED
18	MN004ES	4		PAGE STEALS FROM IN QUEUE USERS >16MB
1C	MN004VF	4		NUMBER OF VFAULT CALLS TO PTRANS
20	MN004HL	4		PAGES MOVED FROM >16MB TO <16MB
24	MN004LH	4		PAGES MOVED FROM <16MB TO >16MB
28	MN004NP	4		AVAILABLE NUMBER OF >16MB PAGES
2C	MN004RS	4		RESERVED FOR IBM USE

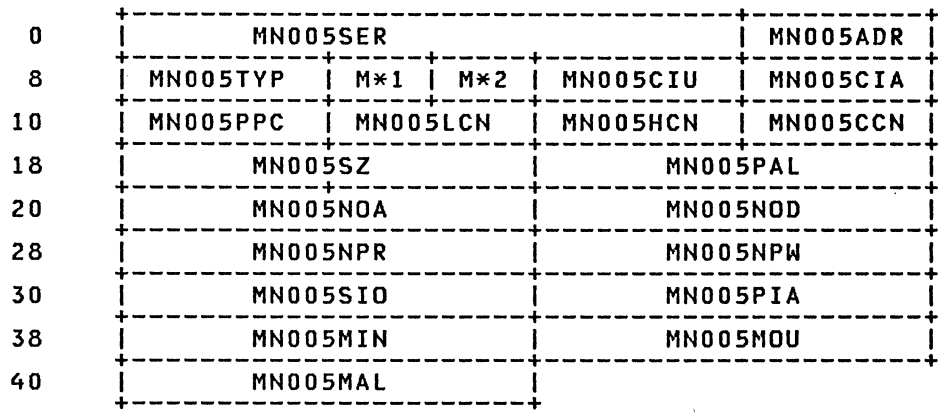
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN004EC	0004	MN004ES	0018	MN004LEN	0000 30	MN004N2	0000
MN004EE	000C	MN004E0	0008	MN004LH	0024	MN004RS	002C
MN004EF	0010	MN004HL	0020	MN004NP	0028	MN004VF	001C
MN004ER	0014						

MN005: SYSTEM-OWNED DASD USE

MN005 contains data on a DASD area allocated for swapping, paging or spooling. This information shows the DASD allocation when the Monitor is started and at intervals thereafter. MN005 is found in MONBLOKS copy.



SIZE

LENGTH OF RECORD IN BYTES (MN005LEN) 44

Disp	Name	Len	Key	Description
0	MN005SER	6		DEVICE VOLUME SERIAL
6	MN005ADR	2		DEVICE ADDRESS
8	MN005TYP	2		DEVICE TYPE
A	MN005FLG	1	M*1	ALOCBLOK FLAG BYTE
B	MN005DIR	1	M*2	ALOCCSR (DIRECTION OF SCAN)
C	MN005CIU	2		NUMBER OF CYLINDERS IN USE
E	MN005CIA	2		NUMBER OF CYLINDERS IN AREA
10	MN005PPC	2		NUMBER OF PAGES PER CYLINDER
12	MN005LCN	2		LOWEST CYLINDER NUMBER
14	MN005HCN	2		HIGHEST CYLINDER NUMBER
16	MN005CCN	2		CURRENT CYLINDER NUMBER
18	MN005SZ	4		SWAP SET SIZE
1C	MN005PAL	4		NUMBER OF PAGES IN USE

20	MN005NOA	4	NUMBER OF ALLOCATIONS
24	MN005NOD	4	NUMBER OF DEALLOCATIONS
28	MN005NPR	4	NUMBER OF PAGES READ
2C	MN005NPW	4	NUMBER OF PAGES WRITTEN
30	MN005SIO	4	NUMBER OF SIO'S TO AREA
34	MN005PIA	4	NUMBER OF PAGES IN AREA
38	MN005MIN	4	NUMBER OF PAGES MIGRATED IN
3C	MN005MOU	4	NUMBER OF PAGES MIGRATED OUT
40	MN005MAL	4	NUMBER OF ALLOCATIONS CAUSED BY MIGRATION

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN005ADR 0006	MN005HCN 0014	MN005NOD 0024	MN005PPC 0010
MN005CCN 0016	MN005LCN 0012	MN005NPR 0028	MN005SER 0000
MN005CIA 000E	MN005MAL 0040	MN005NPW 002C	MN005SIO 0030
MN005CIU 000C	MN005MIN 0038	MN005PAL 001C	MN005SZ 0018
MN005DIR 000B	MN005MOU 003C	MN005PIA 0034	MN005TYP 0008
MN005FLG 000A	MN005NOA 0020		

MN006: SYSTEM SWAPPING ACTIVITY

MN006 is used for the system-wide Swapping data monitor record. MN006 is found in MONBLOKS copy.

SWAP DATA

0	///// MN0061C ///////	///// MN0062C //////
8	///// MN0063C ///////	///// MN0064C //////
10	///// MN0065C ///////	///// MN0061P //////
18	///// MN0062P ///////	///// MN0063P //////
20	///// MN0064P ///////	///// MN0065P //////
28	MN006S1	MN006S2
30	///// MN006IL ///////	///// MN006IG //////
38	///// MN006TI ///////	///// MN006TB //////
40	MN0060C	MN0060U
48	MN0060P	MN0060S
50	MN0060N	///// MN006IC //////
58	///// MN006IT ///////	///// MN006IS //////

Disp	Name	Len	Key	Description
0	MN0061C	4		RESERVED FOR IBM USE
4	MN0062C	4		RESERVED FOR IBM USE
8	MN0063C	4		RESERVED FOR IBM USE
C	MN0064C	4		RESERVED FOR IBM USE
10	MN0065C	4		RESERVED FOR IBM USE
14	MN0061P	4		RESERVED FOR IBM USE
18	MN0062P	4		RESERVED FOR IBM USE
1C	MN0063P	4		RESERVED FOR IBM USE
20	MN0064P	4		RESERVED FOR IBM USE
24	MN0065P	4		RESERVED FOR IBM USE
28	MN006S1	4		TOTAL CALLS TO SELPAG

	2C	MN006S2	4	NO. OF SELPAG CALLS WHILE EXTENDING
	30	MN006IL	4	RESERVED FOR IBM USE
	34	MN006IG	4	RESERVED FOR IBM USE
	38	MN006TI	4	RESERVED FOR IBM USE
	3C	MN006TB	4	RESERVED FOR IBM USE
	40	MN0060C	4	NO. OF CALLS TO DMKSWAPO
	44	MN0060U	4	NO. OF USERS PHYSICALLY SWAPPED OUT
	48	MN0060P	4	PAGES PHYS. SWAPPED OUT TO PAGE AREA
	4C	MN0060S	4	PAGES PHYS. SWAPPED OUT TO SWAP AREA
	50	MN0060N	4	NO. OF NULL PHYSICAL SWAP OUTS
	54	MN006IC	4	RESERVED FOR IBM USE
	58	MN006IT	4	RESERVED FOR IBM USE
	5C	MN006IS	4	RESERVED FOR IBM USE

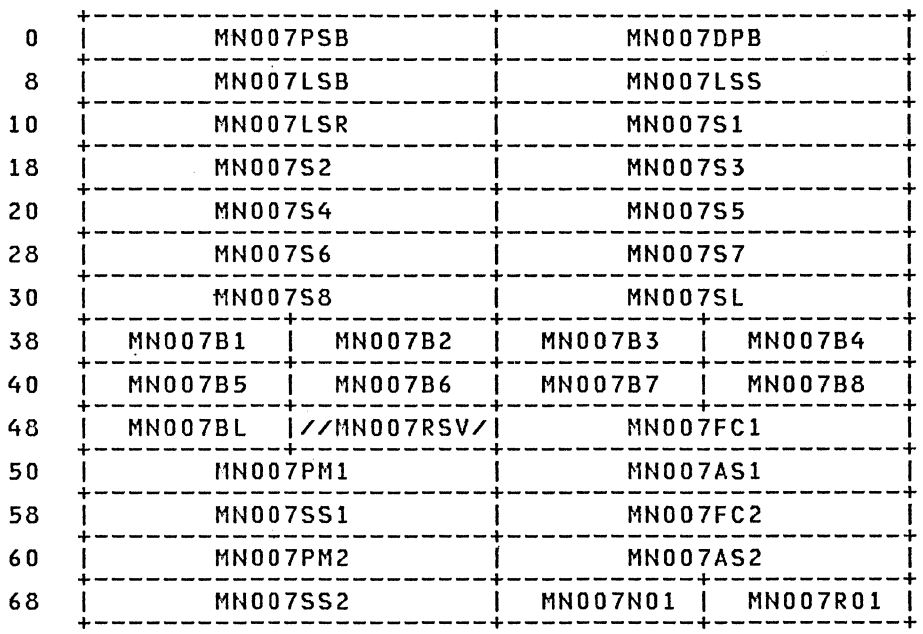
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN006IC	0054	..	MN0060N	0050	..	MN006TI	0038	..	MN0063C	0008	..
MN006IG	0034	..	MN0060P	0048	..	MN006TB	003C	..	MN0063P	001C	..
MN006IL	0030	..	MN0060S	004C	..	MN0061C	0000	..	MN0064C	000C	..
MN006IS	005C	..	MN0060U	0044	..	MN0061P	0014	..	MN0064P	0020	..
MN006IT	0058	..	MN006S1	0028	..	MN0062C	0004	..	MN0065C	0010	..
MN0060C	0040	..	MN006S2	002C	..	MN0062P	0018	..	MN0065P	0024	..

MN007: MONITOR PERFORMANCE CLASS RECORD

MN007 contains data on the use of free storage by the system. MN007 is found in MONBLOKS copy.



SIZE

LENGTH OF BASIC PART OF RECORD (MN007LEN) 6C

Disp	Name	Len	Key	Description
	SYSTEM-WIDE COUNTS			
000	MN007PSB	004		NUMBER OF AVAILABLE BLOCKS IN PRIME FREE
004	MN007DPB	004		NUMBER OF DPA PAGES FOR CACHE-ALIGNED FREE
	GLOBAL FREE STORAGE (DMKFRELS) CHAIN			
008	MN007LSB	004		NUMBER OF BLOCKS IN DMKFRELS CHAIN
00C	MN007LSS	004		NUMBER OF SEARCHES FOR DMKFREL CHAIN
010	MN007LSR	004		NUMBER OF REQUESTS FOR NON-SUBPOOL BLOCKS
	TOTAL SIZE (IN BYTES) OF BLOCKS			

014	MN007S1	004	UP TO 1K BYTES
018	MN007S2	004	OVER 1K BYTES, UP TO 2K BYTES
01C	MN007S3	004	OVER 2K BYTES, UP TO 3K BYTES
020	MN007S4	004	OVER 3K BYTES, UP TO 4K BYTES
024	MN007S5	004	OVER 4K BYTES, UP TO 5K BYTES
028	MN007S6	004	OVER 5K BYTES, UP TO 6K BYTES
02C	MN007S7	004	OVER 6K BYTES, UP TO 7K BYTES
030	MN007S8	004	OVER 7K BYTES, UP TO 8K BYTES
034	MN007SL	004	OVER 8K BYTES
	NUMBER OF AVAILABLE BLOCKS		
038	MN007B1	002	UP TO 1K BYTES
03A	MN007B2	002	OVER 1K BYTES, UP TO 2K BYTES
03C	MN007B3	002	OVER 2K BYTES, UP TO 3K BYTES
04E	MN007B4	002	OVER 3K BYTES, UP TO 4K bYTES
040	MN007B5	002	OVER 4K BYTES, UP TO 5K BYTES
042	MN007B6	002	OVER 5K BYTES, UP TO 6K BYTES
044	MN007B7	002	OVER 6K BYTES, UP TO 7K BYTES
046	MN007B8	002	OVER 7K BYTES, UP TO 8K BYTES
048	MN007BL	002	OVER 8K BYTES
04A	MN007RSV	002	RESERVED FOR IBM USE
	IPL PROCESSOR STATISTICS		
04C	MN007FC1	004	NUMBER OF CALLS TO DMKFREE (IPL)
050	MN007PM1	004	NUMBER OF PRIME MISSES (IPL)
054	MN007AS1	004	NUMBER OF ATTEMPTED SUBPOOL STEALS (IPL)
058	MN007SS1	004	NUMBER OF SUBPOOL BLOCKS STOLEN (IPL)
	NON-IPL PROCESSOR STATISTICS		
05C	MN007FC2	004	NUMBER OF CALLS TO DMKFREE (NON-IPL)
060	MN007PM2	004	NUMBER OF PRIME MISSES (NON-IPL)
064	MN007AS2	004	NUMBER OF ATTEMPTED SUBPOOL STEALS (NON-IPL)
068	MN007SS2	004	NUMBER OF SUBPOOL BLOCKS STOLEN (NON-IPL)
	NON-EXTENDED SUBPOOL STATISTICS		
06C	MN007N01	002	NUMBER OF AVAILABLE BLOCKS IN FIRST SUBPOOL

06E MN007R01 002 NUMBER OF REQUESTS FOR BLOCKS IN FIRST SUBPOOL

THESE FIELDS ARE REPEATED FOR EACH SUBPOOL DEFINED IN THE SYSTEM

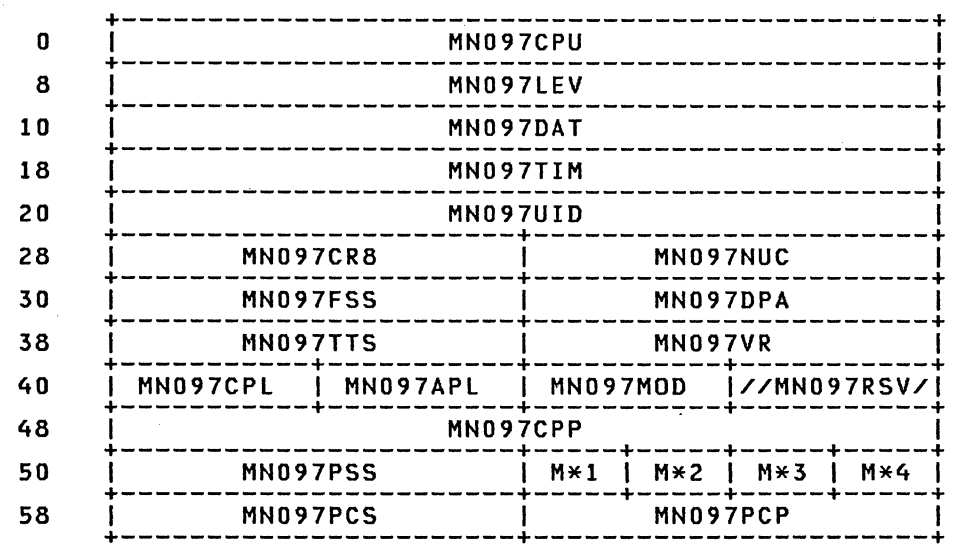
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN007AS1	0054	MN007B7	0044	MN007N01	006C	MN007S1	0014
MN007AS2	0064	MN007B8	0046	MN007PM1	0050	MN007S2	0018
MN007BL	0048	MN007DPB	0004	MN007PM2	0060	MN007S3	001C
MN007B1	0038	MN007FC1	004C	MN007PSB	0000	MN007S4	0020
MN007B2	003A	MN007FC2	005C	MN007RSV	004A	MN007S5	0024
MN007B3	003C	MN007LEN	6C	MN007R01	006E	MN007S6	0028
MN007B4	003E	MN007LSB	0008	MN007SL	0034	MN007S7	002C
MN007B5	0040	MN007LSR	0010	MN007SS1	0058	MN007S8	0030
MN007B6	0042	MN007LSS	000C	MN007SS2	0068		

MN097: MONITOR HEADER RECORD

MN097 provides header information for a file that contains data accumulated by the Monitor. This is the first record of the file. MN097 is found in MONBLOKS copy.



SIZE

TAPE HEADER RECORD LENGTH IN BYTES (MN097LEN) 60

Disp	Name	Len	Key	Description
0	MN097CPU	8		PROCESSOR SERIAL / MODEL NUMBER
8	MN097LEV	8		SYSTEM LEVEL
10	MN097DAT	8		CURRENT DATE
18	MN097TIM	8		CURRENT TIME
20	MN097UID	8		USER STARTING THE MONITOR
28	MN097CR8	4		VALUE OF CR8
2C	MN097NUC	4		NUCLEUS SIZE
30	MN097FSS	4		FREE STORAGE SIZE
34	MN097DPA	4		DYNAMIC PAGING AREA SIZE
38	MN097TTS	4		TRACE TABLE SIZE
3C	MN097VR	4		V=R AREA SIZE

40	MN097CPL	2		CPU LOGICAL ADDRESS
42	MN097APL	2		APU LOGICAL ADDRESS
44	MN097MOD	2		GENERATED SYSTEM MODE
46	MN097RSV	2		RESERVED FOR IBM USE
48	MN097CPP	8		PROGRAM PRODUCT MAP
50	MN097PSS	4		PRIME FREE STORAGE SIZE
54	MN097LSN	1	M*1	NUMBER OF LOWER SUBPOOLS
55	MN097LSI	1	M*2	LOWER SUBPOOL SIZE INCREMENT
56	MN097USN	1	M*3	NUMBER OF UPPER SUBPOOLS
57	MN097USI	1	M*4	UPPER SUBPOOL SIZE INCREMENT
68	MN097PCS	4		PST PAGES CONFIGURED (TYPE=SW)
6C	MN097PCP	4		PST PAGES CONFIGURED (TYPE=PP)

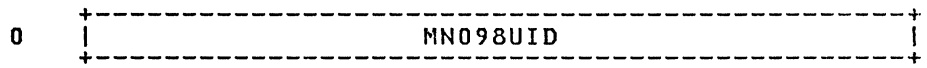
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN097APL	0042	MN097DPA	0034	MN097MOD	0044	MN097TIM	0018
MN097CPL	0040	MN097FSS	0030	MN097NUC	002C	MN097TTS	0038
MN097CPP	0048	MN097LEN	58	MN097PCP	005C	MN097UID	0020
MN097CPU	0000	MN097LEV	0008	MN097PCS	0058	MN097USI	0057
MN097CR8	0028	MN097LSI	0055	MN097PSS	0050	MN097USN	0056
MN097DAT	0010	MN097LSN	0054	MN097RSV	0046	MN097VR	003C

MN098: MONITOR TRAILER RECORD

MN098 contains the userid of the user who has terminated current Monitor activity. This is the last record of the file. MN098 is found in MONBLOKS copy.



SIZE

LENGTH OF MONITOR TRAILER RECORD IN BYTES (MN098LEN) 08

Disp	Name	Len	Key	Description
0	MN098UID	8		USER STOPPING THE MONITOR

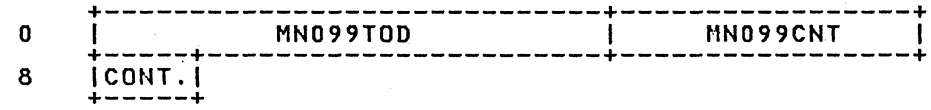
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN098LEN 08 MN098UID 0000

MN099: MONITOR SUSPENSION RECORD

MN099 contains information recorded when Monitor activity is suspended because all buffers are full and are queued for output. MN099 is found in MONBLOKS copy.



SIZE

LEN OF MONITOR SUSPENSION REC IN BYTES (MN099LEN) 09

Disp	Name	Len	Key	Description
0	MN099TOD	5		TIME OF DAY CLOCK AT SUSPENSION
5	MN099CNT	4		COUNT OF SUSPENSIONS

CROSS REFERENCE

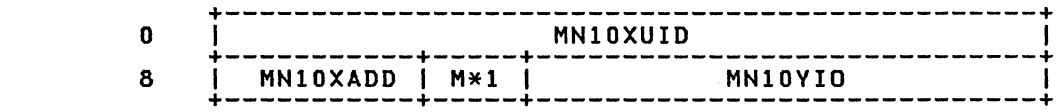
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN099CNT 0005 MN099LEN 0000 09 MN099TOD 0000

MN10X: MONITOR RESOURCE RESPONSE CLASS RECORD

MN10X contains information of the number of input or output console line transmissions for a given userid. MN10X is found in MONBLOKS copy.



SIZE

SIZE OF LONG RECORD HEADER IN BYTES (MN10YLEN) B
SIZE OF SHORT RECORD HEADER IN BYTES (MN10XLEN) A

Disp	Name	Len	Key	Description
0	MN10XUID	8		USERID
8	MN10XADD	2		TERMINAL LINE ADDRESS
A	MN10YCNT	1	M*1	BYTE COUNT FOR THE FOLLOWING LINE
B	MN10YIO			INPUT/OUTPUT LINE STARTS HERE

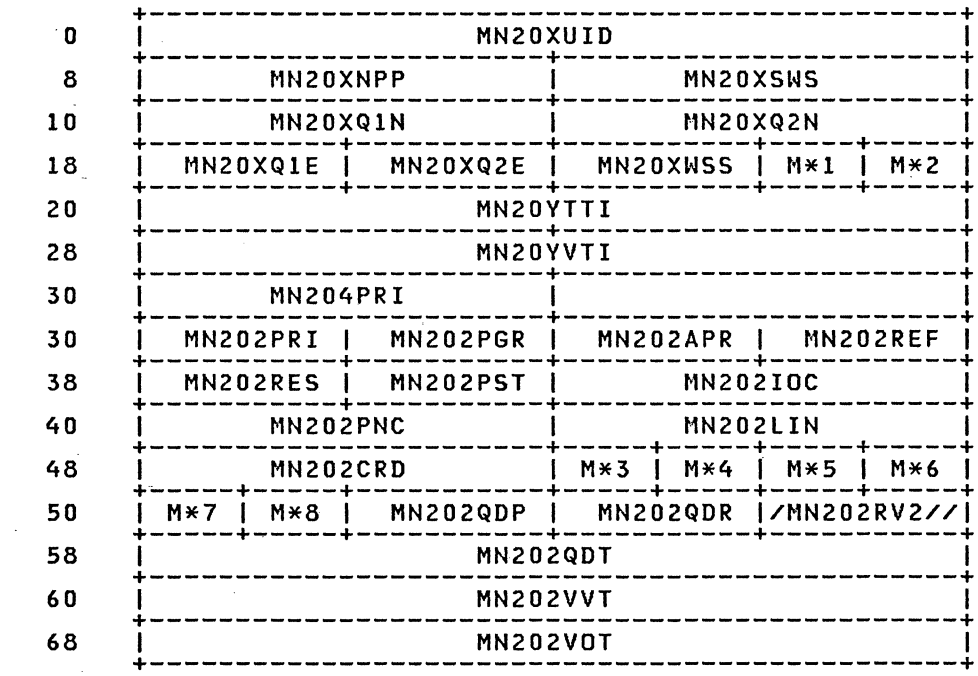
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MN10XADD 0008       MN10XUID 0000       MN10YIO  000B       MN10YLEN 0000 0B
MN10XLEN      0A    MN10YCNT 000A
```

MN20X: MONITOR SCHEDULER CLASS RECORD

MN20X is used for three Schedule class Monitor records: Drop from Queue, Add to Queue, and Add to Eligible List. It also contains specific information from the VMBLOK on why a user was dropped from Queue. MN20X is found in MONBLOKS copy.



SIZE

LENGTH OF CL 2 CODE 2 REC (DROP Q) (MN202LEN) 70
LENGTH OF CL 2 CODE 4 RECORD (MN204LEN) 34
LENGTH OF CL 2 CODE 3 RECORD (ADD Q) (MN203LEN) 20

Disp	Name	Len	Key	Description
000	MN20XUID	008		USERID BEING ADDED / DROPPED FROM QUEUE
008	MN20XNPP	004		NUMBER OF SYSTEM PAGABLE PAGES
00C	MN20XSWS	004		SUM OF WORKING SETS OF IN-Q USERS
010	MN20XQ1N	004		NUMBER OF USERS IN Q1
014	MN20XQ2N	004		NUMBER OF USERS IN Q2
018	MN20XQ1E	002		NUMBER OF USERS ELIGIBLE FOR Q1

01A	MN20XQ2E	002		NUMBER OF USERS ELIGIBLE FOR Q2
01C	MN20XWSS	002		USERS NEW PROJECTED WORKING SET SIZE
01E	MN20XQNM	001	M*1	QUEUE BEING ADDED / DROPPED TO / FROM
01F	MN20XPRC	001	M*2	CP TRACE TABLE PROCESSOR ID
020	MN20YTTI	008		CURRENT VMTTIME (CP SIMULATION TIME)
028	MN20YVTI	008		CURRENT VMVTIME (USER VIRTUAL TIME)
030	MN204PRI	004		ELIGIBLE LIST PRIORITY
	ORG MN204PRI			BACK-UP TO PRIORITY FIELD
030	MN202PRI	002		DISPATCH PRIORITY
032	MN202PGR	002		PAGES READ WHILE IN QUEUE
034	MN202APR	002		SUM OF PAGE READS RESIDENT AT EACH PAGE
036	MN202REF	002		NUMBER OF PAGES REFERENCED WHILE IN QUEUE
038	MN202RES	002		CURRENT NUMBER OF PAGES RESIDENT
03A	MN202PST	002		NUMBER OF PAGES STOLEN WHILE IN QUEUE
03C	MN202IOC	004		VIRTUAL NON SPOOL SIO COUNT
040	MN202PNC	004		VIRTUAL CARDS PUNCHED
044	MN202LIN	004		VIRTUAL LINES PRINTED
048	MN202CRD	004		VIRTUAL CARDS READ
04C	MN202LPR	001	M*3	LAST PROCESSOR EXECUTED ON
04D	MN202VMR	001	M*4	VMRSTAT FROM VMBLOK
04E	MN202VMD	001	M*5	VMDSTAT FROM VMBLOK
04F	MN202VMO	001	M*6	VMOSTAT FROM VMBLOK
050	MN202VMQ	001	M*7	VMQSTAT FROM VMBLOK
051	MN202SFG	001	M*8	ARP SANITY CHECK FLAGS
052	MN202QDP	002		NUMBER OF TIMES QUEUE-DROP TIMER EXPIRED
054	MN202QDR	002		NUMBER OF TIMES QUEUE-DROP TIMER RESET
056	MN202RV2	002		RESERVED FOR IBM USE
058	MN202QDT	008		TOTAL TIME HELD IN QUEUE BECAUSE OF QUEUE-DROP DELAY TIMER
060	MN202VVT	008		VIRTUAL VECTOR FACILITY TIME
060	MN202VRL	008		LENGTH FOR CLEARING TVF FIELDS
068	MN202VOT	008		CP OVERHEAD VECTOR FACILITY TIME

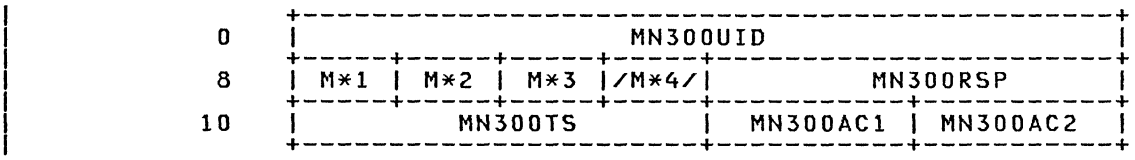
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN20XNPP	0008	MN20YTTI	0020	MN202PGR	0032	MN202SFG	0051
MN20XPRC	001F	MN20YVTI	0028	MN202PNC	0040	MN202VMD	004E
MN20XQNM	001E	MN202APR	0034	MN202PRI	0030	MN202VMO	004F
MN20XQ1E	0018	MN202CRD	0048	MN202PST	003A	MN202VMQ	0050
MN20XQ1N	0010	MN202IOC	003C	MN202QDP	0052	MN202VMR	004D
MN20XQ2E	001A	MN202LEN	0000 60	MN202QDR	0054	MN202VOT	0068
MN20XQ2N	0014	MN203LEN	0000 20	MN202QDT	0058	MN202VRL	0060
MN20XSWS	000C	MN204LEN	0000 34	MN202REF	0036	MN202VVT	0060
MN20XUID	0000	MN202LIN	0044	MN202RES	0038	MN204PRI	0030
MN20XWSS	001C	MN202LPR	004C	MN202RV2	0056		

MN300: MONITOR CLASS RECORD

MN300 is used for the logical swapout record. MN300 is found in MONBLOKS copy.



Disp	Name	Len	Key	Description
000	MN300UID	008		USERID BEING LOGICALLY SWAPPED
008	MN300SST	001	M*1	VMSWSTAT FROM VMBLOK
009	MN300FL1	001	M*2	VMSWPFL1 FROM VMBLOK
00A	MN300FL2	001	M*3	VMSWPFL2 FROM VMBLOK
00B	MN300RSV	001	M*4	RESERVED FOR IBM USE
00C	MN300RSP	004		NUMBER OF RESIDENT SWAPPABLE PAGES
010	MN300TS	004		RESERVED FOR IBM USE
014	MN300AC1	002		RESERVED FOR IBM USE
016	MN300AC2	002		RESERVED FOR IBM USE

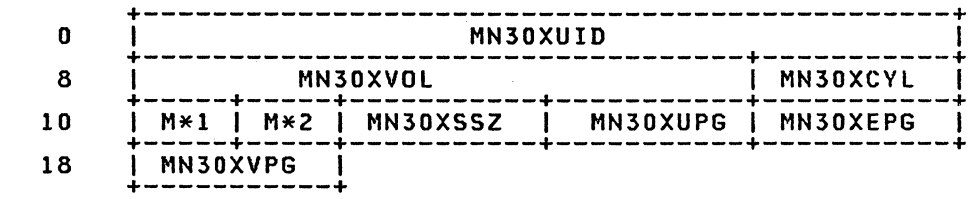
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN300AC1 0014	MN300FL2 000A	MN300RSV 000B	MN300TS 0010
MN300AC2 0016	MN300RSP 000C	MN300SST 0008	MN300UID 0000
MN300FL1 0009			

MN30X: MONITOR PHYSICAL SWAP RECORD

MN30X is used for four swap class monitor records: Physical Swap-out Start, Physical Swap-out End, Physical Swap-in Start, and Physical Swap-in End. MN30X is found in MONBLOKS copy.



SIZE

LENGTH OF RECORD (MN30XLEN) 1A

Disp	Name	Len	Key	Description
000	MN30XUID	008		USERID BEING PHYSICALLY SWAPPED
008	MN30XVOL	006		VOLUME LABEL OF SWAP AREA
00E	MN30XCYL	002		CYLINDER NUMBER FOR SWAP SET
010	MN30XPAG	001	M*1	PAGE NUMBER IN CYLINDER
011	MN30XFLG	001	M*2	SWAP SET BLOCK FLAGS (SSBFLAG)
012	MN30XSSZ	002		SWAP SET SIZE
014	MN30XUPG	002		NUMBER OF PAGES IN SWAP SET FROM <16 MEGABYTE AREA
016	MN30XEPG	002		NUMBER OF PAGES IN SWAP SET FROM >16 MEGABYTE AREA
018	MN30XVPG	002		FIRST VIRTUAL ADDRESS IN SWAP SET

CROSS REFERENCE

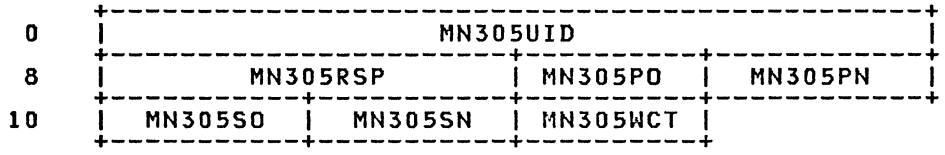
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MN30XCYL 000E       MN30XFLG 0011       MN30XSSZ 0012       MN30XVOL 0008
MN30XEND 0018 1A    MN30XLEN 0000 1A    MN30XUID 0000       MN30XVPG 0018
MN30XEPG 0016       MN30XPAG 0010       MN30XUPG 0014
```

MN305: MONITOR CLASS RECORD

MN305 is used for the logical swap-in record. MN305 is found in MONBLOKS copy.



Disp	Name	Len	Key	Description
000	MN305UID	008		USERID BEING LOGICALLY SWAPPED-IN
008	MN305RSP	004		NUMBER OF RESIDENT SWAPPABLE PAGES
00C	MN305PO	002		NUMBER OF PAGES IN SWAP SETS MARKED OLD
00E	MN305PN	002		NUMBER OF PAGES IN SWAPSETS NOT MARKED OLD
010	MN305SO	002		NUMBER OF SWAP SETS MARKED OLD
012	MN305SN	002		NUMBER OF SWAP SETS NOT MARKED OLD
014	MN305WCT	002		RESERVED FOR IBM USE

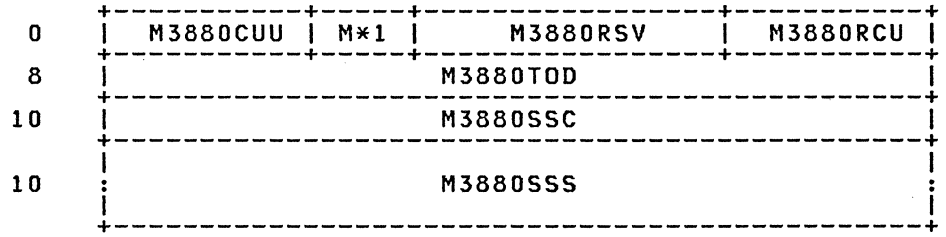
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN305RSP 0008 MN305PO 000C MN305SO 0010 MN305WCT 0014
MN305PN 000E MN305SN 0012 MN305UID 0000

MN3880DV: 3880 MONITOR CONTROL BLOCK

MN3880DV contains status data for the 3880-11 and 21 Storage Control and data on the 3880 Models 13 and 23. This block also maintains count data for the subsystem and carries a time stamp. MN3880DV is found in MONBLOKS copy.



SIZE

LENGTH WITH MN3889SSC IN BYTES (M3880RLN) 60
LENGTH WITH MN3880SSS IN BYTES (MN38801L) 38

Disp	Name	Len	Key	Description
000	M3880CUU	002		CCUU FOR THIS PARTICULAR CONTROLLER
002	M3880FLG	001	M*1	FLAG FOR 3880 MONITOR RECORD

Values defined in M3880FLG

80	M3880TOT	TOTAL SENSE SUBSYSTEM COUNTS RECORD
40	M3880NAC	NO ALTCU CODED IN RDEVICE MACRO
20	M3880SD2	DEVICE WITH TWO STORAGE DIRECTORS
10	M3880SG	3880-X3 CACHE STORAGE SUBSYSTEM
08	M3880M13	3880-13 CACHE STORAGE SUBSYSTEM

003	M3880RSV	003		RESERVED FOR IBM USE
006	M3880RCU	002		CCUU OF RELATED PATH
008	M3880TOD	008		TOD WHEN DATA WAS COLLECTED
010	M3880SSC	050		SUBSYSTEM COUNTS VERBATIM (LENGTH = MN605LN)
010	M3880SSS			SUBSYSTEM STATUS VERBATIM (LENGTH = MN605LN)

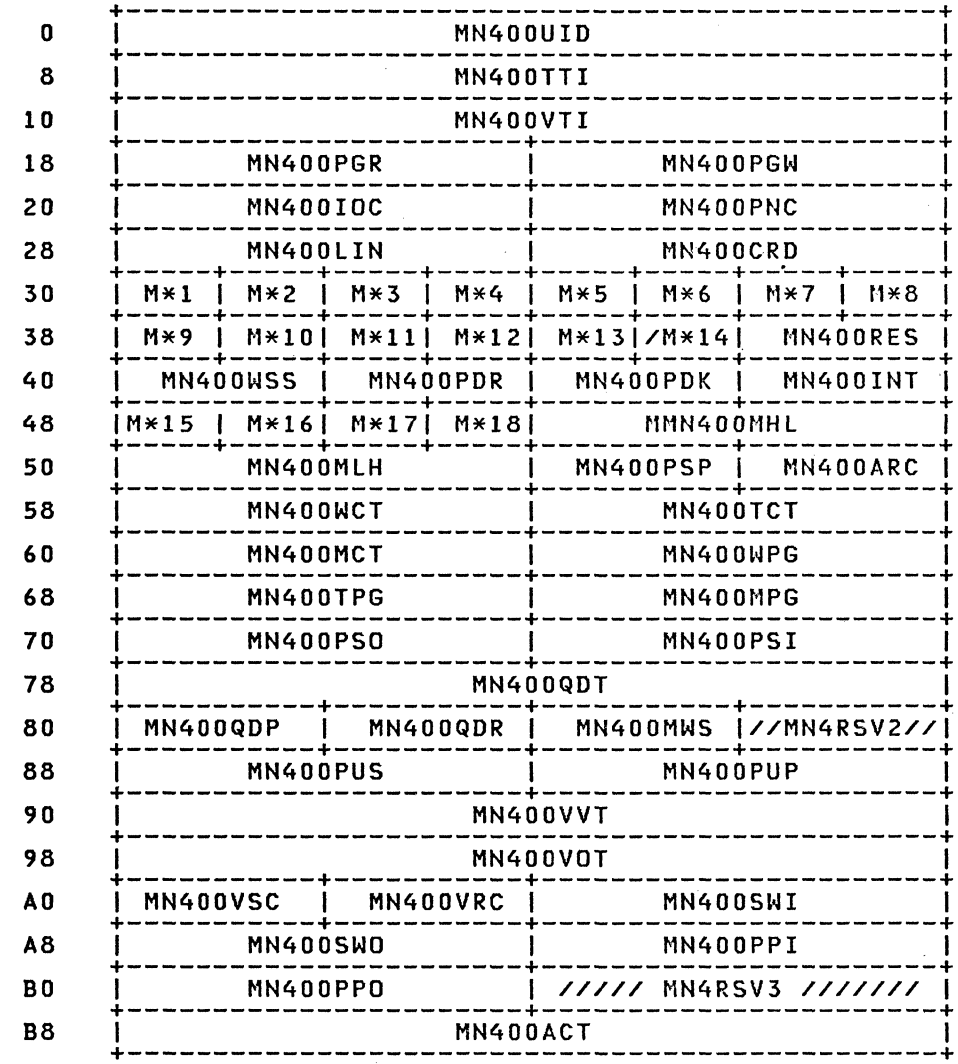
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN38801L	0000 2C	M3880RLN	0000 42	M3880SG	0002 10	M3880SC2	0000 20
M3880CUU	0000	M3880RCU	0006	M3880SSC	0010	M3880TOD	0008
M3880NAC	0002 40	M3880RSV	0003	M3880SSS	0010	M3880TOT	0000 80

MN400: MONITOR USER CLASS RECORD

MN400 provides user virtual machine statistics. MN400 is found in MONBLOKS copy.



SIZE

LENGTH OF CL 4 CODE 0 RECORD IN BYTES (MN400LEN) B8

Disp	Name	Len	Key	Description
0	MN400UID	8		USERID
8	MN400TTI	8		CURRENT VMTTIME (CP SIMULATION TIME)
10	MN400VTI	8		CURRENT VMVTIME (USER VIRTUAL TIME)
18	MN400PGR	4		TOTAL PAGE READS - THIS USER
1C	MN400PGW	4		TOTAL PAGE WRITES - THIS USER
20	MN400IOC	4		VIRTUAL NON SPOOLED SIO COUNT
24	MN400PNC	4		VIRTUAL CARDS PUNCHED
28	MN400LIN	4		VIRTUAL LINES PRINTED
2C	MN400CRD	4		VIRTUAL CARDS READ
30	MN400RST	1	M*1	USER RUNNING STATUS
31	MN400DST	1	M*2	USER DISPATCH STATUS
32	MN400OST	1	M*3	USER OPERATING STATUS
33	MN400QST	1	M*4	USER QUEUING STATUS
34	MN400PST	1	M*5	USER PROCESSING STATUS
35	MN400EST	1	M*6	USER EXECUTION STATUS
36	MN400TST	1	M*7	USER TRACING CONTROL STATUS
37	MN400MLV	1	M*8	USER MESSAGE LEVEL
38	MN400QLV	1	M*9	USER QUEUE LEVEL
39	MN400CLV	1	M*10	USER COMMAND LEVEL
3A	MN400TLV	1	M*11	USER TIMER LEVEL
3B	MN400PND	1	M*12	INTERRUPT PENDING STATUS
3C	MN400UPR	1	M*13	DIRECTORY OR 'SET' PRIORITY
3D	MN4RSV1	1	M*14	RESERVED FOR IBM USE
3E	MN400RES	2		NUMBER OF PAGES RESIDENT
40	MN400WSS	2		ESTIMATED WORKING SET SIZE
42	MN400PDR	2		PAGE SLOTS ALLOCATED IN PP AREA
44	MN400PDK	2		PAGE SLOTS ALLOCATED IN PG, PM, AND PS AREAS
46	MN400INT	2		MONITOR SAMPLING INTERVAL (SECS)
48	MN400LPR	1	M*15	LAST PROCESSOR EXECUTED ON
49	MN400SST	1	M*16	VMSWSTAT FROM VMBLOK
4A	MN400FL1	1	M*17	VMSWPFL1 FROM VMBLOK
4B	MN400FL2	1	M*18	VMSWPFL2 FROM VMBLOK

4C	MN400MHL	4	PAGE FRAME MOVES >16M TO <16M
50	MN400MLH	4	PAGE FRAME MOVES <16M TO >16M
54	MN400PSP	2	PAGE SLOTS ALLOCATED IN SW AREA
56	MN400ARC	2	ACTUAL RESERVED PAGE FRAMES FOR THIS USER
58	MN400WCT	4	RESERVED FOR IBM USE
5C	MN400TCT	4	RESERVED FOR IBM USE
60	MN400MCT	4	RESERVED FOR IBM USE
64	MN400WPG	4	RESERVED FOR IBM USE
68	MN400TPG	4	RESERVED FOR IBM USE
6C	MN400MPG	4	RESERVED FOR IBM USE
70	MN400PSO	4	NUMBER OF PAGES PHYSICALLY SWAPPED OUT FOR THIS USER
74	MN400PSI	4	NUMBER OF PAGES PHYSICALLY SWAPPED IN FOR THIS USER
78	MN400QDT	8	TOTAL TIME HELD IN QUEUE BECAUSE OF QUEUE-DROP DELAY TIMER
80	MN400QDP	2	NUMBER OF TIMES QUEUE-DROP DELAY TIMER EXPIRED
82	MN400QDR	2	NUMBER OF TIMES QUEUE-DROP DELAY TIMER RESET
84	MN400MWS	2	MINIMUM WORKING SET SIZE FOR THIS USER
86	MN4RSV2	2	RESERVED FOR IBM USE
88	MN400PUS	4	NUMBER OF USER PAGES IN PST (TYPW=SW)
8C	MN400PUP	4	NUMBER OF USER PAGES IN PST (TYPW=PP)
90	MN400VVT	8	VIRTUAL VECTOR FACILITY TIME
98	MN400VOT	8	CP OVERHEAD VECTOR FACILITY
A0	MN400VSC	2	VECTOR FACILITY SAVE COUNT
A2	MN400VRC	2	VECTOR FACILITY RESTORE COUNT
A4	MN400SWI	4	READS FROM TYPE=SW PAGING STORAGE
A8	MN400SWO	4	WRITES TO TYPE=SW PAGING STORAGE
AC	MN400PPI	4	READS FROM TYPE=PP PAGING STORAGE
B0	MN400PPO	4	WRITES TO TYPE=PP PAGING STORAGE
B4	MN4RSV3	4	RESERVED FOR IBM USE
B8	MN400ACT	8	VM ACCOUNTING NUMBER

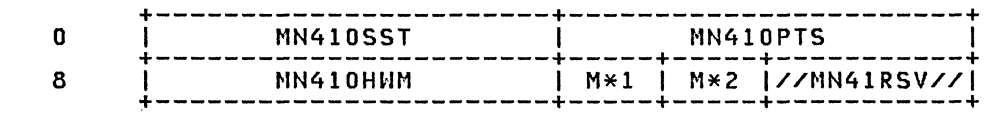
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN4RSV1	003D		MN400MCT	0060		MN400PSO	0070		MN400TLV	003A	
MN4RSV2	0086		MN400MHL	004C		MN400PSP	0054		MN400TPG	0068	
MN4RSV3	00B4		MN400MLH	0050		MN400PST	0034		MN400TST	0036	
MN400ARC	0056		MN400MLV	0037		MN400PUP	008C		MN400TTI	0008	
MN400CLV	0039		MN400MPG	006C		MN400PUS	0088		MN400UID	0000	
MN400CRD	002C		MN400MWS	0084		MN400QDP	0080		MN400UPR	003C	
MN400DST	0031		MN400OST	0032		MN400QDR	0082		MN400VOT	0098	
MN400END	0084	86	MN400PDK	0044		MN400QDT	0078		MN400VRC	00A2	
MN400EST	0035		MN400PDR	0042		MN400QLV	0038		MN400VRL	0090	
MN400FL1	004A		MN400PGR	0018		MN400QST	0033		MN400VSC	00A0	
MN400FL2	004B		MN400PGW	001C		MN400RES	003E		MN400VTI	0010	
MN400INT	0046		MN400PNC	0024		MN400RST	0030		MN400VVT	0090	
MN400IOC	0020		MN400PND	003B		MN400SST	0049		MN400WCT	0058	
MN400LEN	0000	86	MN400PPI	00AC		MN400SWI	00A4		MN400WPG	0064	
MN400LIN	0028		MN400PPO	00B0		MN400SWO	00A8		MN400WSS	0040	
MN400LPR	0048		MN400PSI	0074		MN400TCT	005C				

MN410: MONITOR SHADOW TABLE MAINTENANCE USER RECORD

MN410 provides user shadow table maintenance data including the number of steals and actual blocks in use. MN410 is found in MONBLOKS copy.



SIZE

LENGTH OF CLASS 4 CODE 1 RECORD IN BYTES (MN410LEN) 10

Disp	Name	Len	Key	Description
000	MN410SST	004		TOTAL NUMBER OF STO STEALS
004	MN410PTS	004		TOTAL NUMBER OF PAGE TABLE STEALS
008	MN410HWM	004		ADDRESS OF HIGH WATER MARK
00C	MN410NSB	001	M*1	MAXIMUM NUMBER STO BLOCKS
00D	MN410SBU	001	M*2	ACTUAL NUMBER STO BLOCKS IN USE (FOR SHADOW TABLE BLOCKS)
00E	MN410RSV	002		RESERVED FOR IBM USE

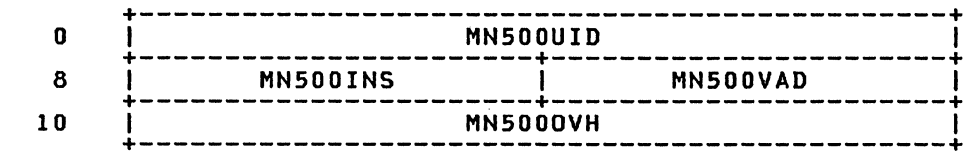
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN410HWM 0008	MN410NSB 000C	MN410RSV 000E	MN410SST 0000
MN410LEN 0000 10	MN410PTS 0004	MN410SBU 000D	

MN500: MONITOR INSTRUCTION SIMULATION CLASS RECORD

MN500 provides data on instructions simulated by CP. MN500 is found in MONBLOKS copy.



SIZE

LENGTH OF CL 4 CODE 0 RECORD IN BYTES (MN500LEN) 18

Disp	Name	Len	Key	Description
000	MN500UID	008		USERID
008	MN500INS	004		PRIVILEGED INSTRUCTION
00C	MN500VAD	004		VIRTUAL STORAGE ADDRESS OF THE INSTRUCTION
010	MN5000VH	008		CURRENT TOTAL CP SIMULATION TIME

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN500INS 0008 MN5000VH 0010 MN500UID 0000 MN500VAD 000C
MN500LEN 0000 18

MN600: MONITOR DASTAP I/O COUNT RECORD

- Header Record

MN600HDR provides the number of samples for intervals of device package. MN600HDR is found in MONBLOKS copy.

SIZE

HEADER LENGTH IN BYTES (MN600HLN) 02

Disp	Name	Len	Key	Description
0000	MN600NUM	002		NUMBER OF DEVICE DATA PACKAGES WHICH FOLLOW

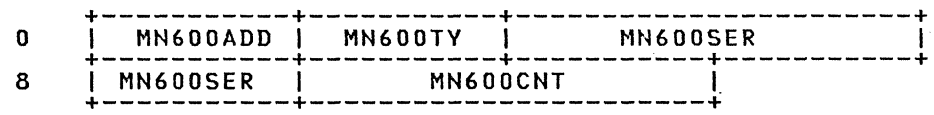
CROSS REFERENCE (Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN600HLN 0000 02 MN600NUM 0000

- I/O Count Record

MN600DEV input/output count record provides information for each device data package. For FB-512 devices, the block number is converted to a cylinder number. MN600DEV is found in MONBLOKS copy.



SIZE

LENGTH OF EACH DATA RECORD IN BYTES (MN600DLN) 0E

Disp	Name	Len	Key	Description
0	MN600ADD	2		DEVICE ADDRESS
2	MN600TY	2		VM/SP HPO DEVICE TYPE/CODES
4	MN600SER	6		VOLUME SERIAL NUMBER
A	MN600CNT	4		DEVICE ACCUMULATED I/O COUNT

```
MN600MAX  EQU 123 MAX DEVICE COUNT MONITOR TO TAPE
MN600MXS  EQU 121 MAX DEVICE COUNT MONITOR TO SPOOL
```

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN600ADD	0000	MN600DLN	0000 0E	MN600MXS	000A 00	MN600TY	0002
MN600CNT	000A	MN600MAX	000A 00	MN600SER	0004		

MN602: MONITOR DASTAP UTILIZATION RECORD

- Header Record

HMN602HDR provides the number of samples for intervals of device packages. MN602HDR is found in MONBLOKS copy.

SIZE

HEADER LENGTH IN BYTES (MN602LN) 04

Disp	Name	Len	Key	Description
0000	MN602SAM	002		NUMBER OF SAMPLES FOR INTERVAL IPL PROCESSOR
0002	MN602SA2	002		NO. OF SAMPLES FOR INTERVAL NON-IPL PROCESSOR

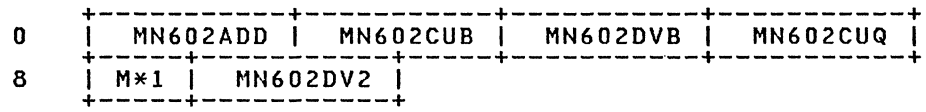
CROSS REFERENCE (Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN602HLN 0000 04 MN602SAM 0000 MN602SA2 0002

- Utilization Record

MN602DEV provides, via the CP MONITOR command, utilization data for DASD and tape devices. THere is one record for each device. MN602DEV is found in MONBLOKS copy.



SIZE

LNG OF DEV PORTION MP MODE IN BYTES (MN602MLN) 0B
LNG OF DEV PORTION UP/AP MODE IN BYTES (MN602DLN) 09

Disp	Name	Len	Key	Description
000	MN602ADD	002		DEVICE ADDRESS
002	MN602CUB	002		NUMBER OF TIMES CONTROL UNIT BUSY
004	MN602DVB	002		NUMBER OF TIMES DEVICE BUSY IPL PROCESSOR
006	MN602CUQ	002		I/O TASKS QUEUED ON CONTROL UNIT
008	MN602DVQ	001	M*1	I/O TASKS QUEUED ON DEVICE

```
009   MN602DV2 000      NUMBER OF TIMES DEVICE BUSY SECOND PROCESSOR
```

CROSS REFERENCE
(Name Disp Value)

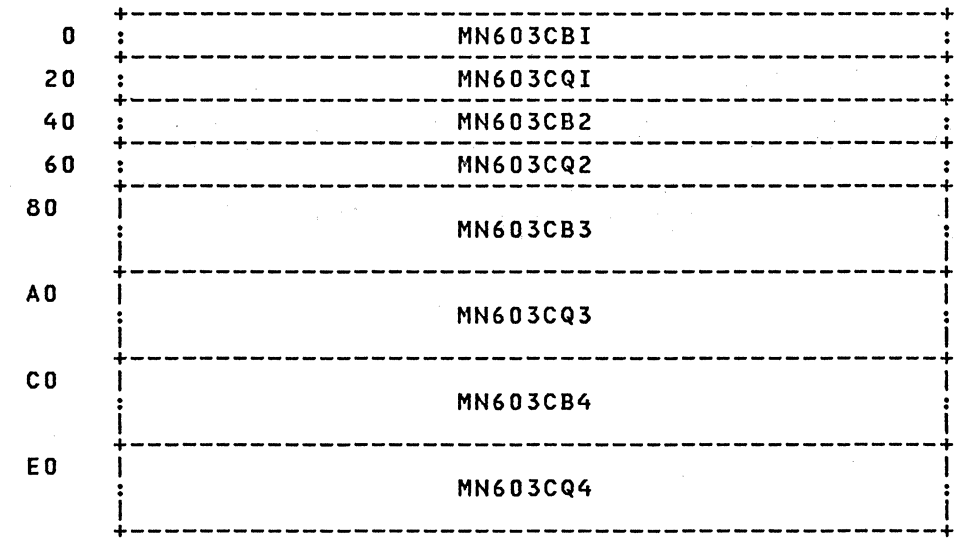
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MN602ADD 0000       MN602CUQ 0006       MN602DVB 0004       MN602DV2 0009
MN602CUB 0002       MN602DLN 0000 09    MN602DVQ 0008       MN602MLN 0000 0B
```

MN603: MONITOR DASTAP CLASS CHANNEL UTILIZATION RECORD

MN603 provides, via CP MONITOR command, utilization data for channels. MN603 is found in MONBLOKS copy.

UTILIZATION RECORD



SIZE

MN603 SIZE IN BYTES - MP MODE (MN603LNM) 100
MN603 SIZE IN BYTES - UP/AP MODE (MN603LNG) 60

Disp	Name	Len	Key	Description
				THE FOLLOWING 4 BUFFERS ARE FOR DATA FOR CHANNELS 0 THROUGH 15 ON EACH PROCESSOR
000	MN603CBI	032		CHANNEL (0-15) BUSY COUNTS IPL PROCESSOR
020	MN603CQI	032		I/O TASKS QUEUED ON CHANNEL (0-15) IPL PROCESSOR
040	MN603CB2	032		CHANNEL (0-15) BUSY COUNTS SECOND PROCESSOR
060	MN603CQ2	032		I/O TASKS QUEUED ON CHANNEL (0-15) SECOND PROCESSOR
				THE FOLLOWING 4 BUFFERS ARE FOR DATA FOR CHANNELS 16 THROUGH 31 ON EACH PROCESSOR
080	MN603CB3	032		CHANNEL BUSY COUNTS IPL PROCESSOR

```
0A0    MN603CQ3 032       I/O TASKS QUEUED ON CHANNEL IPL PROCESSOR
0C0    MN603CB4 032       CHANNEL BUSY COUNTS SECOND PROCESSOR
0E0    MN603CQ4 032       I/O TASKS QUEUED ON CHANNEL SECOND PROCESSOR
```

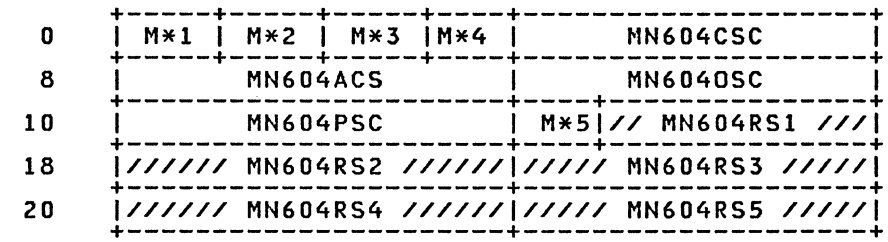
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MN603CBI 0000       MN603CB4 00C0       MN603CQ1 0020       MN603CQ3 00A0
MN603CB2 0040       MN603LNG 0000 40    MN603CQ2 0060       MN603CQ4 00E0
MN603CB3 0080       MN603LNM 0000 80
```

MN604: 3880 MODEL 11 AND 21 SUBSYSTEM STATUS RECORD

MN604 contains status data for the 3880-11 and 21 Storage Control. MN604 is found in MONBLOKS copy. It maps the field M3880SSS in MN3880DV.



SIZE

SIZE OF MN604 IN BYTES (MN604LN) 28

Disp	Name	Len	Key	Description
000	MN604DID	001	M*1	STORAGE DIRECTOR IDENTIFICATION
001	MN604DBA	001	M*2	DEVICE BASE ADDRESS
002	MN604OSS	001	M*3	OVERALL SUBSYSTEM STATUS
003	MN604SDS	001	M*4	SD STATUS
004	MN604CSC	004		CONFIGURED STORAGE CAPACITY IN BYTES
008	MN604ACS	004		CACHE SPACE AVAILABLE FOR ALLOCATION
00C	MN604OSC	004		SPACE OFFLINE DUE TO READ FAILURES
010	MN604PSC	004		PINNED: UNAVAILABLE DUE TO DASD EXCEPTION
014	MN604CDR	001	M*5	CHANNEL DATA RATES
015	MN604RS1	003		RESERVED FOR IBM USE
018	MN604RS2	004		RESERVED FOR IBM USE
01C	MN604RS3	004		RESERVED FOR IBM USE
020	MN604RS4	004		RESERVED FOR IBM USE
024	MN604RS5	004		RESERVED FOR IBM USE

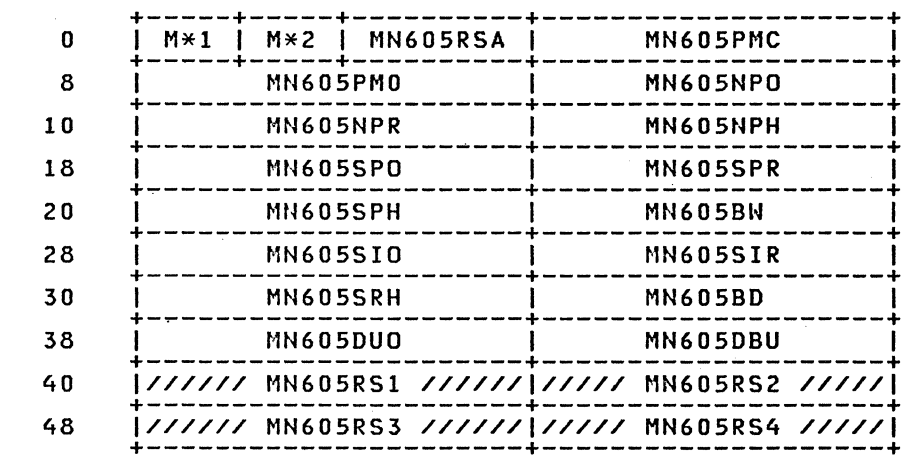
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN604ACS	0008	MN604DID	0000	MN604PSC	0010	MN604RS4	0020
MN604CDR	0014	MN604LN	0000 28	MN604RS1	0015	MN604RS5	0024
MN604CSC	0004	MN604OSC	000C	MN604RS2	0018	MN604SDS	0003
MN604DBA	0001	MN604OSS	0002	MN604RS3	001C		

MN605: 3880 MODEL 11 AND 21 SUBSYSTEM COUNTS RECORD

MN605 contains count-data for the 3880-11 and 21 Storage Control. MN605 is found in MONBLOKS copy.



SIZE

SIZE OF MN605 IN BYTES (MN605LN) 50

Disp	Name	Len	Key	Description
000	MN605DID	001	M*1	STORAGE DIRECTOR IDENTIFICATION
001	MN605DBA	001	M*2	DEVICE BASE ADDRESS
002	MN605RSA	002		RESERVED FOR IBM USE
004	MN605PMC	004		PAGING MODE DATA TRANSFER COMMAND CHAINS
008	MN605PM0	004		SAME AS MN605PMC BUT REQUIRES NO DASD ACCESS
00C	MN605NPO	004		NONSEQUENTIAL PAGING OPERATIONS
010	MN605NPR	004		NONSEQUENTIAL PAGING READS
014	MN605NPH	004		NONSEQUENTIAL PAGING READ HITS
018	MN605SPO	004		SEQUENTIAL PAGING READ OPERATIONS
01C	MN605SPR	004		SEQUENTIAL PAGING READS
020	MN605SPH	004		SEQUENTIAL PAGING READ HITS
024	MN605BW	004		BLOCK WRITES
028	MN605SIO	004		SWAP-IN OPERATIONS

```
02C   MN605SIR 004      SWAP-IN READS
030   MN605SRH 004      SWAP-IN READ HITS
034   MN605BD  004      BLOCK DISCARDS
038   MN605DUO 004      DASD UPDATE OPERATIONS
03C   MN605DBU 004      DASD BLOCK UPDATES
040   MN605RS1 004      RESERVED FOR IBM USE
044   MN605RS2 004      RESERVED FOR IBM USE
048   MN605RS3 004      RESERVED FOR IBM USE
04C   MN605RS4 004      RESERVED FOR IBM USE
```

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
MN605BD  0034      MN605LN  0000 50   MN605RSA 0002      MN605SIR 002C
MN605BW  0024      MN605NPH 0014      MN605RS1 0040      MN605SPH 0020
MN605DBA 0001      MN605NPO 000C      MN605RS2 0044      MN605SPO 0018
MN605DBU 003C      MN605NPR 0010      MN605RS3 0048      MN605SPR 001C
MN605DID 0000      MN605PMC 0004      MN605RS4 004C      MN605SRH 0030
MN605DUO 0038      MN605PMO 0008      MN605SIO 0028
```

MN606: VM MONITOR DASTAP CLASS RECORD

MN606 contains count data for the 3880 Storage Subsystem Models 13 and 23. MN606 is found in MONBLOKS copy.

0	M*1	M*2	//MN606RSA/	MN606RNR
8	MN606RNH			MN606WNR
10	MN606WNH			MN606RSR
18	MN606RSH			MN606WSR
20	MN606ICR			MN606RBR
28	MN606WBR			MN606DCO
30	MN606CCT			MN606DCH
38	MN606CDT			MN606DCT
40	MN606DCC			MN606BYP
48	MN606DCS			MN606RS1

SIZE

SIZE OF MN606 IN BYTES (MN606LEN) 50

Disp	Name	Len	Key	Description
000	MN606MDI	001	M*1	STORAGE DIRECTOR IDENTIFICATION
001	MN606DVI	001	M*2	DEVICE IDENTIFICATION
002	MN606RSA	002		RESERVED FOR IBM USE
004	MN606RNR	004		SEARCH/READ NORMAL I/O REQUESTS
008	MN606RNH	004		SEARCH/READ NORMAL I/O REQUEST HITS
00C	MN606WNR	004		WRITE NORMAL I/O REQUESTS
010	MN606WNH	004		WRITE NORMAL I/O REQUEST HITS
014	MN606RSR	004		SEARCH/READ SEQUENTIAL I/O REQUESTS
018	MN606RSH	004		SEARCH/READ SEQUENTIAL I/O REQUEST HITS
01C	MN606WSR	004		WRITE SEQUENTIAL I/O REQUESTS
020	MN606ICR	004		INHIBIT CACHE LOADING I/O REQUESTS
024	MN606RBR	004		SEARCH/READ I/O REQUESTS TO BOUND TRACKS
028	MN606WBR	004		WRITE I/O REQUESTS TO BOUND TRACKS
02C	MN606DCO	004		DASD-TO-CACHE TRANSFER OPERATIONS

030	MN606CCT	004	CACHE-TO-CHANNEL DATA TRANSFER
034	MN606DCH	004	DASD-TO-CHANNEL DATA TRANSFER
038	MN606CDT	004	CACHE-TO-DASD DATA TRANSFER
03C	MN606DCT	004	DASD-TO-CACHE DATA TRANSFER
040	MN606DCC	004	DASD-TO-CHANNEL/CACHE TRANSFER RATE
044	MN606BYP	004	BYPASS CACHE I/o REQUEST
048	MN606DCS	004	SEQUENTIAL DASD-TO-CACHE DATA TRANSFER
04C	MN606RSI	004	RESERVED FOR IBM USE

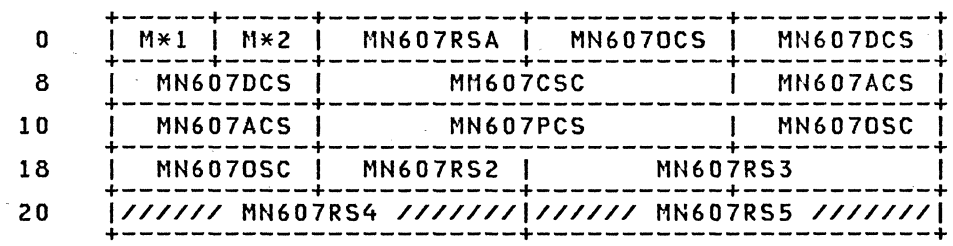
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN606BYP 0044	MN606DCS 0048	MN606RNR 0004	MN606SDI 0000
MN606CCT 0030	MN606DCT 0044	MN606RSA 0002	MN606WBR 0028
MN606CDT 0038	MN606DVI 0001	MN606RSH 0018	MN606WNH 0018
MN606DCC 0040	MN606ICR 0020	MN606RSR 001C	MN606WNR 000C
MN606DCH 0034	MN606RBR 0024	MN606RS1 004C	MN606WSR 0014
MN606DCO 002C	MN606RNH 0008		

MN607: SUBSYSTEM STATUS RECORD

MN607 contains status data for the 3880 Storage Subsystem Models 13 and 23. MN607 is found in MONBLOKS copy.



SIZE

MN607 SIZE IN BYTES (MN607LEN) 28

Disp	Name	Len	Key	Description
000	MN607SDI	001	M*1	STORAGE DIRECTOR IDENTIFICATION
001	MN607DVI	001	M*2	DEVICE IDTENTIFICATION
002	MN607RSA	002		RESERVED FOR IBM USE
004	MN607OCS	002		OVERALL CACHING STATUS
006	MN607DCS	004		DEVICE CACHING STATUS
00A	MN607CSC	004		CONFIGURED STORAGE CAPACITY
00E	MN607ACS	004		CACHE SPACE AVAILABLE FOR ALLOCATION
012	MN607PSC	004		PINNED (BOUND) CACHE SPACE
016	MN607OSC	004		SPACE OFFLINE DUE TO READ FAILURES
01A	MN607RS2	002		RESERVED FOR IBM USE
01C	MN607RS3	004		RESERVED FOR IBM USE
020	MN607RS4	004		RESERVED FOR IBM USE
024	MN607RS5	004		RESERVED FOR IBM USE

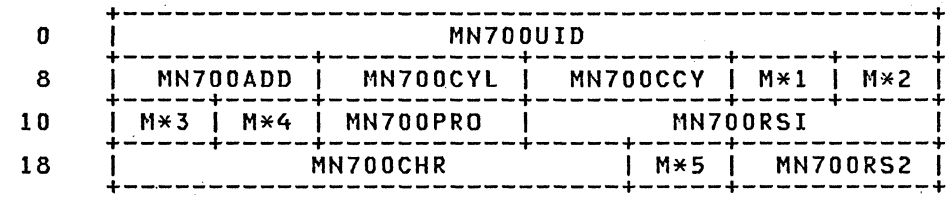
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN607ACS 000E	MN607OCS 0004	MN607RSA 0002	MN607RS4 0020
MN607CSC 000A	MN607OSC 0016	MN607RS2 001A	MN607RS5 0024
MN607DCS 0006	MN607PSC 0012	MN607RS3 001C	MN607SDI 0000
MN607DVI 0001			

MN700: MONITOR SEEKS CLASS RECORD

MN700 provides, via CP MONITOR, the I/O tasks and cylinder seek activity of a specified DASD. For FB-512 devices, the block number is converted to a cylinder number. MN700 is found in MONBLOKS copy.



SIZE

LENGTH OF CLASS 7 CODE 0 RECORD IN BYTES (MN700LEN) 20

Disp	Name	Len	Key	Description
000	MN700UID	008		USERID
008	MN700ADD	002		DEVICE ADDRESS
00A	MN700CYL	002		CYLINDER SOUGHT
00C	MN700CCY	002		CURRENT CYLINDER POSITION
00E	MN700QDV	001	M*1	I/O TASKS QUEUED ON THE DEVICE
00F	MN700QCU	001	M*2	I/O TASKS QUEUED ON THE CONTROL UNIT
010	MN700QCH	001	M*3	I/O TASKS QUEUED ON THE CHANNEL
011	MN700DIR	001	M*4	SEEK DIRECTION 00 = LOWER, 01 = HIGHER
012	MN700PRO	002		PROCESSOR ADDRESS
014	MN700RS1	004		RESERVED FOR IBM USE
018	MN700CHR	005		CCHHR OF SEEK RECORD
01D	MN700OPC	001	M*5	OPCODE OF CCW 16 BYTE PAST SEARCH
01E	MN700RS2	002		RESERVED FOR IBM USE

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN700ADD 0008	MN700DIR 0011	MN700QCH 0010	MN700RS1 0014
MN700CCY 000C	MN700LEN 0000 14	MN700QCU 000F	MN700RS2 001E
MN700CHR 0018	MN700OPC 001D	MN700QDV 000E	MN700UID 0000
MN700CYL 000A	MN700PRO 0012		

MN802: MONITOR SYSTEM PROFILE CLASS

- Header Record

MN802HDR provides the number of device block counters. MN802HDR is found in MONBLOKS copy.

SIZE

HEADER LENGTH IN BYTES (MN802DLN) 02

Disp	Name	Len	Key	Description
0000	MN802NUM	002		NUMBER OF DEVICE BLOCK COUNTERS WHICH FOLLOW
0002	MN802CNT	004		DEVICE I/O COUNT

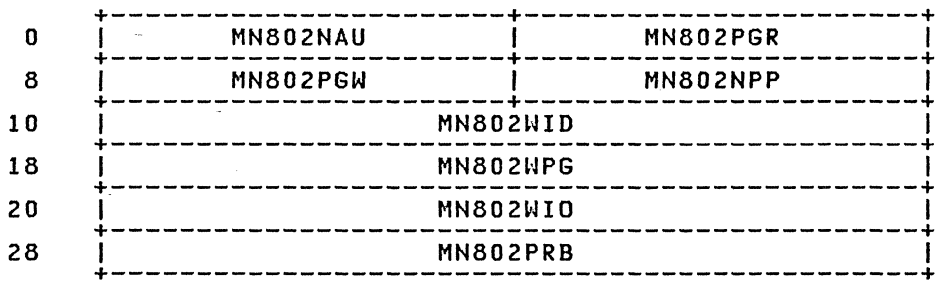
CROSS REFERENCE (Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN802CNT 0002 .. MN802DLN .... 02 MN802NUM 0000 ..

- System Profile Data

MN802CTR provides, via the CP MONITOR command, additional system profile data. The monitor data includes the I/O activity for each device, the number of logged on users, the number of page read/writes, and the total system I/O, page wait, and problem state times. MN802CTR is found in MONBLOKS copy.



SIZE

LENGTH OF EACH BLOCK IN BYTES (MN802CLN) 30

Disp	Name	Len	Key	Description
000	MN802NAU	004		NUMBER OF LOGGED ON USERS

004	MN802PGR	004	TOTAL SYSTEM PAGE READS
008	MN802PGW	004	TOTAL SYSTEM PAGE WRITES
00C	MN802NPP	004	NUMBER OF SYSTEM PAGEABLE PAGES
010	MN802WID	008	TOTAL SYSTEM IDLE WAIT TIME
018	MN802WPG	008	TOTAL SYSTEM PAGE WAIT TIME
020	MN802WIO	008	TOTAL SYSTEM I/O WAIT TIME
028	MN802PRB	008	TOTAL SYSTEM PROBLEM TIME

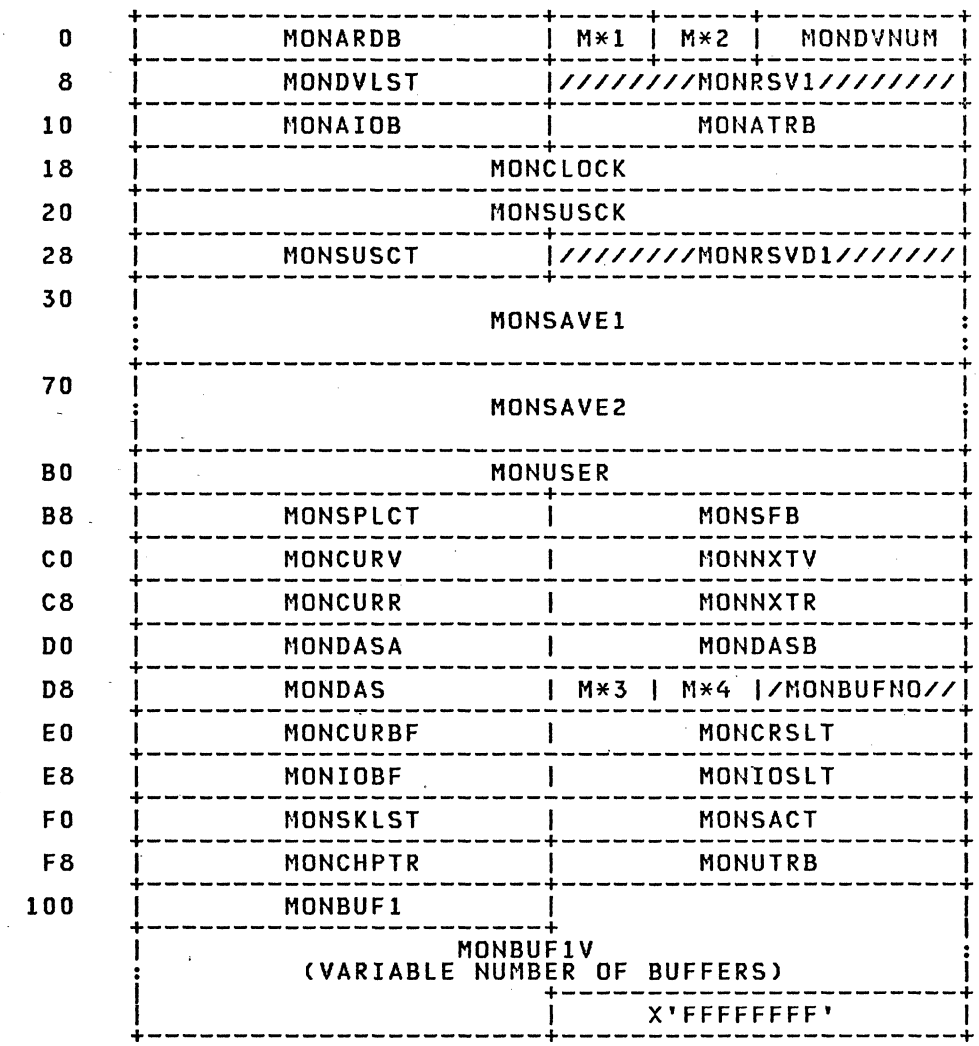
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MN802CLN 0000 30	MN802PGR 0004	MN802PRB 0028	MN802WIO 0020
MN802NAU 0000	MN802PGW 0008	MN802WID 0010	MN802WPG 0018
MN802NPP 000C			

MONCOM: MONITOR COMMUNICATIONS DATA

MONCOM provides the control link for CP's monitoring activity, the user, and the tape drive. The DMKPRGMC field in DMKPRG points to MONCOM. MONCOM is found in MONBLOKS copy.



SIZE

MONCOM SIZE IN BYTES (BEFORE MONBUF1V) (MONSIZE) 104

Disp	Name	Len	Key	Description
000	MONARDB	004		ADDRESS OF MONITOR TAPE REAL DEVICE BLK
004	MONFLAG1	001	M*1	MONITOR FLAGS

Values defined in MONFLAG1

80	MONSYSVM	FLAG USED BY USER CLASS ROUTINE
40	MONTPERR	WTM - STOP MON ON NEXT DMKMONIO
20	CFSTOP	MONITOR STOP COMMAND HAS BEEN ISSUED
10	TRUN	TAPE REWIND-UNLOAD CCW HAS BEEN SCHEDULE
08	ERROR	TAPE ERROR HAS OCCURRED, STOP MONITOR
04	MONTIINT	HANDLING TIMER INTERRUPT
02	MONLSTBK	HANDLING "LAST BLOCK"
01	MON1BUF	ONLY 1 BUFFER FOR MONITORING

005	MONFLAG2	001	M*2	WORK BYTE

Values defined in MONFLAG2

80	SUSPEND	MONITOR HAS BEEN SUSPENDED
40	MONMIAPG	DMKMIA IS BEING PAGED IN

006	MONDVNUM	002		NUMBER OF ENTRIES IN REAL DEVICE LIST
008	MONDVLST	004		ADDRESS OF THE FIRST BLOCK OF REAL DEVICE LIST
00C	MONRSV1	004		RESERVED FOR IBM USE
010	MONAIOB	004		ADDRESS OF MONITOR TAPE I/O BLOCK
014	MONATRB	004		ADDRESS OF MONITOR TIMER REQUEST BLOCK
018	MONCLOCK	008		TOD CLOCK STAMP FOR EACH RECORD
020	MONSUSCK	008		TOD CLOCK OF LAST SUSPENSION
028	MONSUSCT	004		SUSPENSION COUNT
02C	MONRSVD1	004		RESERVED FOR IBM USE
030	MONSAVE1	064		MONITOR INTERNAL SAVE AREA FOR CPU
070	MONSAVE2	064		MONITOR INTERNAL SAVE AREA FOR APU
0B0	MONUSER	008		USER STARTING/STOPPING THE MONITOR
0B8	MONSPLCT	004		COUNT OF RECORDS ON SPOOL FILE
0BC	MONSFB	004		ADDRESS OF SFBLOK FOR SPOOL FILE
0C0	MONCURV	004		VIRTUAL ADDRESS OF FIRST VIRTUAL BUFFER
0C4	MONNXTV	004		VIRTUAL ADDRESS OF SECND VIRTUAL BUFFER
0C8	MONCURR	004		REAL ADDRESS OF FIRST VIRTUAL BUFFER
0CC	MONNXTR	004		REAL ADDRESS OF SECOND VIRTUAL BUFFER
0D0	MONDASA	004		ADDRESS OF NEXT DASD BUFFER
0D4	MONDASB	004		ADDRESS OF PREVIOUS DASD BUFFER
0D8	MONDAS	004		ADDRESS OF DASD BUFFER FOR SPOOL FILE

0DC	MONEX	001	M*3	FLAG BYTE

Values defined in MONEX

80	CLCMD	INDICATES SPOOL FILE CLOSED BY COMMAND

0DD	MONFLAG3	001	M*4	FLAG BYTE

Values defined in MONFLAG3

08	CLSUS	INDICATES TO SUSPEND WHILE CLOSING
04	EXHAUST	INDICATES SYSTEM OUT OF DASD SLOTS
02	CL	INDICATES NEED TO SUSPEND
01	SPOOLED	INDICATES SPOOL MONITORING ACTIVE

0DE	MONBUFNO	002	RESERVED FOR IBM USE
0E0	MONCURBF	004	ADDRESS OF CURRENT MONITOR BUFFER
0E4	MONCRSLT	004	CORRESPONDING SLOT ADDRESS
0E8	MONIOBF	004	ADDRESS OF MONITOR BUFFER GOING TO TAPE
0EC	MONIOSLT	004	CORRESPONDING SLOT ADDRESS
0F0	MONSKLST	004	ADDRESS SEEKS DEVICE LIST
0F4	MONSACT	004	LIMIT COUNT FOR REAL TIME MONITOR
0F8	MONCHPTR	004	ADDRESS OF CHANNEL SAMPLING DATA
0FC	MONUTRB	004	ADDRESS OF I/O UTILIZATION TRB
100	MONBUF1	004	MONITOR BUFFER ADDRESSES

```
104   MONBUF1V 000      SUBSEQUENT BUFFER ADDRESS; 4 BYTE ENTRIES

   Bits defined in THIRD BYTE OF MONITOR TAPE BUFFER/NINTH BYTE
   OF SPOOL BUFFER

   03 MONBUFAC          COLLECTING, NOT IN USE FOR I/O
   01 MONBUFAV          NOT COLLECTING, NOT IN USE FOR I/O
   00 MONBUFIO          NOT COLLECTING, IN USE FOR I/O


   FLAGS IN 10TH BYTE OF MONITOR SPOOL BUFFER

   80 TRAP              LAST SPOOL FILE BUFFER AWAITING I/O
   40 UNFIN             BUFFER LENGTH TO BE COMPUTED


   Bits defined in THIRD BYTE OF CONTROL REG 8

   80 PERFCL            SAMPLE HARDWARE/SOFTWARE UTILIZATIONS
   40 RESPCL            TRACE RESPONSE CLASS
   20 SCHEDCL           TRACE SCHEDULER ACTIVITY CLASS
   10 SWAPCL            TRACE SWAP CLASS
   08 USERCL            SAMPLE USER RESOURCE USAGE CLASS
   04 PRIVCL            PRIVOPS CLASS
   02 DASDCL            SAMPLE DASDS UTILIZATIONS CLASS
   01 SEEKCL            TRACE DASD SEEK ACTIVITY

   Bits defined in FOURTH BYTE OF CONTROL REG 8

   80 SPROFCL           TRACE SYSTEM PROFILE CLASS

   40 XSWCL             TRACE SWAP PAGE NUMBERS CLASS


   Bits defined in DMKSYSAT AS DEFINED IN SYSMON MACRO

   80 AUTGO             AUTOMATIC MONITORING ENABLED
   40 AUTOSPL           STOP MONITOR WHEN SPOOL LIMIT REACHED
   20 MONSLMT           SAMPLING FOR REAL TIME MONITOR
```

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

AUTGO	0000	80	MONBUFNO	00DE	MONFLAG1	0004		MONSIZE	0000	104
AUTOSPL	0000	40	MONBUF1	0100	MONFLAG2	0005		MONSKLST	00F0	
CFSTOP	0004	20	MONBUF1V	0104	MONFLAG3	00DD		MONSLMT	0000	20
CL	00DD	02	MONCHPTR	00F8	MONIOBF	00E8		MONSPLCT	00B8	
CLCMD	00DC	80	MONCLOCK	0018	MONIOSLT	00EC		MONSUSCK	0020	
CLSUS	00DD	08	MONCRSLT	00E4	MONLSTBK	0004	02	MONSUSCT	0028	
DASDCL	0000	02	MONCURBF	00E0	MONMIAPG	0005	40	MONSYSVM	0004	80
ERROR	00DD	08	MONCURR	00C8	MONNXTR	00CC		MONTIINT	0004	04
EXHAUST	0104	04	MONCURV	00C0	MONNXTV	00C4		MONTPERR	0004	40
MONAIOB	0010		MONDAS	00D8	MONRSVD1	002C		MONUSER	00B0	
MONARDB	0000		MONDASA	00D0	MONRSV1	000C		MONUTRB	00FC	
MONATRB	0014		MONDASB	00D4	MONSACT	00F4		MON1BUF	0004	01
MONBUFAC	0000	03	MONDVLST	0008	MONSAVE1	0030		PERFCL	0000	80
MONBUFAV	0000	01	MONDVNUM	0006	MONSAVE2	0070		PRIVCL	0000	04
MONBUFIO	0000	00	MONEX	00DC	MONSFB	00BC		RESPCL	0000	40

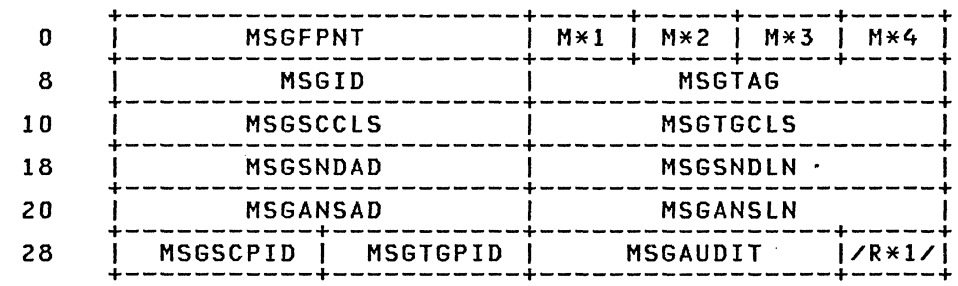
SCHEDCL	0000	20	SPROFCL	0000	80	TRAP	0000	80	UNFIN	0000	40
SEEKCL	0000	01	SUSPEND	0005	80	TRUN	0004	10	USERCL	0000	08
SPOOLED	0104	0DD	TIMECL	0000	10						

MSFBLOK: MONITORING AND SERVICE SUPPORT FACILITY DATA BLOCK

MSFBLOK is a storage area used by the MSSF.

MSGBLOK: IUCV MESSAGE BLOCK

MSGBLOK contains all the information regarding the actual Inter-User Communications Vehicle (IUCV) communication. The complete description and the location of the data and its length, and the message options are all contained in the MSGBLOK. The message exists within the system as long as the MSGBLOK is queued on an IUCV chain. The MSGBLOK is created by the SEND function and is destroyed upon completion of the message communication. MSGBLOK is found in IUCVBLOK copy.



SIZE

MSGBLOK SIZE IN DOUBLEWORDS (MSGSIZE) 6

Disp	Name	Len	Key	Description
0	MSGFPNT	4		ADDRESS OF NEXT MESSAGE BLOCK
4	MSGKEY	1	M*1	STORAGE PROTECT KEY FOR BUFFERS
5	MSGFLAGS	1	M*2	STATUS

Values defined in MSGFLAGS

B0	MSGMASK1	USER OPTION MASK
80	MSGPRMD	MESSAGE IN THE PARAMETER LIST
40	MSGPARTL	MESSAGE HAS BEEN PARTIALLY RECEIVED
20	MSGPRTY	PRIORITY MESSAGE OR REPLY
10	MSGNORPY	ONE WAY PROTOCOL
08	MSGPURGE	MESSAGE HAS BEEN PURGED
04	MSGNOFL	MESSAGE SENT TO QDROP OFF TARGET
02	MSGDESC	MESSAGE HAS BEEN DESCRIBED

Disp	Name	Len	Key	Description
6	MSGFLAG2	1	M*3	STATUS

Values defined in MSGFLAG2

80	MSGAPPC	INDICATES AN APPC/VM MSGBLOK
40	MSGBLIST	MESSAGE SENT USING BUFFER LIST
08	MSGALIST	MESSAGE SENT USING ANSWER LIST

Disp	Name	Len	Key	Description
7	MSGFLAG3	1	M*4	STATUS

Values defined in MSGFLAG3

```
|    04 MSGCTLS            MESSAGE SENT ON CONTROL PATH
|    02 MSGCTLT            MESSAGE SENT TO CONTROL PATH
|    01 MSGUSED            PERMANENT MSGBLOK IN USE

   8   MSGID      4        UNIQUE MESSAGE ID

   8   MSGERROR   2        ERROR/SEVER CODE

   A   MSGWHTRC   1        FUNCTION THAT COMPLETED THE SEND

   B   MSGSNDOP   1        FUNCTION THAT INITIATED THE SEND

   C   MSGTAG     4        MESSAGE TAG

  10   MSGSCCLS   4        SOURCE MESSAGE CLASS

  14   MSGTGCLS   4        TARGET MESSAGE CLASS

  18   MSGSNDAD   4        SEND BUFFER ADDRESS

  18   MSGPRM     8        PARAMETER LIST DATA

  1C   MSGSNDLN   4        SEND BUFFER LENGTH

  20   MSGANSAD   4        ANSWER BUFFER ADDRESS

  24   MSGANSLN   4        ANSWER BUFFER LENGTH

  28   MSGSCPID   2        SOURCE PATH ID

  2A   MSGTGPID   2        TARGET PATH ID

  2C   MSGAUDIT   3        AUDIT TRAIL FOR THIS MESSAGE

  2C   MSGAUDT1   1        AUDIT TRAIL BYTE 1

    Values defined in MSGAUDT1

    80 MSGARPLE            REPLY TOO LONG FOR BUFFER
    40 MSGASNPX            PROTECTION EXCEPTION ON SEND BUFFER
    20 MSGASNAX            ADDRESSING EXCEPTION ON SEND BUFFER
    10 MSGAANPX            PROTECTION EXCEPTION ON ANSWER BUFFER
    08 MSGAANAX            ADDRESSING EXCEPTION ON ANSWER BUFFER
    04 MSGARJCT            MESSAGE WAS REJECTED
    02 MSGAPRMD            REPLY SENT IN PARAMETER LIST

  2D   MSGAUDT2   1        AUDIT TRAIL BYTE 2

    Values defined in MSGAUDT2

    80 MSGARCPX            PROTECTION EXCEPTION ON RECEIVE BUFFER
    40 MSGARCAX            ADDRESSING EXCEPTION ON RECEIVE BUFFER
    20 MSGARPPX            PROTECTION EXCEPTION ON REPLY BUFFER
    10 MSGARPAX            ADDRESSING EXCEPTION ON REPLY BUFFER
    08 MSGASVRD            PATH WAS SEVERED
    04 MSGARLST            INVALID RECEIVE/REPLY LIST

  2E   MSGAUDT3   1        AUDIT TRAIL BYTE 3

    Values defined in MSGAUDT3

    80 MSGABLEN            BAD LENGTH IN SEND BUFFER LIST
    40 MSGAALEN            BAD LENGTH IN SEND ANSWER LIST
    20 MSGABTOT            INVALID TOTAL SEND BUFFER LENGTH
    10 MSGAATOT            INVALID TOTAL SEND ANSWER LENGTH
|   08 MSGATINV            INVALID LRECL IN PARTNER'S DATA
```

```
|    04 MSGAIINV          INVALID LRECL IN YOUR DATA
|    02 MSGATTRN          LOGICAL RECORD TRUNCATION BY PARTNER
|    01 MSGAITRN          LOGICAL RECORD TRUNCATION BY YOU

  2F    MSGRSV1           RESERVED FOR IBM USE
```

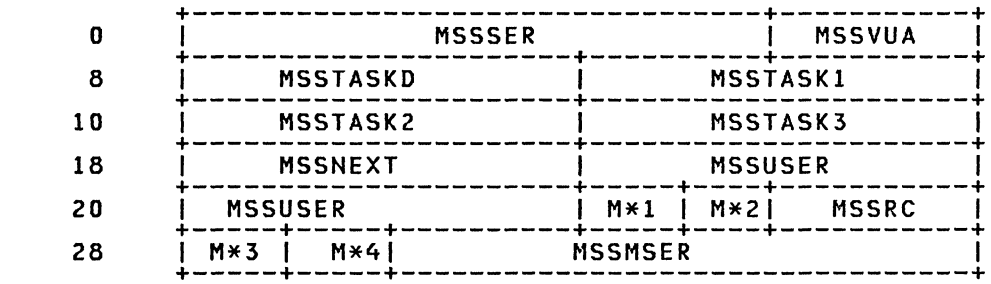
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

MSGAALEN	002E	40	MSGARJCT	002C	04	MSGCTLS	0007	04	MSGPRMD	0005	80
MSGAANAX	002C	08	MSGARLST	002D	04	MSGCTLT	0007	02	MSGPRTY	0005	20
MSGAANPX	002C	10	MSGARPAX	002D	10	MSGDESC	0005	02	MSGPURGE	0005	08
MSGAATOT	002E	10	MSGARPLE	002C	80	MSGERROR	0008	..	MSGRSV1	002F	..
MSGABLEN	002E	80	MSGARPPX	002D	20	MSGFLAGS	0005	..	MSGSCCLS	0010	..
MSGABTOT	002E	20	MSGASNAX	002C	20	MSGFLAG2	0006	..	MSGSCPID	0028	..
MSGAIINV	002E	04	MSGASNPX	002C	40	MSGFLAG3	0007	..	MSGSIZE	....	6
MSGAITRN	002E	01	MSGASVRD	002D	08	MSGFPNT	0000	..	MSGSNDAD	0018	..
MSGALIST	0006	08	MSGATINV	002E	08	MSGID	0008	..	MSGSNDLN	001C	..
MSGANSAD	0020	..	MSGATTRN	002E	02	MSGKEY	0004	..	MSGSNDOP	000B	..
MSGANSLN	0024	..	MSGAUDIT	002C	..	MSGMASK1	0005	B0	MSGTAG	000C	..
MSGAPPC	0006	80	MSGAUDT1	002C	..	MSGNOFL	0005	04	MSGTGCLS	0014	..
MSGAPRMD	002C	02	MSGAUDT2	002D	..	MSGNORPY	0005	10	MSGTGPID	002A	..
MSGARCAX	002D	40	MSGAUDT3	002E	..	MSGPARTL	0005	40	MSGUSED	0007	01
MSGARCPX	002D	80	MSGBLIST	0006	40	MSGPRM	0018	..	MSGWHTRC	000A	..

MSSCOM: MASS STORAGE SYSTEM COMMUNICATIONS CONTROL BLOCK

MSSCOM contains information necessary to request a MSS volume mount, request a MSS volume demount, or complete processing when a pack change interrupt is received on a MSS device. The MSSCOM blocks are chained from location DMKSSSMQ in module DMKMSS. MSSCOM is found in MSSCOM copy.



SIZE

MSSCOM SIZE IN DOUBLEWORDS (MSSSIZE) 6

Disp	Name	Len	Key	Description
0	MSSSER	6		3330V VOLUME SERIAL NUMBER
6	MSSVUA	2		VIRTUAL UNIT ADDRESS FOR THE VOLUME
8	MSSTASKD	4		CPEXBLOK ADDRESS FOR DUPL MOUNT REQUESTS
C	MSSTASK1	4		CPEXBLOK ADDRESS FOR TASK WAITING FOR A MOUNT
10	MSSTASK2	4		CPEXBLOK POINTER TO TASK WAITING FOR MSC COMM
14	MSSTASK3	4		CPEXBLOK POINTER TO TASK WAITING FOR 3330V I
18	MSSNEXT	4		POINTER TO NEXT COMMUNICATION AREA
1C	MSSUSER	8		NAME OF VIRTUAL MACHINE INITIATING REQUEUE
24	MSSFLAG1	1	M*1	FLAGS DESCRIBING THE SPECIFIC REQUEST

Values defined in MSSFLAG1

80	MOUNT	MOUNT THE 3330V 'SERIAL' ON DEVICE 'VUA'
20	DEMOUNT	DEMOUNT THE 3330V 'SERIAL' ON DEVICE 'VUA'
10	RELINQSH	MOUNTED BY CP
08	INUSE	A REQUEST IS BEING PROCESSED BY OS/VS
04	MSSERR	ERROR IN THIS REQUEST; NO MORE MSS ACTION
01	MSSSAVE	SAVE AREA IS NOT TO BE RETURNED

```
25   MSSFLAG2   1 M*2  FLAG FOR CURRENT STATUS OF REQUEST

  Values defined in MSSFLAG2

  80 RQENT              WAITING FOR A MOUNT TO OCCUR
  40 MQENT              WAITING FOR RESPONSE FROM DMKMSS
  20 INPROC             PROCESSING MOUNT/DEMOUNT REQUEST
  10 MSGPROC            MSS MOUNT PROCEEDING
  08 MSSRETRY           THIS MOUNT REQUEST CAN BE RETRIED
  04 SHRDVUA            VIRTUAL UNIT ADDRESS IS SHARED
  02 MSSIGNOR           USER HAS LOGGED OFF; POINTERS ARE INVALID
  01 VUAMNTD            VOLUME ALREADY MOUNTED BY ANOTHER PROCESSOR

26   MSSRC      2

28   MSSSDG     1 M*3  STAGING DRIVE GROUP NUMBER

29   MSSFLAG3   1 M*4  FLAG BYTE THREE

  Values defined in MSSFLAG3

  80 MSSRC10            PERMIT RC10 AFTER FIRST DEMOUNT

2A   MSSMSER    6      MOUNT VOLID ON RETURN CODE 10
```

CROSS REFERENCE
(Name Disp Value)

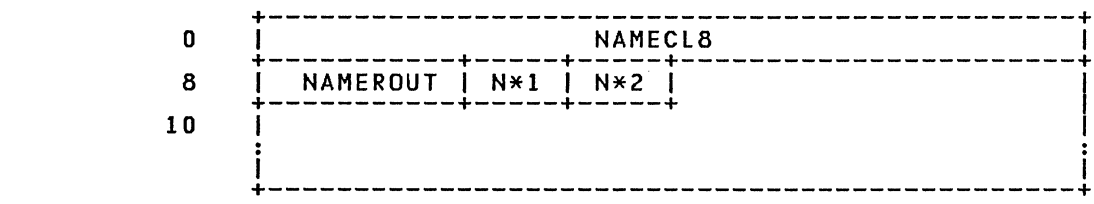
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
DEMOUNT   0024 20    MSSFLAG2  0025       MSSSAVE   0024 01    MSSTASK3  0014
INPROC    0025 20    MSSFLAG3  0029       MSSSDG    0028       MSSUSER   001C
INUSE     0024 08    MSSIGNOR  0025 02    MSSSER    0000       MSSVUA    0006
MOUNT     0024 80    MSSMSER   002A       MSSSIZE   0000 06    RELINQSH  0024 10
MQENT     0025 40    MSSNEXT   0018       MSSTASKD  0008       RQENT     0025 80
MSGPROC   0025 10    MSSRC     0026       MSSTASK1  000C       SHRDVUA   0025 04
MSSERR    0024 04    MSSRC10   0029 80    MSSTASK2  0010       VUAMNTD   0025 01
MSSFLAG1  0024       MSSRETRY  0025 08
```

NAMENTRY: NAME TABLE ENTRY

NAMENTRY contains valid command line options for the CPTRAP command.

NAMENTRY is found in CPTRAP copy.



Disp	Name	Len	Key	Description
0	NAME	0		OPERAND NAME
8	NAMEROUT	0		ROUTINE DISPLACEMENT FROM DMKTRP
A	NAMEMIN	0	N*1	MINIMUM OPERAND NAME LENGTH
B	NAMEENV	0	N*2	OPERAND ENVIRONMENT (DURING

Values defined in NAMEENV

80	NAMPROC	OPERAND ACCEPTABLE WHEN TRAP IS ACTIVE
40	NAMNOPRO	OPERAND OK WHEN TRAP NOT ACTIVE
20	NAM2NUM	SECOND OPERAND OF NUMBER IS ACCEPTABLE
10	NAM2WORD	SECOND OPERAND OF WORD IS ACCEPTABLE
0C	NAMESIZE	BIT SUMMARY

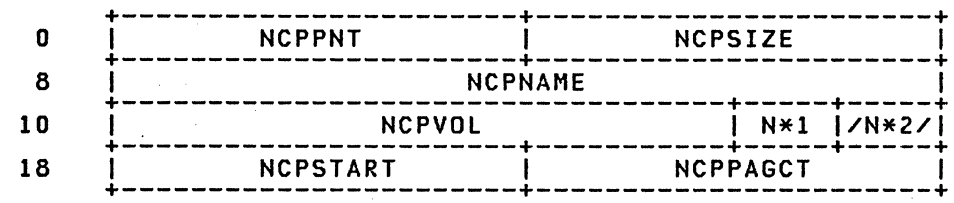
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

NAME	0000	..	NAMEROUT	0008	..	NAMNOPRO	000B	40	NAM2NUM	000B	2(
NAMEENV	000B	..	NAMESIZE	000B	0C	NAMPROC	000B	80	NAM2WORD	000B	1(
NAMEMIN	000A	..									

NCPTBL: 370X NAMED CONTROL PROGRAM TABLE

NCPTBL entries provide description information on 370X control program images saved on CP-owned volumes. The DMKSNTRN field in DMKSNT is the beginning address of NCPTBL. NCPTBL is found in NCPTBL copy.



SIZE

NCPTBL SIZE IN DOUBLEWORDS (NCPLEN) 4

Disp	Name	Len	Key	Description
0	NCPPNT	4		CHAIN POINTER TO NEXT ENTRY
4	NCPSIZE	4		370X STORAGE SIZE REQUIRED FOR LOAD
8	NCPNAME	8		CONTROL PROGRAM REFERENCE NAME
10	NCPVOL	6		VOLID OF DASD CONTAINING SAVED IMAGE
16	NCPFLAG	1	N*1	CPTYPE FLAG BYTE
	Values defined in NCPFLAG			
	03 NCPTPEP			PARTITIONED EMULATOR PROGRAM
	02 NCPTCEP			270X EMULATION CONTROL PROGRAM
	01 NCPTNCP			NETWORK CONTROL PROGRAM
17	NCPRSV1	1	N*2	RESERVED FOR IBM USE
18	NCPSTART	4		CCPD OR PPPD OF FIRST PAGE ON NCPVOL
1C	NCPPAGCT	4		TOTAL NUMBER OF PAGES SAVED

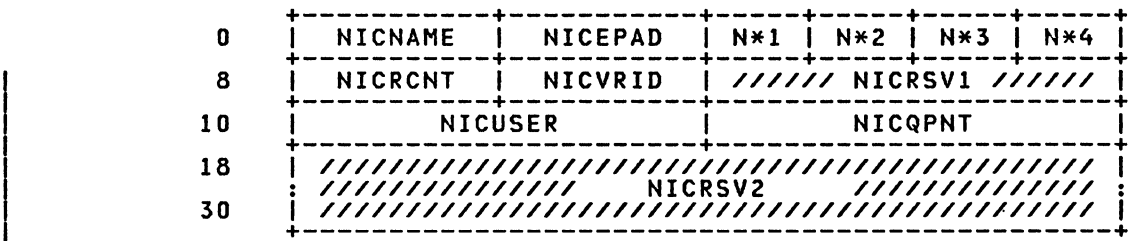
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

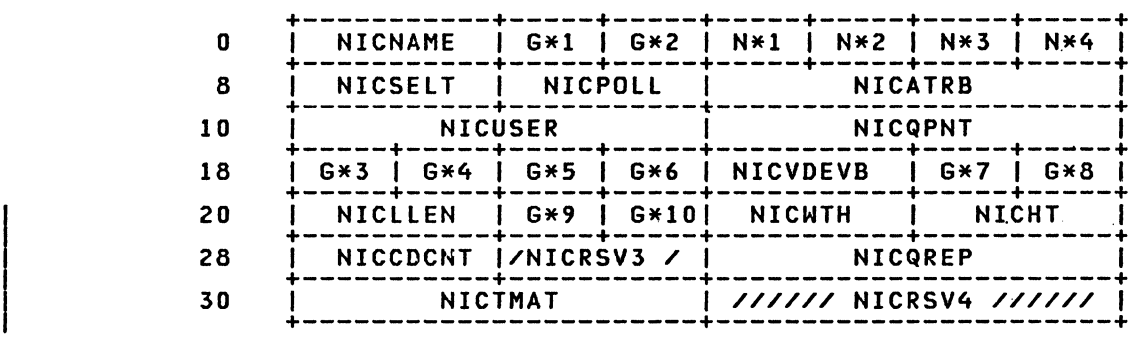
NCPFLAG	0016	NCPPAGCT	001C	NCPSIZE	0004	NCPTNCP	0016 01
NCPLEN	0000 04	NCPPNT	0000	NCPSTART	0018	NCPTPEP	0016 03
NCPNAME	0008	NCPRSV1	0017	NCPTCEP	0016 02	NCPVOL	0010

NICBLOK: NETWORK INTERFACE CONTROL BLOCK

NICBLOK contains control information related to 3704/3705 resources, teleprocessing lines, and display screen status information. The RDEVNICL field of RDEVBLOK points to NICBLOK. NICBLOK is found in NETWORK copy.



NICBLOK DEFINITION FOR REMOTE GRAPHICS



SIZE

NICBLOK SIZE IN DOUBLEWORDS (NICSIZE) 7

Disp	Name	Len	Key	Description
0	NICNAME	2		37XX NCP RESOURCE NAME
2	NICEPAD	2		SUBCHANNEL ADDRESS WHEN IN EP MODE
2	NICCORD	1	G*1	CURRENT LINE COORDINATE
3	NICTMCD	1	G*2	TERMINAL STATE

Values defined in NICTMCD

80	NICUSEWA	USE ERASE/WRITE ALTERNATE OR ERASE/WRITE
40	NICSIO	USER ISSUE DIAGNOSE TO INPUT AREA
20	NICAPL	APL ON FOR 3270 REMOTE
10	NICTEXT	3270 TEXT CHARACTER SET ON

4	NICSTAT	1	N*1	RESOURCE STATUS FLAGS

Values defined in NICSTAT

```
   80 NICERLK              DEVICE ERROR LOCK IS SET
   80 NICTRQ.              GRAF - TIMER REQUEST PENDING
   40 NICNTRL              CONTROL OPERATION IS ACTIVE
   20 NICDISA              RESOURCE INACTIVE (OFFLINE)
   10 NICSWEP              RESOURCE IS SWITCHABLE TO EP-MODE
   10 NICHOLD              GRAF - SCREEN FULL, IN HOLD STATUS
   08 NICEPMD              RESOURCE NOW IN EMULATOR MODE
   08 NICMORE              GRAF - SCREEN FULL, IN MORE STATUS
   04 NICRUNN              GRAF - SCREEN IN RUNNING STATUS
   02 NICLTRC              NCP LINE TRACE IS ACTIVE
   02 NICREAD              GRAF - READ PENDING FOR SCREEN INPUT
   01 NICDED               RESOURCE IS DEDICATED
   01 NICCPNA              GRAF - LAST INPUT NOT ACCEPTED

5    NICFLAG     1 N*2    INTERFACE CONTROL FLAGS

 Values defined in NICFLAG

   80 NICSESN              SESSION IS ACTIVE FOR THIS DEVICE
   80 NICFMT               GRAF - SCREEN FORMATTED VM/SP ONLINE
   40 NICATTN              ATTENTION HANDLING IN PROGRESS
   40 NICDIAG              GRAF - SCREEN WRITTEN WITH DIAGNOSE
   20 NICPSUP              RESOURCE HAS PRINT SUPPRESS FEATURE
   10 NICATOF              SUPPRESS ATTENTION SIGNAL CHARACTER
   10 NICALRM              GRAF - SCREEN HAS ALARM MESSAGE
   08 NICENAB              RESOURCE IS ACTIVE AND ENABLED
   04 NICCARD              GRAF - DATA FROM CARD READER
   02 NICDISB              RESOURCE TO BE DISABLED RIGHT AWAY
   01 NICMTA               MULTIPLE TERMINAL ACCESS RESOURCE

6    NICADFF     1 N*3    ADVANCED FUNCTION FLAGS

 Values defined in NICADFF

   40 NIC14B               14 BIT ADDRESSING
   20 NIC12B               12 BIT ADDRESSING

7    NICTYPE     1 N*4    RESOURCE TYPE/FEATURES

 Values defined in NICTYPE

   00 NICCTLR              RESOURCE IS THE 37XX ITSELF
   80 NICLINE              RESOURCE IS A TP LINE
   40 NICTERM              RESOURCE IS A TERMINAL DEVICE
   20 NICLGRP              RESOURCE IS A LOGICAL LINE GROUP
   18 NIC3276              GRAF - 3276 DISPLAY STATION/CONTROL UNIT
   10 NICTELE              TERM - TELEGRAPH LINE ADAPTER
   10 NIC3274              GRAF - 3274 CONTROL UNIT
   10 NICOPRDR             GRAF - CARD READER FEATURE
   08 NICSDLC              LINE - SYNCHRONOUS DATA LINK CONTROL
   08 NICCIBM              TERM - SELECTRIC-BASED TERMINAL
   08 NIC3271              GRAF - 3271 CONTROL UNIT
   04 NICLBSC              LINE - BINARY SYNCHRONOUS LINE CONTROL
   04 NICRCPU              TERM - BI-SYNCH REMOTE COMPUTER
   04 NIC3275              GRAF - 3275 DISPLAY STATION/CONTROL UNIT
   02 NICSWCH              LINE - SWITCHED LINE INTERFACE
   02 NICRSPL              TERM - BI-SYNCH REMOTE SPOOL DEVICE
   01 NICMLTP              LINE - MULTIPLE-DROP LEASED LINE
   01 NICGRAF              TERM - BI-SYNCH REMOTE GRAPHICS

8    NICRCNT     2        RETRY COUNT FOR BTU ERRORS

8    NICSELT     2        REMOTE STATION SELECTION CHARACTERS

A    NICVRID     2        VIRTUAL RESOURCE ID WHEN DEDICATED
```

A	NICPOLL	2	REMOTE STATION POLLING CHARACTERS
C	NICATRB	4	TIMER REQUEST BLOCK ADDRESS
C	NICATRB	4	RESERVED FOR IBM USE
10	NICUSER	4	VMBLOK ADDRESS OF ASSOCIATED USER
14	NICQPNT	4	ADDRESS OF INPUT BTU CHAIN
18	NICRSV2	24	RESERVED FOR IBM USE
18	NICGRTY	1 G*3	DISPLAY SCREEN SIZE INDEX VALUE
19	NICDTYPE	1 G*4	DISPLAY STATION TYPE

Values defined in NICDTYPE

80	NICD3284	3284 PRINTER
80	NICD3286	3286 PRINTER
80	NICD3287	3287 PRINTER
80	NICD3288	3288 PRINTER
80	NICD3289	3289 PRINTER
04	NICD3277	3277 DISPLAY STATION
03	NICD3276	3276 DISPLAY STATION
02	NICD3275	3275 DISPLAY STATION
01	NICD3278	3278 DISPLAY STATION
01	NICD3279	3279 DISPLAY STATION
01	NICD3290	3290 DISPLAY STATION

1A	NICMDL	1 G*5	DISPLAY STATION MODEL
1B	NICADVF	1 G*6	3278 ADVANCED FEATURE FLAGS

Values defined in NICADVF

80	NICECOL	DEVICE HAS EXTENDED COLOR
40	NICEHLT	DEVICE HAS EXTENDED HIGHLIGHTING
20	NICPSS	DEVICE HAS PROGRAMMABLE SYMBOL SETS
10	NICQRY	ENABLE GENERAL QUERY IN PROGRESS
08	NICQDONE	QUERY WAS ISSUED AND COMPLETED
04	NICAINH	READ NODISPLAY HAS BEEN ISSUED
02	NICWSF	WSF HAS BEEN ISSUED
01	NIC14AD	14 BIT ADDRESSING AVAILABLE

1C	NICVDEVB	2	VIRTUAL CUU OF THE DEVICE
1E	NICRFLG	1 G*7	REMOTE DEVICE FLAGS

Values defined in NICRFLG

80	NICRATTN	REMOTE DEVICE REQUIRES ATTN
40	NICRATTD	REMOTE DEVICE ATTN HAS BEEN DONE
20	NICROPER	SYSTEM OPERATOR ISSUED COMMAND
10	NICRDED	REMOTE DEVICE IS DEDICATED
08	NICDXSC	DIALED 327X SIMULATING A CONSOLE
04	NICDMSG	DROPPED MESSAGE BEING WRITTEN
01	NICAWSF	DEVICE SUPPORTS WSF

1F	NICPT	1 G*8	NUMBER OF PARTITIONS IN SCREEN
20	NICLLEN	2	TERMINAL LINE LENGTH
22	NICEWO	1 G*9	ERASE WRITE OPTION

23	NICRFLG1	1	G*10	REMOTE DEVICE FLAGS

Values defined in NICRFLG1

80	NICLGDRP	FORCE HAS BEEN DONE
40	NICLOGDT	DATA ENTERED FROM LOGO SCREEN

24	NICWTH	2	SCREEN WIDTH IN CELLS
26	NICHT	2	SCREEN HEIGHT IN CELLS
28	NICCDCNT	2	DATA LENGTH OF DATA CHAINED CCWS
2A	NICRSV3	4	RESERVED FOR IBM USE
2C	NICQREP	4	WSF QUERY REPLY DATA BUFFER ADDRESS
30	NICTMAT	4	TOD CLOCK VALUE WHEN ATTACHED
34	NICRSV4	4	RESERVED FOR IBM USE

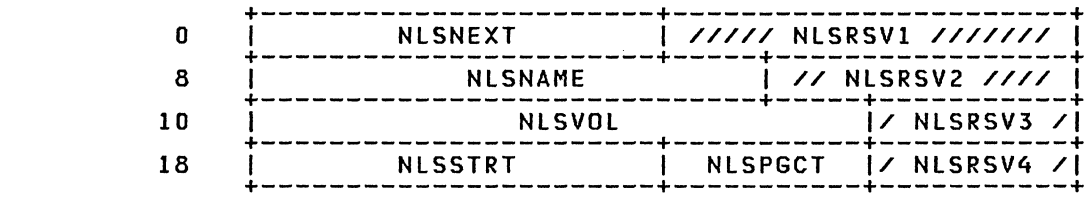
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

ABORT	....	1	NICD3284	0019	80	NICMTA	0005	01	NICSESN	0005	80
IPLREQ	....	2	NICD3286	0019	80	NICNAME	0000	..	NICSIO	0003	40
NICADFF	0006	..	NICD3287	0019	80	NICNTRL	0004	40	NICSIZE	....	7
NICADVF	001B	..	NICD3288	0019	80	NICOPRDR	0007	10	NICSTAT	0004	..
NICAINH	001B	04	NICD3289	0019	80	NICPOLL	000A	..	NICSWCH	0007	02
NICALRM	0005	10	NICD3290	0019	01	NICPSS	001B	20	NICSWEP	0004	10
NICAPL	0003	20	NICECOL	001B	80	NICPSUP	0005	20	NICTELE	0007	10
NICATOF	0005	10	NICEHLT	001B	40	NICPT	001F	..	NICTERM	0007	40
NICATRB	000C	..	NICENAB	0005	08	NICQDONE	001B	08	NICTEXT	0003	10
NICATTN	0005	40	NICEPAD	0002	..	NICQPNT	0014	..	NICTMAT	0030	..
NICAWSF	001E	01	NICEPND	0004	08	NICQREP	002C	..	NICTMCD	0003	..
NICCARD	0005	04	NICERLK	0004	80	NICQRY	001B	10	NICTRQ	0004	80
NICCDCNT	0028	..	NICEWO	0022	..	NICRATTD	001E	40	NICTYPE	0007	..
NICCIBM	0007	08	NICFLAG	0005	..	NICRATTN	001E	80	NICUSER	0010	..
NICCORD	0002	..	NICFMT	0005	80	NICRCNT	0008	..	NICUSEWA	0003	80
NICCPNA	0004	01	NICGRAF	0007	01	NICRCPU	0007	04	NICVDEVB	001C	..
NICCTLR	0007	00	NICGRTY	0018	..	NICRDED	001E	10	NICVRID	000A	..
NICDED	0004	01	NICHOLD	0004	10	NICREAD	0004	02	NICWSF	001B	02
NICDIAG	0005	40	NICHT	0026	..	NICRFLG	001E	..	NICWTH	0024	..
NICDISA	0004	20	NICLBSC	0007	04	NICRFLG1	0023	..	NIC12B	0006	20
NICDISB	0005	02	NICLGDRP	0023	80	NICROPER	001E	20	NIC14AD	001B	01
NICDMSG	001E	04	NICLGRP	0007	20	NICRSPL	0007	02	NIC14B	0006	40
NICDTYPE	0019	..	NICLINE	0007	80	NICRSV1	000C	..	NIC3271	0007	08
NICDXSC	001E	08	NICLLEN	0020	..	NICRSV2	0018	..	NIC3274	0007	10
NICD3275	0019	02	NICLOGDT	0023	40	NICRSV3	002A	..	NIC3275	0007	04
NICD3276	0019	03	NICLTRC	0004	02	NICRSV4	0034	..	NIC3276	0007	18
NICD3277	0019	04	NICMDL	001A	..	NICRUNN	0004	04	RDBUFLN	....	60
NICD3278	0019	01	NICMLTP	0007	01	NICSDLC	0007	08	RDBUFNO	....	6
NICD3279	0019	01	NICMORE	0004	08	NICSELT	0008	..	WRITBRK	....	9

NLSTBL: NATIONAL LANGUAGE TABLT ENTRY

NLSTBL entries provide descriptive information on the CP message repositories saved on the CP-owned volumes. NLSTBL is built during system generation in DMKSNT using the NAMELANG macro. NLSTBL is found in NLSTBL copy.



Disp	Name	Len	Key	Description
0	NLSNEXT	4		DISPLACEMENT TO NEXT ENTRY
4	NLSRSV1	4		RESERVED FOR IBM USE
8	NLSNAME	5		REPOSITORY NAME
D	NLSRSV2	3		RESERVED FOR IBM USE
10	NLSVOL	6		VOLID OF DASD WITH REPOSITORY
16	NLSRSV3	2		RESERVED FOR IBM USE
18	NLSSTRT	4		CCPD/PPPD OF FIRST PAGE
1C	NLSPGCT	2		TOTAL NUMBER OF PAGES SAVED
1E	NLSRSV4	2		RESERVED FOR IBM USE

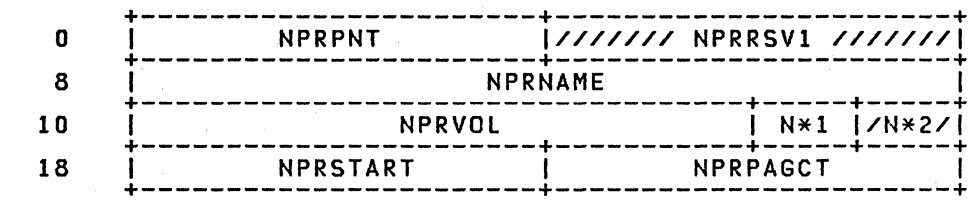
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

NLSNAME 0008 .. NLSPGCT 001C .. NLSSTRT 0018 .. NLSVOL 0010 ..
NLSNEXT 0000 ..

NPRTBL: 3800 NAMED IMAGE LIBRARY TABLE

NPRTBL lists by name all pages saved and indicates the DASD volume that contains the saved image. The DMKSNTQN field in DMKSNT is the beginning address of NPRTBL. NPRTBL is found in NPRTBL copy.



SIZE

NPRTBL SIZE IN DOUBLEWORDS (NPRSZE) 4

Disp	Name	Len	Key	Description
0	NPRPNT	4		CHAIN POINTER TO NEXT ENTRY
4	NPRRSV1	4		RESERVED FOR IBM USE
8	NPRNAME	8		IMAGE LIBRARY REFERENCE NAME
10	NPRVOL	6		VOLID OF DASD CONTAINING SAVED IMAGE
16	NPRCNT	1	N*1	NUMBER OF 3800s ACTIVE ON THIS IMAGE
17	NPRRSV2	1	N*2	RESERVED FOR IBM USE
18	NPRSTART	4		CCPD OR PPPD OF FIRST PAGE ON NPRVOL
1C	NPRPAGCT	4		TOTAL NUMBER OF PAGES SAVED

CROSS REFERENCE

(Name Disp Value)

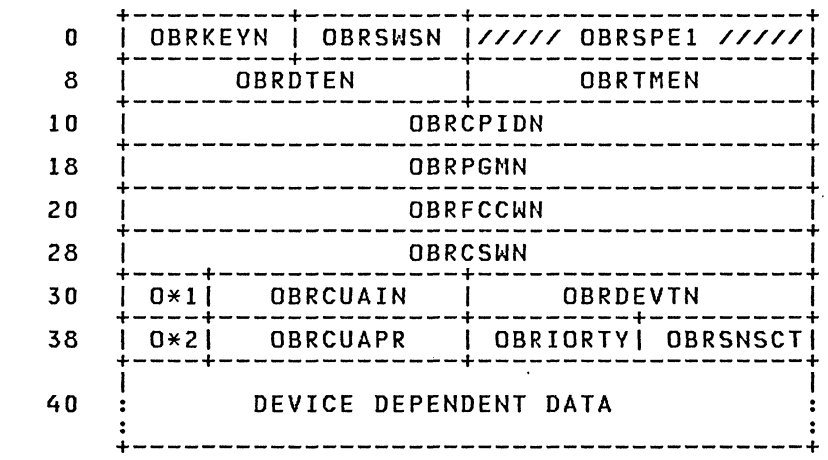
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
NPRCNT   0016      NPRPNT   0000      NPRRSV2  0017      NPRSZE   0000 04
NPRNAME  0008      NPRRSV1  0004      NPRSTART 0018      NPRVOL   0010
NPRPAGCT 001C
```

OBRRECN: UNIT CHECK ERROR RECORD (LONG OUTBOARD RECORD)

OBRRECN provides error, sense, and other statistical data needed for error recording on a specified channel-attached I/O device. OBRRECN is found in OBRRECN copy.

LONG OUTBOARD RECORD



SIZE

MAX SIZE OF RECORD IN BYTES (OBR3SIZE) 70
MAX SIZE OF 2314/2319 RECORD IN BYTES (OBR2SIZE) 68
SIZE OF LONG RECORD BASE IN BYTES (OBRLSIZE) 40
OBR HEADER SIZE IN BYTES (OBRHSIZE) 18
LONG OUTBOARD RECORD SIZE IN DOUBLEWORDS 07

Disp	Name	Len	Key	Description
0	OBRKEYN	2		RECORD TYPE
2	OBRSWSN	2		SWITCHES

Values defined in OBRSWSN

80	OBRMORE	MORE RECORDS FOLLOW
80	OBREOD	SDR COUNTERS DUMPED AT EOD
40	OBRTOD	TIME OF DAY CLOCK
40	OBRTEMP	TEMPORARY ERROR
20	OBRSHOBR	SHORT OBR
04	OBRDEMNT	VOLUME DEMOUNT

4	OBRSPE1	4		RESERVED FOR IBM USE
8	OBRDTEN	4		DATE
C	OBRTMEN	4		TIME

10	OBRCPIDN	8		CPU ID AND SERIAL NUMBER
18	OBRPGMN	8		JOB ID
20	OBRFCCWN	8		FAILING CCW
28	OBRCSWN	8		FAILING CSW
30	OBRDDCNT	1	0*1	NO. OF DBLWDS FOR DEV DEPENDENT
31	OBRCUAIN	3		ADDRESS OF FAILING DEVICE
34	OBRDEVTN	4		DEVICE TYPE
38	OBRSDRCT	1	0*2	NUMBER OF SDR WORK AREA BYTES
39	OBRCUAPR	3		PRIMARY UNIT ADDRESS
3C	OBRIORTY	2		NUMBER OF RETRIES
3E	OBRSNSCT	2		NUMBER OF SENSE BYTES
40	OBRVOLN	8		VOLUME ID
40	OBRURST	10		SDR WORK AREA
40	OBR3505S	1		3505/3525 SENSE DATA
40	OBRCORL	1		CORRELATION NUMBER
40	OBRCORRL	1		CORRELATION NUMBER
41	OBRRSV5	7		RESERVED FOR IBM USE
41	OBRRSV6	7		RESERVED FOR IBM USE
46	OBRRSV1	6		RESERVED FOR IBM USE
46	OBRBLKLN	2		BLOCK LENGTH
48	OBRLSKN	8		LAST SEEK ADDRESS
48	OBRSDR32	10		SDR WORK AREA
48	OBRSDR03	10		SDR WORK AREA
48	OBRTAPST	10		SDR WORK AREA
48	OBRDVDEP	16		DEVICE DEPENDENT DATA
48	OBR8809S	32		8809 SENSE DATA
4A	OBRURSNS	1		UNIT RECORD SENSE DATA
4C	OBRPBN	4		PHYSICAL BLOCK NUMBER
50	OBRHAN	8		HOME ADDRESS
50	OBRRSV2	2		RESERVED FOR IBM USE
52	OBRCCHS	4		CCHS
52	OBR3211S	6		3211 SENSE DATA
52	OBR3203S	24		3203 SENSE DATA

52	OBRTAPSN	24	TAPE SENSE DATA
56	OBRRSV3	2	RESERVED FOR IBM USE
58	OBRSDRWK	10	SDR WORK AREA
58	OBR33SNS	24	3350/3340/3330/2305/3380/3375
58	OBRFBSNS	24	SENSE DATA
58	OBR340ST	20	SDR WORK AREA
62	OBRSENSN	6	SENSE DATA
6C	OBR3400S	24	3400 SENSE
70	OBRRSV4	4	RESERVED FOR IBM USE

CROSS REFERENCE
(Name Disp Value)

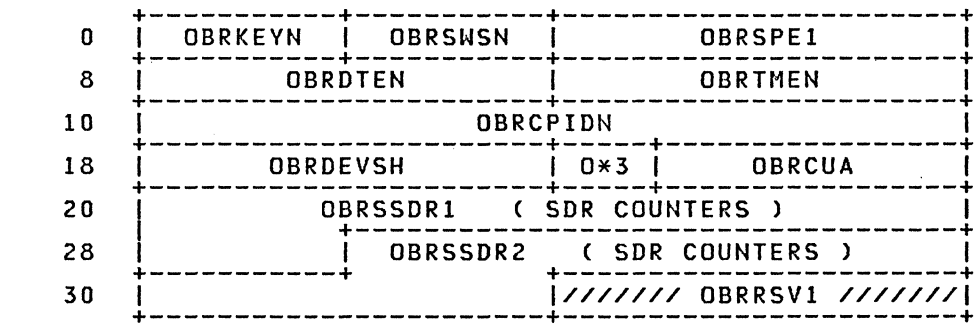
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

OBRBLKLN	0046		OBRFCCWN	0020		OBRRSV5	0041		OBRTMEN	000C	
OBRCCHS	0052		OBRHAN	0050		OBRRSV6	0041		OBRTOD	0002	40
OBRCORL	0040		OBRHSIZE	0000	18	OBRSDRCT	0038		OBRURSNS	004A	
OBRCORRL	0040		OBRIORTY	003C		OBRSDRWK	0058		OBRURST	0040	
OBRCPIDN	0010		OBRKEYN	0000		OBRSDR03	0048		OBRVOLN	0040	
OBRCSWN	0028		OBRLSIZE	0000	40	OBRSDR32	0048		OBR2SIZE	0000	68
OBRCUAIN	0031		OBRLSKN	0048		OBRSENSN	0062		OBR3SIZE	0000	70
OBRCUAPR	0039		OBRMORE	0002	80	OBRSHOBR	0002	20	OBR3203S	0052	
OBRDDCNT	0030		OBRPBN	004C		OBRSNSCT	003E		OBR3211S	0052	
OBRDEMNT	0002	04	OBRPGMN	0018		OBRSPE1	0004		OBR33SNS	0058	
OBRDEVTN	0034		OBRRSV1	0046		OBRSWSN	0002		OBR340ST	0058	
OBRDTEN	0008		OBRRSV2	0050		OBRTAPSN	0052		OBR3400S	006C	
OBRDVDEP	0048		OBRRSV3	0056		OBRTAPST	0048		OBR3505S	0040	
OBREOD	0002	80	OBRRSV4	0070		OBRTEMP	0002	40	OBR8809S	0048	
OBRFBSNS	0058										

OBRRECN: UNIT CHECK ERROR RECORD (SHORT OUTBOARD RECORD)

OBRRECN provides error, sense, and other statistical data needed for error recording on a specified channel-attached I/O device. OBRRECN is found in OBRRECN copy.

SHORT OUTBOARD RECORD



SIZE

SIZE OF SHORT OBR RECORD BASE (OBRSSIZE) 26
SIZE OF OBR IN BYTES (OBRSIZE) 26
SIZE IN DOUBLEWORDS (OBRSIZE2) 06
SIZE IN DOUBLEWORDS (OBRSIZE1) 05

Disp	Name	Len	Key	Description
0	OBRKEYN	2		RECORD TYPE
2	OBRSWSN	002		SWITCHES
	Values defined in OBRSWSN			
	80 OBRMORE			MORE RECORDS FOLLOW
	80 OBREOD			SDR COUNTERS DUMPED AT EOD
	40 OBRTOD			TIME OF DAY CLOCK
	40 OBRTEMP			TEMPORARY ERROR
	20 OBRSHOBR			SHORT OBR
	04 OBRDEMNT			VOLUME DEMOUNT
4	OBRSPE1	4		RESERVED FOR IBM USE
8	OBRDTEN	4		DATE
C	OBRTMEN	4		TIME
10	OBRCPIDN	8		CPU ID AND SERIAL NUMBER
18	OBRPGMN	8		JOB ID
18	OBRDEVSH	4		DEVICE TYPE
1C	OBRSDRSH	1	0*3	NO. OF SDR WORK AREA BYTES

1D	OBRCUA	3	CHANNEL AND UNIT ADDRESS
20	OBRSSDR1	10	SDR WORK AREA
2A	OBRSSDR2	10	SDR WORK AREA
34	OBRRSV1	4	RESERVED FOR IBM USE

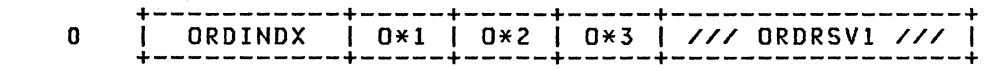
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

OBRCUA	001D	OBRSDRSH	001C	OBRSIZE2	0000 06	OBRSSDR2	002A
OBRDEVSH	0018	OBRSIZE	0000 26	OBRSSDR1	0020	OBRSSIZE	0000 26
OBRRSV1	0034	OBRSIZE1	0000 05				

ORDBLOK: SYSORD LIST ENTRY DESCRIPTION

ORDBLOK specifies paging preference by device type as defined by the SYSORD macro of DMKSYS. ORDBLOK is found in ALLOC copy.



SIZE

ORDBLOK SIZE IN BYTES (ORDSIZE) 8

Disp	Name	Len	Key	Description
0	ORDINDX	2		DMKPGT DEVICE ANCHOR INDEX
2	ORDCLAS	1	0*1	DEVICE CLASS - FBA OR CKD
3	ORDTYPE	1	0*2	DEVICE TYPE - SAME AS DEVTYPE
4	ORDFLAG	1	0*3	DEVICE LEVEL FLAG
	Values defined in ORDFLAG			
	01 ORDLEVEL			NEXT ANCHOR LEVEL INDICATOR
5	ORDRSV1	3		RESERVED FOR IBM USE

CROSS REFERENCE

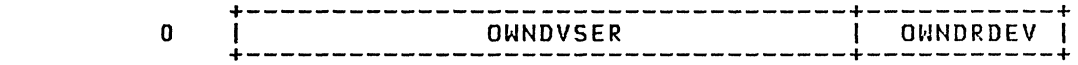
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
ORDCLAS  0002  ..   ORDINDX  0000  ..   ORDRSV1  0005  ..   ORDTYPE  0003  ..
ORDFLAG  0004  ..   ORDLEVEL 0004  01   ORDSIZE  ....   8
```

OWNDLIST: CP-OWNED VOLUME LIST

OWNDLIST contains a list of all the system-owned DASD volumes that are used for paging, spooling, and temporary disk storage activity. Each entry specifies the volume identity and its preferred use (that is, paging/spooling/T-disk space). This block is generated by the SYSOWN macro at system generation time, and is pointed to by DMKSYSOW in the CP load map. OWNDLIST is found in ALLOC copy.



Disp	Name	Len	Key	Description
0	OWNDVSER	6		VOLUME SERIAL NUMBER
6	OWNDRDEV	2		DISPLACEMENT OF RDEVBLOK FOR THE VOLUME

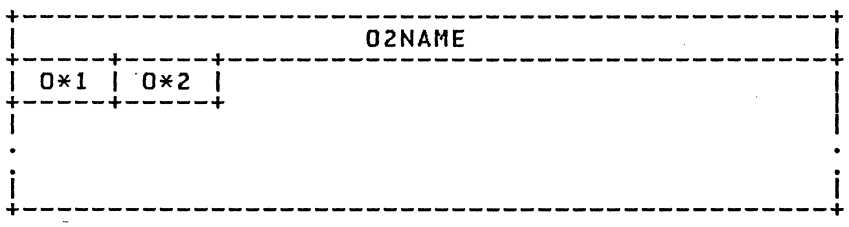
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

OWNDRDEV 0006 .. OWNDVSER 0000 ..

O2ENTRY: OPERAND NUMBER TWO BLOCK

O2ENTRY is a table of the acceptable second operands for the CPTRAP 'typenum' operand. O2ENTRY is found in CPTRAP copy.



SIZE

LENGTH OF EACH ENTRY IN BYTES (O2SIZE) A

Disp	Name	Len	Key	Description
0	O2NAME	8		TRACE ENTRY 'OPTION' NAME... SUCH AS 'VMBLOK'
8	O2LENGTH	1	O*1	MINIMUM LENGTH OF 'O2NAME'
9	O2MAXLEN	1	O*2	ACTUAL LENGTH OF THE 'O2NAME'

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

O2LENGTH 0008 .. O2MAXLEN 0009 .. O2NAME 0000 .. O2SIZE .... A

O3ENTRY: OPERAND NUMBER THREE BLOCK

O3ENTRY is an option table that contains the available options of the 'nnnn' field for each 'typenum' operand specified for the CP command CPTRAP. O3ENTRY is found in CPTRAP copy.

SIZE

LENGTH OF EACH ENTRY IN BYTES (O3SIZE) 2

Disp	Name	Len	Key	Description
0	O3HEXLTH	1	O*1	MAXIMUM LENGTH OF HEX DATA FOLLOWING OPTION
1	O3DISP	1	O*2	DISPLACEMENT INTO TRACE RECORD

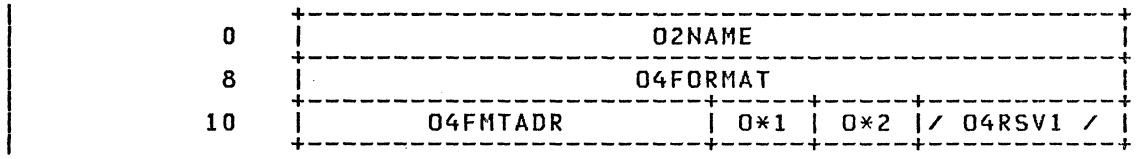
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

O3DISP 0001 .. O3HEXLTH 0000 .. O3SIZE 2

O4ENTRY: OPERAND NUMBER FOUR BLOCK

O4ENTRY contains information concerning the virtual machine types and the format routines for those machine types, if they exist. O4ENTRY is found in CPTRAP copy.



Disp	Name	Len	Key	Description
0	O4NAME	8		MNEMONIC NAME FOR MACHTYPE
8	O4FORMAT	8		NAME OF FORMAT ROUTINE FOR MACHTYPE
10	O4FMTADR	4		ADDRESS OF FORMAT ROUTINE
14	O4MINLEN	1	O*1	MINIMUM LENGTH FOR NAME RECOGNITION
15	O4VALUE	1	O*2	MACHTYPE VALUE FOR MNEMONIC NAME
	Values defined in O4VALUE			
18	O4SIZE			LENGTH OF ENTRY IN BYTES
16	O4RSV1	2		RESERVED FOR IBM USE

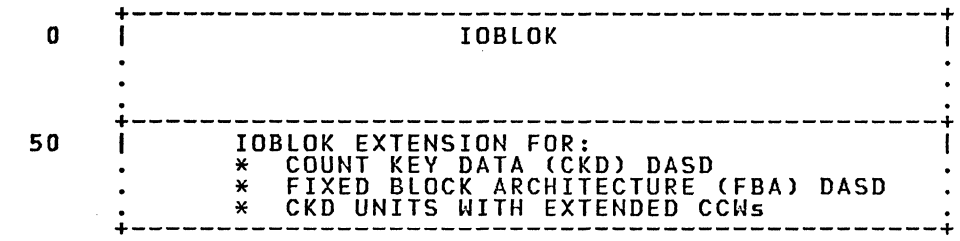
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

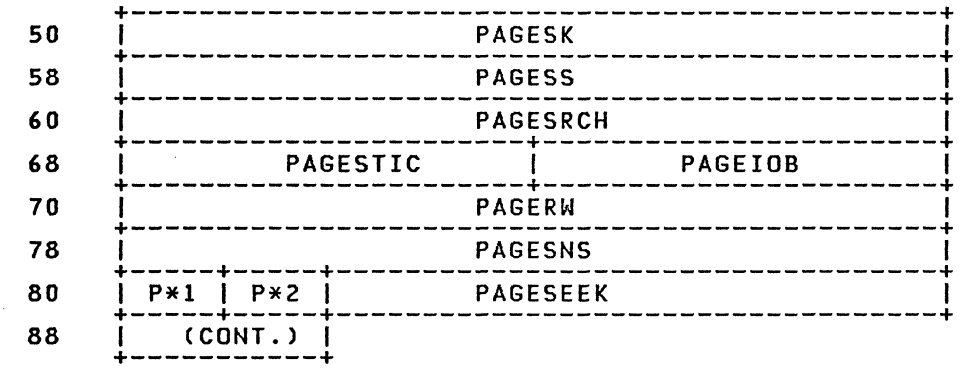
O4FMTADR	0010	..	O4MINLEN	0014	..	O4RSV1	0016	..	O4VALUE	0015	..
O4FORMAT	0008	..	O4NAME	0000	..	O4SIZE	0015	18			

PAGEXT: IOBLOK EXTENSION FOR DASD UNITS

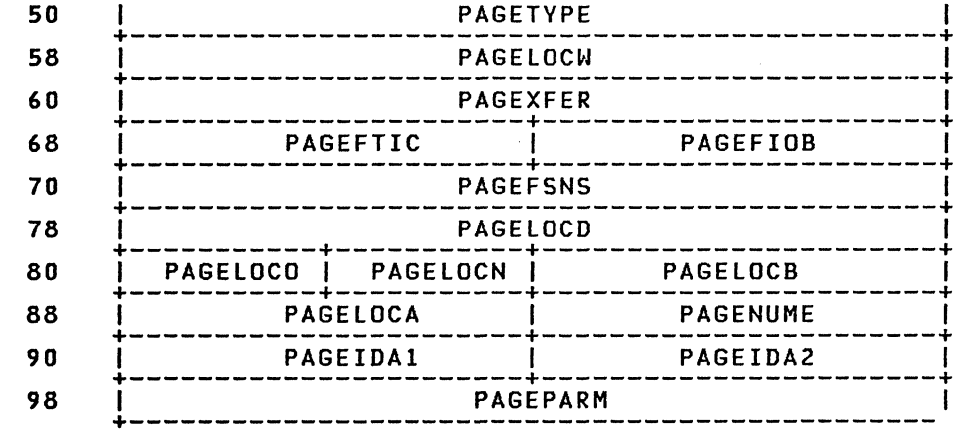
The PAGEXT DSECT defines the paging IOBLOK extension. It also contains the swapping IOBLOK extension, PAGSWEXT. It consists of two dsects. One is used for the swap CCWs, and the other contains the search arguments and the indirect data addresses. The first word of the extension is used for chaining unused blocks. PAGEXT is found in PAGEXT copy.



COUNT KEY DATA (CKD) DASD EXTENSION



FIXED BLOCK ARCHITECTURE (FBA) EXTENSION



```
      +-----------+
100   |  (CONT.)  |
      +-----------+
```

CKD UNITS WITH EXTENDED CCWs

```
      +-----------------------------------------------+
 50   |                  PAGEXDEF                     |
      +-----------------------------------------------+
 58   |                  PAGEXRW                      |
      +-----------------------------------------------+
 60   |                  PAGEXRW                      |
      +-----------------------+-----------------------+
 68   |       PAGEXTIC        |       PAGEIOB         |
      +-----------------------+-----------------------+
 70   |                  PAGEXSNS                     |
      +-----------------------------------------------+
 78   |                                               |
      :                                               :
      :                  PAGEXDED                     :
      :                                               :
      |                                               |
      +-----+-----+-----------+-----------+-----------+
 90   | P*3 | P*4 |  PAGEBLK  |       PAGEXRES        |
      +-----+-----+-----------+-----------+-----------+
 98   |  PAGEXBCC |  PAGEXBHH |  PAGEXECC |  PAGEXEHH |
      +-----------+-----------+-----+-----+-----------+
 A0   |                                               |
      :                                               :
      :                  PAGEXLRD                     :
      :                                               :
      |                                               |
      +-----------------------------------------------+
 A8   | P*5 | P*6 |  PAGEXRNO |  PAGEXSKC |  PAHEXSKH |
      +-----+-----+-----------+-----------+-----------+
 B0   |  PAGEXSHC |  PAGEXSHH | P*7 | P*8 |  PAGEXTLF |
      +-----------+-----------+-----+-----+-----------+
 B8   |       PAGXIDA1        |       PAGXIDA2        |
      +-----------------------+-----------------------+
```

Swapping IOBLOK extension PAGSWEXT

```
      +-----------------------------------------------+
 0    |                  PAGSWSCH                     |
      +-----------------------------------------------+
 8    |                  PAGSWTIC                     |
      +-----------------------------------------------+
 10   |                  PAGSWRW      (PAGSWCHN)      |
      +-------------------------------+---------------+
```

PAGSWS DSECT

```
      +-----------------------------------------------+
 0    |                  PAGSWNOP                     |
      +-------------------------------+---------------+
 8    |          PAGSWARG             |/////PAGSWRV1////|
      +-----------------------+-------+---------------+
 10   |       PAGSWDA1        |       PAGSWDA2        |
      +-----------------------+-----------------------+
```

SIZE OF IOBLOK EXT FOR FBA DEVICES IN DOUBLEWORDS (PAGEXSIZ) 14
SIZE OF IOBLOK EXTENSION FOR CKD DEVICES IN DOUBLEWORDS (PAGESIZE) 14

Disp	Name	Len	Key	Description
0	PAGSWEXT	DSECT		VM SWAP IOBLOK EXTENSION
0	PAGSWSCH	8		SEARCH CCW
8	PAGSWTIC	8		TIC CCW
10	PAGSWRW	8		READ/WRITE CCW
	ORG PAGSWEXT+IOBMISC-IOBLOK			
014	PAGSWCHN			POINTER TO NEXT EXTENSION ON FREE QUEUE PLACED HERE SO DMKUSP CAN EASILY FIND AND FRET IT
0	PAGSWS DSECT			
0	PAGSWNOP	8		'NOP' CCW TO FORCE CE/DE
8	PAGSWARG	5		SEARCH ARGUMENT
D	PAGSWRV1	3		RESERVED FOR IBM USE
10	PAGSWDA1	4		INDIRECT DATA ADDRESS LIST
14	PAGSWDA2	4		
	ORG PAGSWARG			
8	PAGSWCC	2		CC - CYLINDER NUMBER
A	PAGSWHH	2		HH - HEAD NUMBER
C	PAGSWR	1		R - RECORD NUMBER
50	PAGECCWS	48		SPACE FOR PAGING CCWS
50	PAGESK	8		SPACE FOR SEEK OR SET PAGE PARAMETER
50	PAGEDFXT	8		DEFINE EXTENT
50	PAGETYPE	8		DEFINE EXTENT OPCODE IDENTIFIES FBA IOBLOK
50	PAGEXDEF	8		DEFINE EXTENT CCW
58	PAGESS	8		SPACE FOR SET SECTOR
58	PAGELOCW	8		LOCATE CCW
58	PAGEXLR	8		LOCATE RECORD CCW
60	PAGESRCH	8		SPACE FOR SEARCH
60	PAGEXFER	8		READ OR WRITE DATA TRANSFER
60	PAGEXRW	8		READ/WRITE DATA TRANSFER
64	PAGEXFLG	1		READ/WRITE CCW FLAG BYTE
68	PAGESTIC	4		SPACE FOR TIC
68	PAGEFTIC	4		TIC TO SENSE OR NEXT DATA XFER
68	PAGEXTIC	4		TIC TO NEXT DATA TRANSFER
6C	PAGEIOB	4		POINTER TO SLOT SORTED IOBLOK

70	PAGERW	8		SPACE FOR READ/WRITE
70	PAGEFSNS	8		SENSE CCW TO END CHAIN
70	PAGEXSNS	8		SENSE CCW TO END CHAIN
71	PAGEXT2	1		SECOND BYTE FOR EASY HANDLING
72	PAGEXTR	2		2-BYTE FOR SLOT / TRACK
75	PAGEPRI	1		SPACE FOR REQUEST PRIORITY
76	PAGEXSLT	2		TWO BYTE FOR SLOT NUMBER
77	PAGEXSL1	1		SECOND BYTE OF PAGEXSLT
78	PAGESNS	8		SPACE FOR SENSE/TIC
78	PAGELOCD	8		LOCATE ARGUMENT
78	PAGELOCO	2		OPERATION AND AUX BYTES
78	PAGEXDED	24		DEFINE EXTENT DATA
7A	PAGELOCN	2		BLOCK COUNT (IN BLOCKS PER PAGE)
7C	PAGELOCB	4		BLOCK NUMBER
7E	PAGESLOT	2		TWO-BYTE SLOT NUMBER FOR 3375
7F	PAGESRCD	1		SPACE FOR SLOT NUMBER
80	PAGESEEK	8		SPACE FOR SEEK ARGUMENT AND SECTOR
80	PAGELOCA	4		ADDRESS OF LOCATE DATA USED IN I/O OPERATION
82	PAGECYL	2		SPACE FOR CYLINDER ADDRESS
84	PAGEHEAD	2		SPACE FOR HEAD ADDRESS
84	PAGENUME	4		FBA PAGE NUMBER INVOLVED
86	PAGERCD	1		SPACE FOR RECORD NUMBER
87	PAGESECT	1		SECTOR NUMBER
88	PAGEIDA1	4		IDA WORD 1
8C	PAGEIDA2	4		IDA WORD 2
90	PAGEPARM	10		3880 SET PAGE PARAMETER FIELD
90	PAGEXMSK	1	P*3	MASK BYTE
91	PAGEXATT	1	P*4	ATTRIBUTE BYTE
92	PAGEXBLK			BLOCKSIZE IN BYTES
94	PAGEXRES	4		RESERVED FOR IBM USE
98	PAGEXBCC	2		BEGINNING CYLINDER EXTENT 'CC'
9A	PAGEXBHH	2		BEGINNING HEAD EXTEND 'HH'
9C	PAGEXECC	2		ENDING CYLINDER EXTENT 'CC'

9E	PAGEXEHH	2		ENDING HEAD EXTENT 'HH'
A0	PAGEXLRD	24		LOCATE RECORD DATA
B8	PAGEXOP	1	P*5	OPERATION CODE
B9	PAGEXAUX	1	P*6	AUXILIARY BYTE
BA	PAGEXRNO	2		NUMBER OF RECORDS TO BE PROCESSED
BC	PAGEXSKC	2		SEEK CYLINDER 'CC'
BE	PAGEXSKH	2		SEEK HEAD 'HH'
C0	PAGEXSHC	2		SEARCH CYLINDER 'CC'
C2	PAGEXSHH	2		SEARCH HEAD 'HH'
C4	PAGEXSHR	1	P*7	SEARCH RECORD NUMBER 'R'
C5	PAGEXSS	1	P*8	SET SECTOR VALUE 'S'
C6	PAGEXTLF	2		TRANSFER LENGTH FACTOR
98	PAGXIDA1	4		IDA WORD 1
9C	PAGXIDA2	4		IDA WORD 2

CROSS REFERENCE
(Name Disp Value)

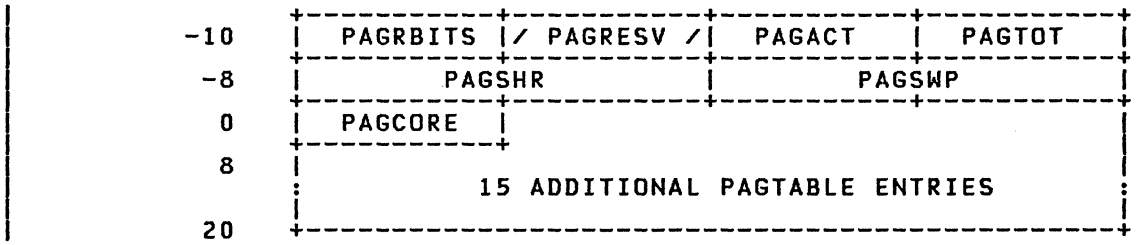
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PAGECCWS	0050	PAGERCD	0086	PAGEXDEF	0050	PAGEXSL1	0077
PAGECYL	0082	PAGERW	0070	PAGEXECC	0084	PAGEXSNS	0070
PAGEDFXT	0050	PAGESECT	0087	PAGEXEHH	0086	PAGEXSS	0095
PAGEFBAT	0050 63	PAGESEEK	0080	PAGEXFER	0060	PAGEXTIC	0068
PAGEFIOB	006C	PAGESIZE	0000 14	PAGEXFLG	0064	PAGEXTLF	0096
PAGEFSNS	0070	PAGESK	0050	PAGEXLR	0058	PAGSWSCH	0000
PAGEFTIC	0068	PAGESLOT	007E	PAGEXLRD	0088	PAGSWTIC	0008
PAGEHEAD	0084	PAGESNS	0078	PAGEXMSK	0078	PAGSWRW	0010
PAGEIDA1	0088	PAGESRCD	007F	PAGEXOP	0088	PAGSWARG	0000
PAGEIDA2	008C	PAGESRCH	0060	PAGEXRES	007C	PAGSWRV1	0005
PAGEIOB	006C	PAGESS	0058	PAGEXRNO	008A	PAGSWCC	0008
PAGELOCA	0080	PAGESTIC	0068	PAGEXRW	0060	PAGSWCHN	0014
PAGELOCB	007C	PAGETYPE	0050	PAGEXSHC	0090	PAGSWDA1	0008
PAGELOCD	0078	PAGEXATT	0079	PAGEXSHH	0092	PAGSWDA2	0012
PAGELOCN	007A	PAGEXAUX	0089	PAGEXSHR	0094	PAGSWHH	000A
PAGELOCO	0078	PAGEXBCC	0080	PAGEXSIZ	0000 14	PAGSWNOP	0000
PAGELOCW	0058	PAGEXBHH	0082	PAGEXSKC	008C	PAGSWR	000C
PAGENUME	0084	PAGEXBLK	007A	PAGEXSKH	008E	PAGXIDA1	0098
PAGEPARM	0090	PAGEXDED	0078	PAGEXSLT	0076	PAGXIDA2	009C
PAGEPRI	0075						

PAGTABLE: TRANSLATION PAGE TABLE

PAGTABLE is used by CP for allocating and referencing storage. It is referenced by the segment table (SEGTABLE) data area and contains a pointer to the swap table (SWPTABLE) which, in turn, is related to a DASD cylinder location. The SWPPAG field of SWPTABLE points to PAGTABLE. PAGTABLE is found in CORE copy or in this manual under CORTABLE.

Note: In both attached processor (AP) and multiprocessor (MP) modes (except when running a 308x Processor Complex), there are two sets of page tables (PAGTABLEs) for each shared segment, one for the IPL processor and one for the non-IPL processor. The page table for the non-IPL processor will be set at a fixed displacement (PAGBMP) from those of the main processor. In the case of a 308x Processor Complex with virtual machine assist segment protection extension, the control program maintains only one set of page tables.



Disp	Name	Len	Key	Description
0	PAGRBITS	2		PAGE SLOT REFERENCE BITS
2	PAGRESV	2		RESERVED FOR IBM USE
4	PAGACT	2		ACTIVE SEGMENT TABLE ENTRY COUNT
6	PAGTOT	2		TOTAL SEGMENT TABLE ENTRY COUNT
8	PAGSHR	4		POINTER TO SHRTABLE
C	PAGSWP	4		POINTER TO SWPTABLE
10	PAGCORE	2		REAL PAGE ADDRESS

Values defined in PAGCORE

08	PAGINVAL	PAGTABLE ENTRY INVALID
01	PAGREF	PAGE HAS BEEN REFERENCED

CROSS REFERENCE
(Name Disp Value)

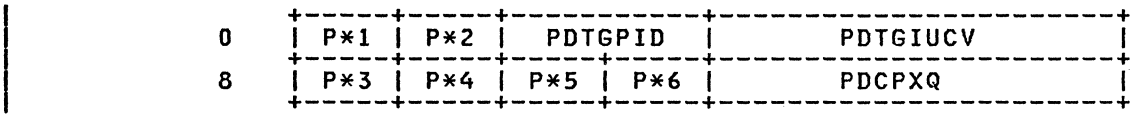
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PAGACT 0004 .. PAGBMP .... C0 PAGCORE 0010 .. PAGINVAL 0010 08

```
PAGPGSWP ....  80 | PAGRESV  0002  ..   PAGSWP   000C  ..   PAGTOT   0006  ..
PAGRBITS 0000  ..   PAGSHR   0008  ..   PAGTBSIZ ....   9   PAGTSWP  ....  30
PAGREF   0010  01
```

PDENT: PATH DESCRIPTION ENTRY CONTROL BLOCK

PDENT is one entry in a path descriptor segment. Each entry contains information about a communicator's view of one path. The entry is created when the CONNECT function is invoked and remains valid until a corresponding SEVER is issued. The entry contains information regarding the number of messages on the path, the target communicator and the path status. PDENT is found in IUCVBLOK copy.



SIZE

PDENT SIZE IN DOUBLEWORDS (PDSIZE) 2

Disp	Name	Len	Key	Description
0	PDMSGCT	1	P*1	COUNT OF OUTSTANDING MESSAGES ON THE PATH
1	PDFLAGS	1	P*2	STATUS

Values defined in PDFLAGS

00	PDZERO	PDEND INVALID AND AVAILABLE
80	PDVALID	VALID PATH
40	PDSEND	SENDING ALLOWED ON THIS PATH
20	PDPRTY	MAY INITIATE PRIORITY MESSAGES
10	PDPRMD	MAY SEND MESSAGES IN PARMLIST
08	PDINUSE	THIS SIDE OF THE PATH IS IN USE
04	PDCNTRL	CONTROL PATH
03	PDAVAIL	ENTRY IS AVAILABLE
03	PDSEVERD	ENTRY HAS BEEN SEVERED
02	PDPEND1	INITIATED CONNECTION
01	PDPEND2	INCOMING CONNECTION
01	PDSINV	PDSEG INVALID BIT

2	PDTGPID	2		TARGET PATH ID
4	PDTGIUCV	4		TARGET IUCVBLOK ADDRESS
8	PDMSGLIM	1	P*3	OUTSTANDING MESSAGE LIMIT
9	PDFCNCD	1	P*4	FUNCTION CODE FOR CP PATH

Values defined in PDFCNCD

02	PDFCBIO	CODE FOR *BLOCKIO SYSTEM SERVICE
01	PDFCMSG	CODE FOR *MSG SYSTEM SERVICE
00	PDFCCCS	CODE FOR *CCS SYSTEM SERVICE

A	PDAPPCFL	1	P*5	APPC FLAGS

Values defined in PDAPPCFL

```
    80 PDAPPC              APPC/VM PATH
    40 PDAPSYCF            SENDCNF/SENDCNFD PERMITTED
    20 PDAPRECQ            MSGBLOK QUEUED ON RECEIVE QUEUE
    10 PDAPSNDQ            MSGBLOK QUEUED ON SEND QUEUE
    08 PDAPPEND            FUNCTION PENDING ON THIS PATH
    04 PDAPREQS            SENDREQ PENDING ON THIS PATH
    02 PDAPMSGP            MESSAGE PENDING BUT NOT IN RECEIVE STATE
    01 PDAPLOCK            PATH IN USE

B   PDSTATE    1 P*6   APPC STATE FLAGS

    Values defined in PDSTATE

    80 PDSTCONN            USER IN CONNECT STATE
    40 PDSTSEND            USER IN SEND STATE
    20 PDSTRECV            USER IN RECEIVE STATE
    10 PDSTCONF            USER IN CONFIRM STATE
    08 PDSTSEVR            USER IN SEVER STATE
    01 PDSTALLC            ALLOCATE STATE AND RECEIVE STATE

C   PDCPXQ     4           CPEXBLOKS ENQUEUED FOR THIS PATH

C   PDALLOCD   4           ALLOCATE DATA - CONNECT STATE ONLY

C   PDLRECL    2           LENGTH REMAINING IN LOGICAL RECORD

E   PDFLAGS2   1           FLAG BYTE

    Values defined in PDFLAGS2

    80 PDLRCINV            ONLY FIRST BYTE OF LENGTH VALID
```

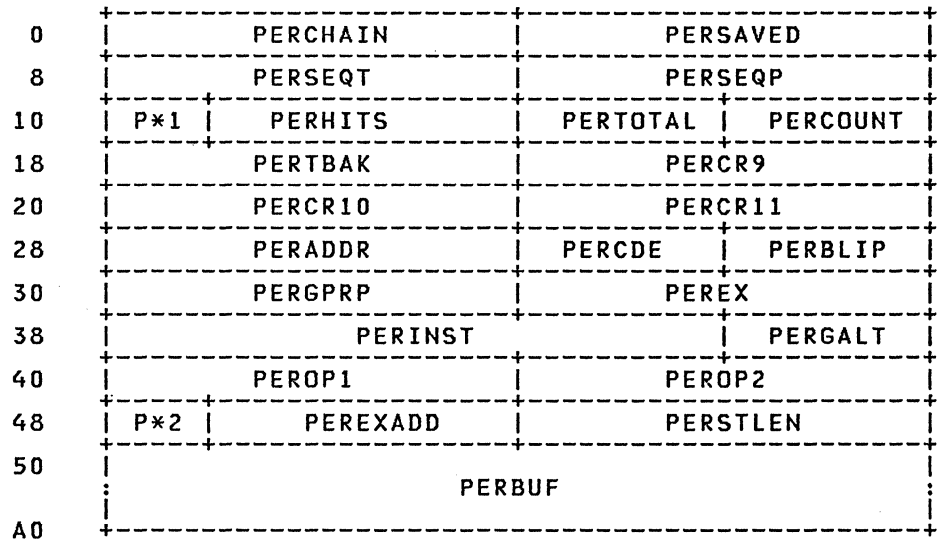
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
PDALLOCD 000C  ..    PDCPXQ   000C  ..    PDLRECL  000C  ..    PDSTALLC 000B  01
PDAPLOCK 000A  01    PDENTMAX ....  100   PDMSGCT  0000  ..    PDSTATE  000B  ..
PDAPMSGP 000A  02    PDENTMIN ....    8   PDMSGLIM 0008  ..    PDSTCONF 000B  10
PDAPPC   000A  80    PDFCBIO  0009  02    PDPEND1  0001  02    PDSTCONN 000B  80
PDAPPCFL 000A  ..    PDFCCCS  0009  00    PDPEND2  0001  01    PDSTRECV 000B  20
PDAPPEND 000A  08    PDFCMSG  0009  01    PDPRMD   0001  10    PDSTSEND 000B  40
PDAPRECQ 000A  20    PDFCNCD  0009  ..    PDPRTY   0001  20    PDSTSEVR 000B  08
PDAPREQS 000A  04    PDFLAGS  0001  ..    PDSEND   0001  40    PDTGIUCV 0004  ..
PDAPSNDQ 000A  10    PDFLAGS2 000E  ..    PDSEVERD 0001  03    PDTGPID  0002  ..
PDAPSYCF 000A  40    PDINUSE  0001  08    PDSINV   0001  01    PDVALID  0001  80
PDAVAIL  0001  03    PDLRCINV 000E  80    PDSIZE   ....    2   PDZERO   0001  00
PDCNTRL  0001  04
```

PERBLOK: PER TRACE CONTROL BLOCK

The PERBLOK is used for the CP PER command and represents a virtual machine with PER active. It contains copies of control registers 9, 10, and 11, and pointers to the PEXBLOK and PESBLOK chains. It also contains control bits indicating what events are to be traced, and additional information about the current traceset. The PERBLOK is pointed to by VMPERCTL in the VMBLOK. PERBLOK is found in PERBLOKS copy.



SIZE

SIZE OF WORKAREA (PERWKLEN) 22
PERBLOK SIZE IN DOUBLEWORDS (PERSIZE) 14

Disp	Name	Len	Key	Description
0	PERCHAIN	4		ANCHOR FOR CURRENT PEXBLOK CHAIN
4	PERSAVED	4		ANCHOR FOR SAVED TRACE SETS
8	PERSEQT	4		ADDRESS OF NEXT INSTRUCTION - TERMINAL OUTPUT
C	PERSEQP	4		ADDRESS OF NEXT INSTRUCTION - PRINTER OUTPUT
10	PERFLAG	1	P*1	PER FLAG
	Values defined in PERFLAG			
80	PERCTACT			PER COUNT OPTION IN EFFECT
20	PERDATON			VIRTUAL MACHINE HAS DAT
11	PERHITS	3		NUMBER OF PER HITS FOR PER COUNT
14	PERTOTAL	2		TOTAL NUMBER OF PEXBLOKS

16	PERCOUNT	2		COUNT OF PEXBLOKS IN THE CURRENT TRACESET
18	PERTBAK	4		ADDRESS OF BRANCH TRACEBACK TABLE
1C	PERCR9	4		CONTROL REGISTER 9
20	PERCR10	4		CONTROL REGISTER 10
24	PERCR11	4		CONTROL REGISTER 11
28	PERADDR	4		PER EVENT ADDRESS
2C	PERCDE	2		PER EVENT CODE
2E	PERBLIP	2		PER BLIP COUNT
30	PERGPRP	4		ADDRESS OF REGISTERS FOR REGISTER TRACE
34	PEREX	4		EXECUTE INSTRUCTION
38	PERINST	6		INSTRUCTION
3E	PERGALT	2		ALTERED REGISTER FLAGS
40	PEROP1	4		FIRST OPERAND ADDRESS
	Values defined in PEROP1			
	80 PEROPNOT			OPERAND NOT DEFINED
	40 PEROPQU			OPERAND ADDRESS MAY BE INVALID
44	PEROP2	4		SECOND OPERAND ADDRESS
48	PEREXMOD	1	P*2	EXECUTE MODIFIER BYTE
49	PEREXADD	3		ADDRESS OF EXECUTED INSTRUCTION
4C	PERSTLEN	4		LENGTH OF STORAGE ALTERED
50	PERBUF	80		CONSOLE/PRINTER OUTPUT BUFFER
50	PERWORK	0		WORK AREA OF THE PERBLOK
50	PERTMPCH	4		ADDRESS OF TEMPORARY PEXBLOK CHAIN
54	PERCNTCH	4		ADDRESS OF CURRENT PEXBLOK CHAIN
58	PERRNGTB	4		ADDRESS OF RANGE TABLE
5C	PERPASCT	2		PASS COUNT
5E	PERSTPCT	2		STEP COUNT
60	PERSCAN	8		SCAN LENGTH AND ADDRESS
60	PERSCDLN	4		LENGTH OF LAST PARAMETER FOUND
64	PERSCADD	4		ADDRESS OF LAST PARAMETER FOUND
68	PERCMDPT	4		ADDRESS OF COMMAND BUFFER FOR COMMAND
6C	PERWRKCT	2		COUNT OF PEXBLOKS NEWLY CREATED
6E	PEROPTN	2		OPTION SPECIFIED FLAG

```
6E    PERON       1       FLAGS TO TURN ON IN PEXBLOK

6F    PEROFF      1       FLAGS TO TURN OFF IN PEXBLOK

70    PERWKFLG    1       WORK FLAG

  Values defined in PERWKFLG

  80 PERPUSED             PARAMETER POINTED TO BY PERSCADD WAS USED
  40 PERLNEND             END OF COMMAND LINE
  20 PERANYTH             AT LEAST ONE KEYWORD WAS ENTERED
  10 PERENDIT             ALL OPTION SPECIFIED FOR PER END
  08 PERAPPND             APPEND SPECIFIED FOR SAVE OR GET
  02 PERPASSP             PASS WAS SPECIFIED ON INPUT LINE
  01 PERSTPSP             STEP WAS SPECIFIED ON INPUT LINE

71    PERWKFL2    1       WORK FLAG

  Values defined in PERWKFL2

  80 PERERROR             ERROR OCCURRED PROCESSING INPUT
  40 PERCHANG             CHANGE MADE TO CURRENT TRACESET
  20 PERCTEND             END COUNT SPECIFIED
  10 PERINTO              INTO KEYWORD WAS SPECIFIED
  08 PERDATA              DATA KEYWORD WAS SPECIFIED
  04 PERCLEAR             CLEAR ELIMINATE FLAGS ON ERROR
```

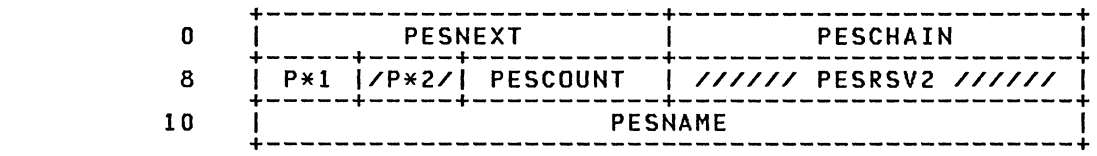
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
PERADDR  0028  ..    PERCTEND 0071  20    PERON    006E  ..    PERSEQP  000C  ..
PERANYTH 0070  20    PERDATA  0071  08    PEROPNOT 0040  80    PERSEQT  0008  ..
PERAPPND 0070  08    PERDATON 0010  20    PEROPQU  0040  40    PERSIZE  ....  14
PERBLIP  002E  ..    PERENDIT 0070  10    PEROPTN  006E  ..    PERSTLEN 004C  ..
PERBUF   0050  ..    PERERROR 0071  80    PEROP1   0040  ..    PERSTPCT 005E  ..
PERCDE   002C  ..    PEREX    0034  ..    PEROP2   0044  ..    PERSTPSP 0070  01
PERCHAIN 0000  ..    PEREXADD 0049  ..    PERPASCT 005C  ..    PERTBAK  0018  ..
PERCHANG 0071  40    PEREXMOD 0048  ..    PERPASSP 0070  02    PERTBLEN ....  60
PERCLEAR 0071  04    PERFLAG  0010  ..    PERPUSED 0070  80    PERTMPCH 0050  ..
PERCMDPT 0068  ..    PERGALT  003E  ..    PERREGSV ....   8    PERTOTAL 0014  ..
PERCNTCH 0054  ..    PERGPRP  0030  ..    PERRNGTB 0058  ..    PERWKFLG 0070  ..
PERCOUNT 0016  ..    PERHITS  0011  ..    PERSAVED 0004  ..    PERWKFL2 0071  ..
PERCR10  0020  ..    PERINST  0038  ..    PERSCADD 0064  ..    PERWKLEN ....  22
PERCR11  0024  ..    PERINTO  0071  10    PERSCAN  0060  ..    PERWORK  0050  ..
PERCR9   001C  ..    PERLNEND 0070  40    PERSCDLN 0060  ..    PERWRKCT 006C  ..
PERCTACT 0010  80    PEROFF   006F  ..
```

PESBLOK: PER SAVED TRACE SET POINTER BLOCK

The PESBLOK is used for the PER command to represent a saved traceset. The PESBLOK contains the name of the saved traceset. It also contains a pointer to the chain of PEXBLOKs that represent the trace elements in the saved traceset. The PESBLOK chain is pointed to by PERSAVED in the PERBLOK. The next PESBLOK on the chain is pointed to by the PESNEXT field of the previous PESBLOK. PESBLOK is found in PERBLOKs copy.



SIZE

PESBLOK SIZE IN DOUBLEWORDS (PESSIZE) 03

Disp	Name	Len	Key	Description
0	PESNEXT	4		ADDRESS OF NEXT PESBLOK
4	PESCHAIN	4		ADDRESS OF CHAIN OF SAVED PEXBLOKS
8	PESFLAG	1	P*1	FLAGS FOR THIS TRACESET
	Values defined in PESFLAG			
10	PESELIM			FRET THIS SAVED TRACESET
9	PESRSV1	1	P*2	RESERVED FOR IBM USE
A	PESCOUNT	2		COUNT OF PEXBLOKS IN THIS SAVED TRACESET
C	PESRSV2	4		RESERVED FOR IBM USE
10	PESNAME	8		NAME OF SAVED TRACE SET

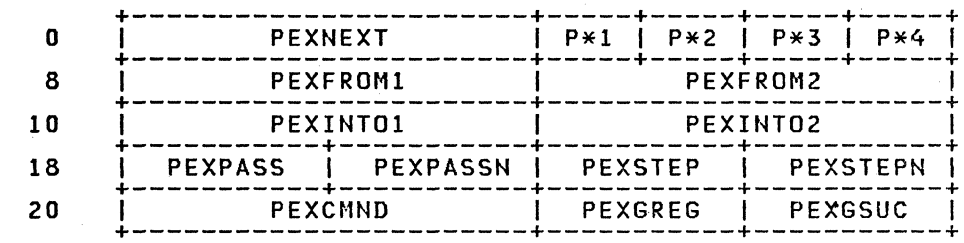
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
PESCHAIN 0004       PESFLAG  0008       PESNEXT  0000       PESRSV2  000C
PESCOUNT 000A       PESNAME  0010       PESRSV1  0009       PESSIZE  0000 03
PESELIM  0008 10
```

PEXBLOK: PER TRACE ELEMENT CONTROL BLOCK

The PEXBLOK is used for the PER command and represents a specific trace element. A chain of PEXBLOKs represents a traceset. The PEXBLOK chain is pointed to by PERCHAIN in the PERBLOK . The next PEXBLOK on the chain is pointed to by the PEXNEXT field of the previous PEXBLOK. PEXBLOK is found in PERBLOKS copy.



SIZE

PEXBLOK SIZE IN DOUBLEWORDS (PEXSIZE) 5

Disp	Name	Len	Key	Description
0	PEXNEXT	4		POINTER TO NEXT PEXBLOK IN CHAIN. THE FIELDS PEXFLAG0 THROUGH PEXFLAG2 MUST BE KEPT CONTIGUOUS AND IN THE CURRENT ORDER.
4	PEXMECMP	4		USED BY MERGE ROUTINE OF DMKPELCH TO COMPARE OPTIONS, EVENT TYPE, PEXBLOK SIZE, AND DATA LENGTH.
4	PEXFLAGO	1	P*1	OPTION FLAGS

Values defined in PEXFLAGO

80	PEXPRINT	OUTPUT TO GO TO PRINTER
40	PEXTERM	OUTPUT TO GO TO TERMINAL
20	PEXRUN	RUN OPTION ON
10	PEXELIM	ELIMINATE THIS PEXBLOK
08	PEXSUCC	DISPLAY THE INFORMATION IN THIS PEXBLOK
04	PEXDINV	DATA IN PEXBLOK IS INVALID

5	PEXCHCMP	19		USED BY THE CHANGE ROUTINE OF DMKPELCH TO COMPARE EVENT TYPE, PEXBLOK SIZE, DATA LENGTH, FROM RANGES, AND INTO RANGES.
5	PEXFLAGT	1	P*2	ELEMENT TYPE

Values defined in PEXFLAGT

80	PEXBR	BRANCH ELEMENT
40	PEXINST	INSTRUCT ELEMENT
28	PEXMASK	BIT ALTERATION
20	PEXSTORE	STORAGE ALTERATION ELEMENT
10	PEXGPR	GEN REG ALTERATON ELEMENT

6	PEXLEN	1	P*3	LENGTH OF BLOCK IN DOUBLEWORDS
7	PEXDLEN	1	P*4	LENGTH OF DATA FOR DATA STOP
8	PEXRANGE	16		FROM AND INTO RANGES
8	PEXFROM	8		INSTRUCTION ADDRESS RANGE
8	PEXFROM1	4		FIRST ADDRESS IN FROM RANGE
C	PEXFROM2	4		SECOND ADDRESS IN FROM RANGE
10	PEXINTO	8		INSTRUCTION ADDRESS RANGE
10	PEXINTO1	4		FIRST ADDRESS IN INTO RANGE
14	PEXINTO2	4		SECOND ADDRESS IN INTO RANGE
18	PEXPASS	2		NUMBER OF DISPLAYS TO BE SKIPPED
1A	PEXPASSN	2		CURRENT PASS COUNT
1C	PEXSTEP	2		NUMBER OF DISPLAYS BEFORE STOP
1E	PEXSTEPN	2		CURRENT STEP COUNT
20	PEXCMND	4		POINTER TO COMMAND BUFFER
24	PEXGREG	2		GENERAL REGISTER FLAGS
26	PEXGSUC	2		REGISTERS TO DISPLAY
28	PEXDATA	0		START OF DATA FOR DATA STOPS

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PEXBR	0005 80	PEXFROM	0008	PEXINTO2	0014	PEXRANGE	0008
PEXCHCMP	0005	PEXFROM1	0008	PEXLEN	0006	PEXRUN	0004 20
PEXCMND	0020	PEXFROM2	000C	PEXMASK	0005 28	PEXSIZE	0000 05
PEXDATA	0028	PEXGPR	0005 10	PEXMECMP	0004	PEXSTEP	001C
PEXDINV	0004 04	PEXGREG	0024	PEXNEXT	0000	PEXSTEPN	001E
PEXDLEN	0007	PEXGSUC	0026	PEXPASS	0018	PEXSTORE	0005 20
PEXELIM	0004 10	PEXINST	0005 40	PEXPASSN	001A	PEXSUCC	0004 08
PEXFLAGO	0004	PEXINTO	0010	PEXPRINT	0004 80	PEXTERM	0004 40
PEXFLAGT	0005	PEXINTO1	0010				

PFDATA: PROGRAM FUNCTION DATA

PFDATA is a variable length string. The total length is less than or equal to the length of CONBUF. The PFKADDR field in PFKTABLE points to PFDATA. PFDATA is found in PFKTABLE copy.

Disp	Name	Len	Key	Description
0	PFDTEXT	240		TEXT ASSOCIATED WITH PF-KEY
0	PFDCMD	4		PF-KEY COMMAND
4	PFDVAL	236		ONE BYTE TAB VALUES
4	PFDCPYSP	1		SINGLE BLANK
5	PFDCPYAD	3		COPY PRINTER ADDRESS
5	PFDCPAD4	4		4-DIGIT COPY PRINTER ADDRESS

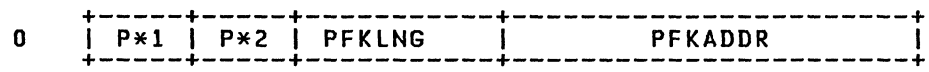
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
PFDCMD   0000  ..   PFDCPYAD 0005  ..   PFDTEXT  0000  ..   PFDVAL   0004  ..
PFDCPAD4 0005  ..   PFDCPYSP 0004  ..
```

PFKTABLE: PROGRAM FUNCTION KEY TABLE

The PF key table is an array consisting of 24 entries. Each entry has the format shown below. The VMPFUNC field in VMBLOK points to PFKTABLE. PFKTABLE is found in PFKTABLE copy.



SIZE

LENGTH OF PFKTABLE ENTRY IN BYTES (PFKSIZE) 8
SIZE OF PFKTABLE IN BYTES (PFKTBLSZ) 18
NUMBER OF PF-KEYS (PFCOUNT) 24

Disp	Name	Len	Key	Description
0	PFKFLAG	1	P*1	FLAGS
	Values defined in PFKFLAG			
80	PFKIMM			1 - 'IMMEDIATE' PF-KEY 0 - 'DELAY' PF-KEY
40	PFKRET			'RETRIEVE' PF-KEY
0	PFDCPYAD	4		COPY PRINTER ADDRESS
1	PFKDWDS	1	P*2	LENGTH OF PF-KEY DATA IN DWORDS
2	PFKLNG	2		LENGTH OF PF-KEY DATA IN BYTES
4	PFKADDR	4		ADDRESS OF PF-KEY DATA

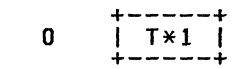
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PFDCPYAD	0000	PFKDWDS	0001	PFKLNG	0002	PFKSIZE	0000 08
PFKADDR	0004	PFKFLAG	0000	PFKRET	0000 40	PFKTBLSZ	0004 18
PFKCOUNT	0000 18	PFKIMM	0000 80				

PFTABS: PROGRAM FUNCTION KEY TAB DATA

PFTABS contains information about PF key tab stop values. The PFDVAL field in PFDATA is the beginning address of PFTABS. PFKTABS is found in PFKTABLE copy.



Disp	Name	Len	Key	Description
0	PFTAB	1	T*1	TAB STOP VALUE

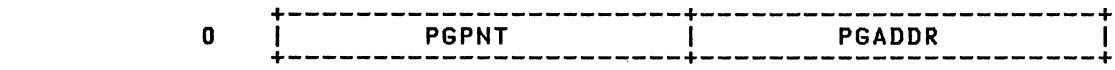
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PFTAB 0000 ..

PGBLOK: PSEUDO PAGE FAULT STACK BLOCK

PGBLOK is used by Handshaking. The block is created and stacked when a multiprogramming or multitasking VS1 program interruption occurs because a referenced page is not available in storage. The VMPGPNT field in the VMBLOK points to PGBLOK. PGBLOK is found in PGBLOK copy.



SIZE

PGBLOK SIZE IN DOUBLEWORDS (PGBSIZE) 1

Disp	Name	Len	Key	Description
0	PGPNT	4		ADDRESS OF NEXT PGBLOK ON STACK
4	PGADDR	4		VIRTUAL PAGE FAULT ADDRESS

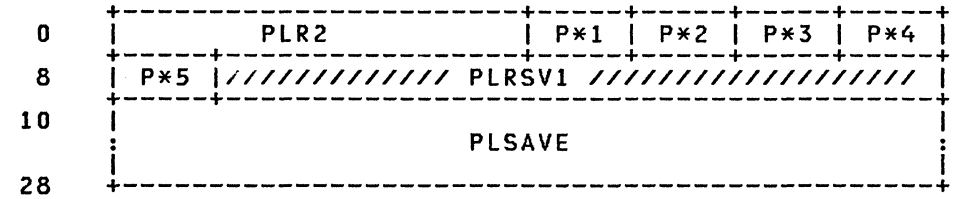
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PGADDR 0004 .. PGBSIZE .... 1 PGPNT 0000 ..

PLIST: PARAMETER LIST FORMAT

PLIST is used when calling DMKQCN and DMKQCO. PLIST is found in IOBLOKS copy.



SIZE

SIZE OF PLIST IN DOUBLEWORDS (PLSIZE) 5

Disp	Name	Len	Key	Description
0	PLR2	4		SAVE AREA FOR R2
4	PLSVR2	4		READ/WRITE PARAMETERS
4	PLSVR20	1	P*1	BYTE 0 OF READ/WRITE PARAMETERS
	Values defined in PLSVR20			
40	PLDIAG			FLAG AND LINE NUMBER FOR DIAGNOSE X'58'
5	PLSVR21	1	P*2	CCW OP CODE FOR FULL SCREEN REQUESTS
6	PLSVR22	1	P*3	BYTE 2 OF READ/WRITE PARAMETERS
	Values defined in PLSVR22			
80	PLHILITE			HIGHLIGHTED DATA STREAM
40	PLNORESP			MESSAGE NOT A COMMAND RESPONSE
20	PLSECUSR			WRITE IS FOR A DISCONNECTED USER
10	PLVIRDVD			REGISTER 4 HAS THE DEVICE CUU
08	PLERRMSG			CONTROL PROGRAM ERROR MESSAGE
04	PLNORET			RETURN WITHOUT WAITING FOR DISPLAY
02	PLDFRET			FRET BUFFER AFTER QUEUEING
01	PLOPERTR			MESSAGE FOR SYSTEM OPERATOR
7	PLSVR23	1	P*4	BYTE 3 OF READ/WRITE PARAMETERS
	Values defined in PLSVR23			
80	PLLOGDRP			LOGOFF AND DROP LINE AFTER MESSAGE
40	PLLOGHLD			LOGOFF AND HOLD LINE AFTER MESSAGE
20	PLPRIOR			PRIORITY MESSAGE
10	PLVMGNIO			I/O REQUEST GENERATED BY VIRTUAL MACHINE
08	PLINHIBT			PREVENT DISPLAY OF THIS DATA
04	PLNOAUTO			FOR QCN - SUPPRESS AUTO CARRAGE RETURN
04	PLEDIT			FOR QCO - EDIT INPUT DATA FOR CORRECTIONS
02	PLALARM			FOR QCN - SOUND THE AUDIBLE ALARM
02	PLUCASE			FOR QCO - TRANSLATE DATA TO UPPER CASE
01	PLNOTIME			FOR QCN - SUPPRESS TIME STAMP ON MESSAGE
01	PLWRTRD			FOR QCO - WRITE CHAINED TO A READ

```
   8    PLFLAG1     1 P*5  FLAG BYTE

    Values defined in PLFLAG1

    80 PLIMSG              INFORMATIONAL MESSAGE
    40 PLNCB               NONCONTIGUOUS BUFFER
    20 PLLED               LIMITED EDIT WRITE
    01 PLFRET              PARAMETER LIST SHOULD BE FRETTED

   9    PLRSV1      7      RESERVED FOR IBM USE

  10    PLSAVE     24      SAVEAREA
```

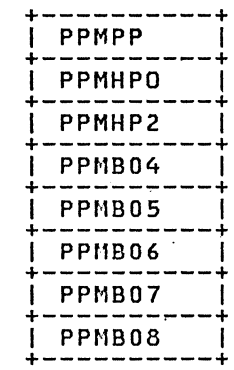
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PLALARM	0007	02	PLINHIBT	0007	08	PLNOTIME	0007	01	PLSVR20	0004	..
PLDFRET	0006	02	PLLED	0008	20	PLOPERTR	0006	01	PLSVR21	0005	..
PLDIAG	0004	40	PLLOGDRP	0007	80	PLPRIOR	0007	20	PLSVR22	0006	..
PLEDIT	0007	04	PLLOGHLD	0007	40	PLR2	0000	..	PLSVR23	0007	..
PLERRMSG	0006	08	PLNCB	0008	40	PLSAVE	0010	..	PLUCASE	0007	02
PLFLAG1	0008	..	PLNOAUTO	0007	04	PLSECUSR	0006	20	PLVIRDVD	0006	10
PLFRET	0008	01	PLNORESP	0006	40	PLSIZE	....	5	PLVMGNIO	0007	10
PLHILITE	0006	80	PLNORET	0006	04	PLSVR2	0004	..	PLWRTRD	0007	01
PLIMSG	0008	80									

PPMAP: PROGRAM PRODUCT BIT MAP

PPMAP indicates what release the system is running on. The PPMAP field in DMHHVD points to PPMAP. PPMAP is found in PPMAP copy.



Disp	Name	Len	Key	Description
0	PPMPP	1		BYTE 1 OF DMKCPEPP

Values defined in PPMPP

80	PPMBSEPP	BSEPP 1.2 INDICATED
40	PPMSEPP	SEPP INDICATED
20	PPMVMSP1	VM/SP RELEASE 1 IS RUNNING
10	PPMVMSP2	VM/SP RELEASE 2 IS RUNNING
08	PPMVMSP3	VM/SP RELEASE 3 IS RUNNING
04	PPMVMSP4	VM/SP RELEASE 4 IS RUNNING
02	PPMVMSP5	VM/SP RELEASE 5 IS RUNNING

1	PPMHPO	1		BYTE 2 OF DMKCPEPP

Values defined in PPMHPO

80	PPMHPO1	HPO RELEASE 1 IS RUNNING
40	PPMHPO2	HPO RELEASE 2 IS RUNNING
20	PPMHPO25	HPO RELEASE 2.5 IS RUNNING
10	PPMHPO3	HPO RELEASE 3 IS RUNNING
08	PPMHPO32	HPO RELEASE 3.2 IS RUNNING
04	PPMHPO34	HPO RELEASE 3.4 IS RUNNING
02	PPMHPO36	HPO RELEASE 3.6 IS RUNNING
01	PPMM21	3880-21 SUPPORT IS PRESENT

2	PPMHP2	1		BYTE 3 OF DMKCPEPP

Values defined in PPMHP2

80	PPMVDLE	VDLE SUPPORT IS PRESENT
40	PPMHPO4	HPO RELEASE 4.0 IS RUNNING
20	PPMHPO42	HPO RELEASE 4.2 IS RUNNING
10	PPMSCH	HPO SCHEDULER MONITOR CHANGES
08	PPMHPO5	HPO RELEASE 5.0 IS RUNNING

3	PPMB04	1		BYTE 4 RESERVED FOR IBM USE

4	PPMB05	1	BYTE 5 RESERVED FOR IBM USE
5	PPMB06	1	BYTE 6 RESERVED FOR IBM USE
6	PPMB07	1	BYTE 7 RESERVED FOR IBM USE
7	PPMB08	1	BYTE 8 RESERVED FOR IBM USE

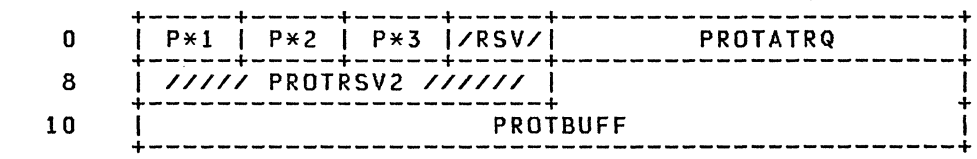
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

PPMBSEPP	0000	80	PPMHPO1	0001	80	PPMHPO4	0002	40	PPMSEPP	0000	40
PPMB04	0003	..	PPMHPO2	0001	40	PPMHPO42	0002	20	PPMVDLE	0002	80
PPMB05	0004	..	PPMHPO25	0001	20	PPMHPO5	0002	08	PPMVMSP1	0000	20
PPMB06	0005	..	PPMHPO3	0001	10	PPMHP2	0002	..	PPMVMSP2	0000	10
PPMB07	0006	..	PPMHPO32	0001	08	PPMM21	0001	01	PPMVMSP3	0000	08
PPMB08	0007	..	PPMHPO34	0001	04	PPMPP	0000	..	PPMVMSP4	0000	04
PPMHPO	0001	..	PPMHPO36	0001	02	PPMSCH	0002	10	PPMVMSP5	0000	02

PROTBLOK: PROTECTED USER CONTROL BLOCK

PROTBLOK contains the necessary information to support a user of the CONCEAL option of the SET command or on the OPTION directory control statement. The VMPROT field of VMBLOK points to PROTBLOK. PROTBLOK is found in PROTBLOK copy.



SIZE

PROTBLOK SIZE IN DOUBLEWORDS (PROTSIZE) 3

Disp	Name	Len	Key	Description
0	PROTERR	1	P*1	RE-IPL ERROR INDICATOR
	Values defined in PROTERR			
	06 PROTTRAN			TRANSLATION EXCEPTION
	05 PROTPALT			SHARED PAGE ALTERED
	04 PROTPRGL			PROGRAM INTERRUPT LOOP
	03 PROTPAGE			PAGING ERROR
	02 PROTEXTL			EXTERNAL INTERRUPT LOOP
	01 PROTDPSW			DISABLED WAIT PSW
1	PROTRCNT	1	P*2	RE-IPL COUNT
2	PROTFLAG	1	P*3	FLAGS
	Values defined in PROTFLAG			
	02 PROTBEG			BEGIN ATTEMPTED
	01 PROTREI			RE-IPL ATTEMPTED
3	RSV	1		RESERVED FOR IBM USE
4	PROTATRQ	4		ADDRESS OF TIMER REQUEST BLOCK
8	PROTRSV2	4		RESERVED FOR IBM USE
C	PROTBUFF	12		ERROR INFORMATION BUFFER
C	PROTPSW	8		PSW PLACE HOLDER
C	PROTSYSN	8		SHARED SYSTEM NAME PLACE HOLDER
14	PROTPGAD	4		BINARY PAGE ADDRESS PLACE HOLDER

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

PROTATRQ	0004	..	PROTEXTL	0000	02	PROTPRGL	0000	04	PROTRSV2	0008	
PROTBEG	0002	02	PROTFLAG	0002	..	PROTPSW	000C	..	PROTSIZE	....	3
PROTBUFF	000C	..	PROTPAGE	0000	03	PROTRCNT	0001	..	PROTSYSN	000C	..
PROTDPSW	0000	01	PROTPALT	0000	05	PROTREI	0002	01	PROTTRAN	0000	06
PROTERR	0000	..	PROTPGAD	0014	..	PROTREIL	....	A	RSV	0003	

PSA: PREFIX STORAGE AREA (LOW STORAGE LOCATIONS)

PSA is the primary control block. It controls CP and virtual machine activity. PSA contains the normal low core IPL, logout, and PSW information, the processor model, type, and features, and BALR and FREE areas. PSA also contains monitor and trace data and the needed linkages to virtual machines, real devices, and spool files. PSA is found in PSA macro.

Note: All fields reside in real PSA unless otherwise specified. Fields residing in absolute PSA are specifically identified. For uniprocessor operation, real PSA equals absolute PSA (or page 0). If the system was running in AP mode when a catastrophic error occurred, the attached processor will no longer be running. System recovery is in uniprocessor mode and the real PSA will no longer be zero.

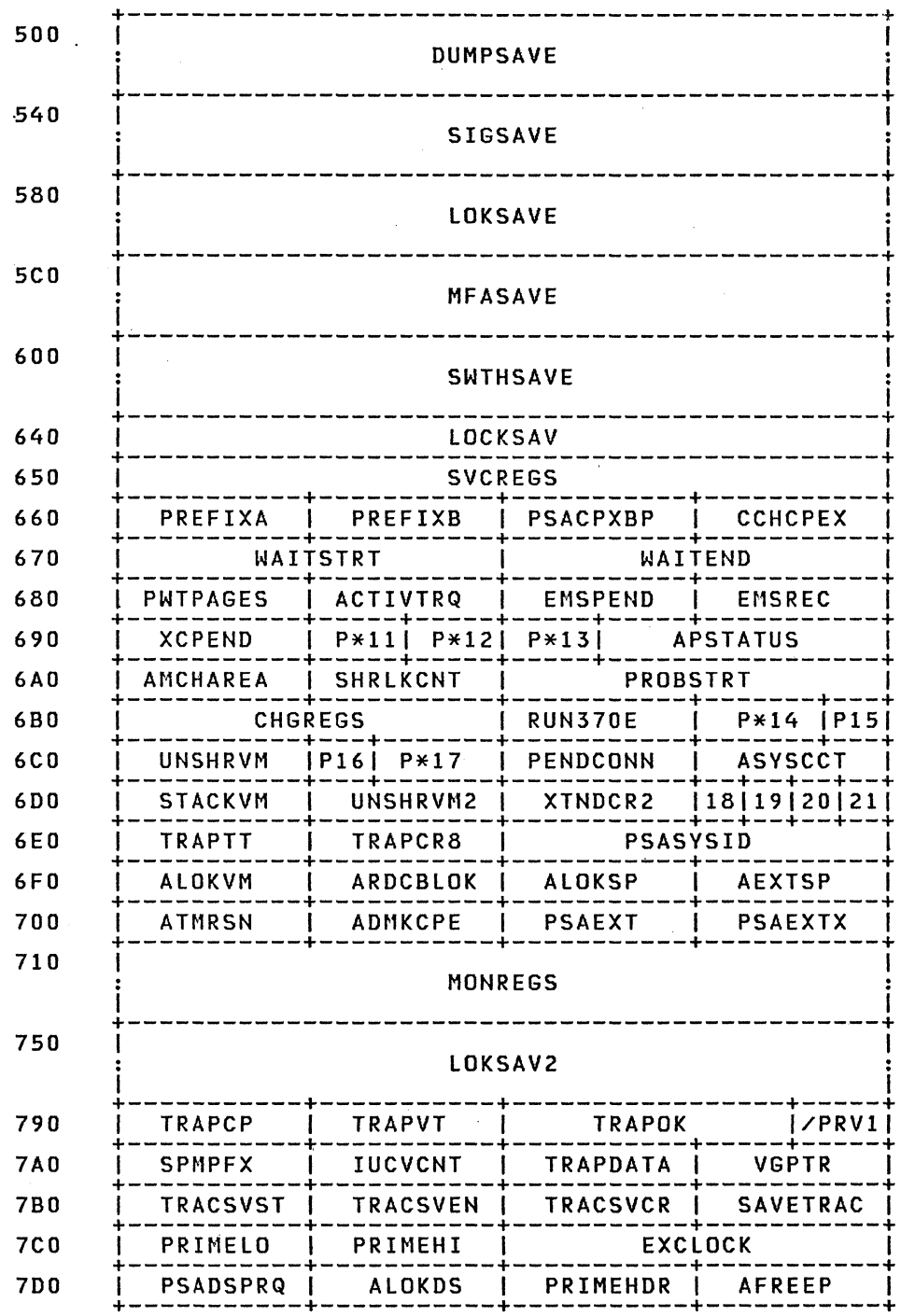
PSA - PREFIX STORAGE AREA - MACHINE USAGE

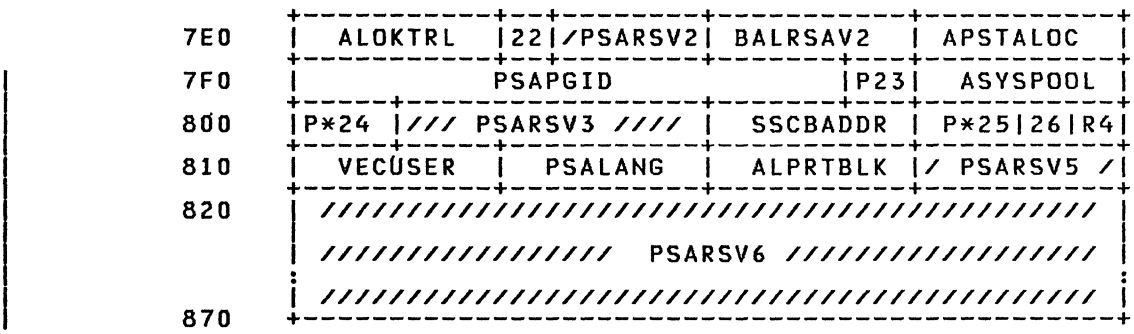
0	IPLPSW		IPLCCW1	
10	IPLCCW2		EXOPSW	
20	SVCOPSW		PROPSW	
30	MCOPSW		IOOPSW	
40	CSW		CAW	QUANTUMR
50	TIMER	QUANTUM	EXNPSW	
60	SVCNPSW		PRNPSW	
70	MCNPSW		IONPSW	
80	CPULOG			
100	FXDLOG			
160	FPRLOG			
180	GPRLOG			
1C0	CRLOG			

PSA - PREFIX STORAGE AREA - VM/370 USAGE

200	TEMPSAVE

240	BALRSAVE				
280	FREESAVE				
2C0	FREEWORK				
2F0	DATE		TODATE		
300	STARTIME		CPUID		
310	IDLEWAIT		PAGEWAIT		
320	IONTWAIT		PROBTIME		
330	RUNPSW		RUNUSER	DSPLPSW	
340	RUNCR0	RUNCR1	CPSTAT	CPRESTRT	
350	PGREAD	PGWRITE	PGWAITIM		
360	PGWAITPG		PSASVCCT	P*1	P*2
370	CPID	CPABEND	P*3 P*4	ASYSVM	
380	ARSPPR	ARSPPU	ARSPRD	ARIOPU	
390	ARIOPR	ARIORD	P*5 P6 P7	ARSPAC	
3A0	AVMREAL	ASYSABND	ASYSLC	ASYSOP	
3B0	ARIOCT	ARIOCH	ARIOCU	ARIODV	
3C0	ARIOCC	ARIOUC	ARIODC	ACORETBL	
3D0	APAGCP	CPCREG0	CPCREG6	CPCREG8	
3E0	TIMEDISP	ASVCLIST	AVMALIST	LASTUSER	
3F0	PAGECUR	PAGENXT	MONNEXT	PAGEND	
400	TRACEFLG	TTSEGCNT	P*8 P9 10	VSMPTR	
410	ALOKFR	ALOKSY	ALOKRM	ASCHN	
420	VRSVUID		ASFBACO	ARSPTA	
430	INSTWRD1	INSTWRD2	INSTWRD3	INSTWRD4	
440	CONSTANTS POOL				
4D0	APTRLK	NOADD	X40FFS	XRIGHT24	
4E0	XPAGNUM	XRIGHT16	AFREE	AFRET	
4F0	AQCNWT	ADSPCH	APTRAN	X2048BND	





ALL FIELDS RESIDE IN REAL PSA UNLESS OTHERWISE SPECIFIED.
FIELDS RESIDING IN ABSOLUTE PSA ARE SPECIFICALLY IDENTIFIED.
FOR UNIPROCESSOR OPERATION REAL PSA = ABSOLUTE PSA.

Disp	Name	Len	Key	Description
000	IPLPSW	008		IPL START PSW
000	RSRTNPSW	008		RESTART NEW PSW
008	IPLCCW1	008		IPL CCW
008	RSRTOPSW	008		RESTART OLD PSW
008	PSAR1	004		RESERVED FOR IBM USE
00C	TRACSTRT	004		ADDRESS OF START OF TRACE TABLE TRACSTRT IS IN ABSOLUTE PSA
010	IPLCCW2	008		IPL CCW
010	TRACEND	004		ADDRESS OF END OF TRACE TABLE TRACEND IS IN ABSOLUTE PSA
014	TRACCURR	004		ADDRESS OF NEXT AVAILABLE TRACE TABLE ENTRY TRACCUR IS IN ABSOLUTE PSA
018	EXOPSW	008		EXTERNAL OLD PSW
020	SVCOPSW	008		SVC OLD PSW
028	PROPSW	008		PROGRAM OLD PSW
030	MCOPSW	008		MACHINE-CHECK OLD PSW
038	IOOPSW	008		I/O OLD PSW
040	CSW	008		CHANNEL STATUS WORD
048	CAW	004		CHANNEL ADDRESS WORD
04C	QUANTUMR	004		INTERVAL TIMER VALUE AT LAST INTERRUPT

050	TIMER	004	13 MICROSECOND INTERVAL TIMER
054	QUANTUM	004	INTERVAL TIMER VALUE AT LAST DISPATCH
058	EXNPSW	008	EXTERNAL NEW PSW
060	SVCNPSW	008	SVC NEW PSW
068	PRNPSW	008	PROGRAM NEW PSW
070	MCNPSW	008	MACHINE-CHECK NEW PSW
078	IONPSW	008	I/O NEW PSW
080	CPULOG	128	PROCESSOR AND STORAGE LOGOUT AREA
080	INMSFBLK	004	MSSF DATA BLOCK ADDRESS
084	INTEXF	004	EXTERNAL INTERRUPT CODE (FULLWORD)
086	INTEX	002	EXTERNAL INTERRUPT CODE (HALFWORD)
088	INTSVCL	002	SVC INSTRUCTION LENGTH (ILC) CODE
08A	INTSVC	002	SVC INTERRUPT CODE
08C	INTPRL	002	PROGRAM INSTRUCTION LENGTH (ILC) CODE
08E	INTPR	002	PROGRAM INTERRUPT CODE
090	TREXADD	004	TRANSLATION EXCEPTION ADDRESS
094	MONCLASS	002	MONITOR CLASS
096	PERCODE	002	PROGRAM EVENT RECORDER (PER) CODE
098	PERADD	004	PER ADDRESS
09C	MONCODE	004	MONITOR CODE
0A0	PSAR2	008	RESERVED FOR IBM USE
0A8	CHANID	004	CHANNEL ID
0AC	IOELPNTR	004	I/O EXTENDED LOGOUT (IOEL) POINTER
0B0	ECSWLOG	004	LIMITED CHANNEL LOGOUT (ECSW)
0B3	ECSWBYT3	001	THIRD BYTE OF LCL -- I/O INTERFACE HANGUP IS INDICATED IN BIT 27
0B4	PSAR3	004	RESERVED FOR IBM USE
0B8	INTKFLIN	004	I/O INTERRUPT KEY, FLAGS, INTERFACE ADDRESS
0BA	INTTIO	002	I/O INTERRUPT DEVICE ADDRESS (HALFWORD)
0BC	PSAR4	028	RESERVED FOR IBM USE
0D8	CPUTIMR	008	PROECSSOR TIMER
0E0	CLOCKCMP	008	CLOCK COMPARATOR
0E8	INTMC	008	MACHINE-CHECK INTERRUPT CODE

0F0	INTRC	001	EXTERNAL DAMAGE REASON CODE
0F1	PSAR5	003	RESERVED FOR IBM USE
0F4	FAILSTAD	004	FAILING STORAGE ADDRESS
0F8	REGNCODE	004	REGION CODE
0FC	CURNTPSW	008	CURRENT PSW
014	PREFIXVL	004	PREFIX VALUE
018	MODFEATR	004	MODEL DEPENDENT FEATURES
100	FXDLOG	096	FIXED LOGOUT AREA
160	FPRLOG	032	FLOATING POINT REGISTER LOGOUT AREA
180	GRLOG	064	GENERAL REGISTER LOGOUT AREA
1C0	CRLOG	064	CONTROL REGISTER LOGOUT AREA
200	CPUSAGE	000	END OF MACHINE USAGE, START OF CP USAGE
200	TEMPSAVE	064	TEMPORARY SAVE AREA
200	TEMPR0	004	
204	TEMPR1	004	
208	TEMPR2	004	
20C	TEMPR3	004	
210	TEMPR4	004	
214	TEMPR5	004	
218	TEMPR6	004	
21C	TEMPR7	004	
220	TEMPR8	004	
224	TEMPR9	004	
228	TEMPR10	004	
22C	TEMPR11	004	
230	TEMPR12	004	
234	TEMPR13	004	
238	TEMPR14	004	
23C	TEMPR15	004	
240	BALRSAVE	064	BALR LINKAGE SAVE AREA
240	BALR0	004	
244	BALR1	004	
248	BALR2	004	

24C	BALR3	004	
250	BALR4	004	
254	BALR5	004	
258	BALR6	004	
25C	BALR7	004	
260	BALR8	004	
264	BALR9	004	
268	BALR10	004	
26C	BALR11	004	
270	BALR12	004	
274	BALR13	004	
278	BALR14	004	
27C	BALR15	004	
280	FREESAVE	064	DMKFRE SAVE AREA
280	FREER0	004	
284	FREER1	004	
288	FREER2	004	
28C	FREER3	004	
290	FREER4	004	
294	FREER5	004	
298	FREER6	004	
29C	FREER7	004	
2A0	FREER8	004	
2A4	FREER9	004	
2A8	FREER10	004	
2AC	FREER11	004	
2B0	FREER12	004	
2B4	FREER13	004	
2B8	FREER14	004	
2BC	FREER15	004	
2C0	FREEWORK	048	DMKFRE WORK AREA
2F0	DATE	008	DATE - MM/DD/YY - EDITED EBCDIC
2F8	TODATE	008	TOD CLOCK AT 00.00.00 TODAY - LOCAL TIME

300	STARTIME	008	DATE AND TIME STARTED - TOD CLOCK VALUE
308	CPUID	008	CPU IDENTIFICATION FIELD
308	CPUVERSN	001	VERSION CODE
309	CPUSER	003	CPU SERIAL NUMBER, PACK UNSIGN
30C	CPUMODEL	002	CPU MODEL NUMBER
30E	CPUMCELL	002	MAXIMUM LENGTH IN BYTES OF MCEL
310	IDLEWAIT	008	TOTAL SYSTEM IDLE WAIT TIME
318	PAGEWAIT	008	TOTAL SYSTEM PAGE WAIT TIME
320	IONTWAIT	008	TOTAL SYSTEM I/O WAIT TIME
328	PROBTIME	008	TOTAL SYSTEM PROBLEM STATE TIME
330	RUNPSW	008	PSW LAST LOADED BY DISPATCH
338	RUNUSER	004	ADDRESS OF DISPATCHED VMBLOK
33C	DSPLPSW	004	LOAD PSW INSTRUCTION USED TO DISPATCH
340	RUNCR0	004	CONTROL REGISTER ZERO AT DISPATCH
344	RUNCR1	004	CONTROL REGISTER ONE AT DISPATCH
348	CPSTAT	004	CP370 RUNNING STATUS
348	CPSTATUS	001	CP RUNNING STATUS

Values defined in CPSTATUS

80	CPWAIT	CP IN WAIT STATE
40	CPRUN	CP RUNNING USER IN RUNUSER
20	CPEX	CP EXECUTING STACKED REQUEST
10	CPFVRUN	RESERVED FOR IBM USE
08	CPSUPER	PROCESSOR EXECUTING IN SUPERVISOR STATE

349	XTNDLOCK	001	FREE STORAGE EXTENDING IF=X'FF'. XTNDLOCK IS IN ABSOLUTE PSA
34A	CPSTAT2	001	FLAG BYTE

Values defined in CPSTAT2

80	CPMICAVL	VM ASSIST AVAILABLE ON CPU
40	CPMICON	VM ASSIST IS ON FOR SYSTEM
20	CPSHRLK	CP PROCESSING SHARED NAMED SYSTEM PAGE
10	CPSPMODE	CP IS IN SINGLE PROCESSOR MODE
08	CPASTAVL	CP ASSIST AVAILABLE ON CPU
04	CPASTON	CP ASSIST IS ON FOR SYSTEM
02	CP370EAV	370E ASSIST IS AVAILABLE ON CPU
01	CP370EON	370E ASSIST IS ON FOR THE CPU

34B	CPSTAT3	001	WAIT TIME ACCOUNTING FLAG BYTE

Values defined in CPSTAT3

80	CPTIDLE			TIMER CONTAINS IDLE TIME
40	CPTPAGE			TIMER CONTAINS PAGE WAIT TIME
20	CPTIONT			TIMER CONTAINS I/O WAIT TIME
10	CPRSTPND			HANDLE PENDING RESTART (SPMODE)
08	CPDASAAV			DASFA IS AVAILABLE ON PROCESSOR
04	CPDASAON			DASFA IS ON FOR THIS PROCESSOR
02	CPSTPTAV			STPT ASSIST AVAILABLE ON THIS PROCESSOR
34C	CPRESTRT	004		RESTART ADDRESS IF EXT MARKS PAGE INVALID
350	PGREAD	004		TOTAL NUMBER OF PAGE READS
354	PGWRITE	004		TOTAL NUMBER OF PAGE WRITES
358	PGWAITIM	008		TIME SPENT IN PAGE WAIT (TOD UNITS)
360	PGWAITPG	008		TIME SPENT IN PAGE WAIT X PAGES WAITING
368	PSASVCCT	004		TOTAL NUMBER OF USER SVC'S
36C	PAGELOAD	002	P*1	PAGE WAIT PERCENT, LAST MEASUREMENT
36E	PAGERATE	002	P*2	PAGING RATE, PAGES/SECOND. PAGERATE IS IN ABSOLUTE PSA
370	PSENDCLR	000		END OF AREA CLEARED BY DMKCPINT
370	CPID	004		CP RUNNING IDENTIFIER. CPID IS CHANGED IN ABSOLUTE PSA
374	CPABEND	004		CP ABEND CODE
378	PSTARTSV	000		START OF SAVE/RESTORED CODE
378	SYSIPLDV	002	P*3	DEVICE ADDRESS OF SYSTEM IPL DEVICE
37A	PGSRATIO	002	P*4	PAGE STEALS/TOTAL REPLENISHED
37C	ASYSVM	004		ADDRESS OF SYSTEM VMBLOK
380	ARSPPR	004		ADDRESS OF SYSTEM PRINTER FILE CHAIN
384	ARSPPU	004		ADDRESS OF SYSTEM PUNCH FILE CHAIN
388	ARSPRD	004		ADDRESS OF SYSTEM READER FILE CHAIN
38C	ARIOPU	004		ADDRESS OF SYSTEM PUNCH TABLE
390	ARIOPR	004		ADDRESS OF SYSTEM PRINTER TABLE
394	ARIORD	004		ADDRESS OF SYSTEM READER TABLE
398	IPUADDR	002	P*5	INSTRUCTION PROCESSING ADDRESS
39A	PSAMSS	001	P*6	FLAGS USED DURING MSS PROCESSING
Values defined in PSAMSS				
80	MSSPRES			AN MSS IS PRESENT AT INITIALIZATION
39B	CPAPRINP	001	P*7	ALTERNATE PROCESSOR RECOVERY IN. CPAPRINP IS IN ABSOLUTE PSA
39C	ARSPAC	004		ADDRESS OF SYSTEM ACCOUNTING CHAIN

3A0	AVMREAL	004	VMBLOK ADDRESS OF VIRTUAL = REAL USER. AVMREAL IS MAINTAINED IN BOTH PSA'S AND ABSOLUTE PSA
3A4	ASYSABND	004	ADDRESS OF SYSTEM ABEND PRINTER
3A8	ASYSLC	004	ADDRESS OF SYSLOCS INFORMATION
3AC	ASYSOP	004	ADDRESS OF SYSTEM OPERATOR VMBLOK
3B0	ARIOCT	004	ADDRESS OF REAL CHANNEL INDEX TABLE
3B4	ARIOCH	004	ADDRESS OF FIRST RCHBLOK
3B8	ARIOCU	004	ADDRESS OF FIRST RCUBLOK
3BC	ARIODV	004	ADDRESS OF FIRST RDEVBLOK
3C0	ARIOCC	004	ADDRESS OF COUNT OF REAL SYSTEM CHANNELS
3C4	ARIOUC	004	ADDRESS OF COUNT OF REAL SYSTEM CU'S
3C8	ARIODC	004	ADDRESS OF COUNT OF REAL SYSTEM DEVICES
3CC	ACORETBL	004	ADDRESS OF SYSTEM CORE TABLE
3D0	APAGCP	004	ADDRESS OF FIRST PAGEABLE PROGRAM
3D4	CPCREG0	004	CP ARCHITECTURE CONTROL AND EXTERNAL MASK
3D8	CPCREG6	004	CP ASSIST AND VMA MASK
3DC	CPCREG8	004	MONITOR CALL ENABLE MASK
3E0	TIMEDISP	004	TIMER DISPLACEMENT FOR CHARGE
3E4	ASVCLIST	004	ADDRESS OF V=R END FOR CP ASSIST 22
3E8	AVMALIST	004	ADDRESS OF EXPANDED VMA POINTER LIST
3EC	LASTUSER	004	LAST USER TO BE DISPATCHED
3F0	PAGECUR	004	CURRENT MONITOR BUFFER PAGE ADDRESS. PAGECUR IS IN ABSOLUTE PSA
3F4	PAGENXT	004	ALTERNATE MONITOR BUFFER PAGE ADDRESS. PAGENXT IS IN ABSOLUTE PSA
3F8	MONNEXT	004	NEXT AVAILABLE ADDRESS IN MONITOR BUFFER. MONNEXT IS IN ABSOLUTE PSA
3FC	PAGEND	004	LAST ADDRESS IN CURRENT MON BUFFER PAGE. PAGEND IS IN ABSOLUTE PSA
400	TRACEFLG	004	TRACE TABLE FLAGS
400	TRACFLG1	001	TRACE TABLE FLAG

Values defined in TRACFLG1

80	TRAC01	EXTERNAL INTERRUPT TRACING ON
40	TRAC02	SVC INTERRUPT TRACING ON
20	TRAC03	PROGRAM INTERRUPT TRACING ON
10	TRAC04	MACHINE CHECK TRACING ON
08	TRAC05	I/O INTERRUPT TRACING ON

```
    04 TRAC67              FREE/FRET CALL TRACING ON
    02 TRAC08              ENTER DISPATCH TRACING ON
    01 TRAC09              QUEUE DROP TRACING ON

401    TRACFLG2 001        TRACE TABLE FLAG

    Values defined in TRACFLG2

    80 TRAC0A              RUN USER TRACING ON
    40 TRAC0C              UNSTACK I/O INT. TRACING ON
    20 TRAC0D              VIRTUAL CSW STORED TRACING ON
    10 TRACBEF             SIO, TIO, HDV TRACING ON
    08 TRAC10              UNSTACK IOBLOK OR TRQBLOK TRACING ON
    04 TRAC11              TRACE BTU ACTIVITY FOR 370X NCP
    02 TRAC12              LOCK SPIN TRACING ACTIVE
    01 TRAC13              SIGNAL PROCESSOR TRACING ACTIVE

402    TRACFLG3 001        TRACE TABLE FLAG

    Values defined in TRACFLG3

    80 TRACIUCV            IUCV TRACING ON
    40 TRAVCSET            ERROR TRACING FOR CCS
    20 TRAC17              MSSF CALL TRACING
    10 TRAFPFLG            DISPATCHER FASTPATH TRACING ON

403    TRACFLG4 001        RESERVED FOR IBM USE

404    TTSEGCNT 004        COUNT OF TOTAL PAGE/SWAP TABLES.
                           TTSEGCNT IS IN ABSOLUTE PSA

408    CSADDR   002 P*8    CHANNEL SET ADDRESS

40A    PMASTAT  001 P*9    PREFERRED MACHINE STATUS

    Values defined in PMASTAT

    80 PMAAVAIL            PMA HARDWARE AVAILABLE
    40 PMAMODE             PMA-MODE GUEST PRESENT  (IPL'D)
    20 PMAGUEST            PMA-GUEST IS RUNUSER
    10 VPMAAVAI            CONTROL SWITCH ASSIST AVAILABLE

40B    PSAEVMA  001 P*10   ECPS:VM ENABLE/DISABLE BITS
                           IS IN ABSOLUTE PSA

40C    VSMPTR   004        POINTER TO VSMBLOK

410    ALOKFR   004        AP-FREE LOCKWORD ADDRESS

414    ALOKSY   004        AP-SYSTEM LOCKWORD ADDRESS

418    ALOKRM   004        AP-REAL STORE MANAGEMENT LOCKWORD ADDRESS

41C    ASCHN    004        CHAIN OF USERS ENABLED FOR VMSAVE.
                           ASCHN IS MAINTAINED IN ABSOLUTE PSA

420    VRSVUID  008        USERID OF V=R USER BEFORE ABEND

428    ASFBACO  004        ADDRESS OF ACCOUNT INFORMATION BLOCK.
                           ASFBACO IS IN ABSOLUTE PSA

42C    ARSPTA   004        ADDRESS OF DMKSPT SPOOL FILE CHAIN

430    INSTWRD1 004        RESERVED FOR INSTALLATION USE

434    INSTWRD2 004        RESERVED FOR INSTALLATION USE
```

```
438    INSTWRD3 004       RESERVED FOR INSTALLATION USE
43C    INSTWRD4 004       RESERVED FOR INSTALLATION USE
POOL OF FREQUENTLY USED CONSTANTS
440    ZEROES   048
470    BLANKS   008
478    FFS      008       ALSO = -1
   Values defined in FFS
   40 F0
480    F1       004
484    F2       004
488    F3       004
48C    F4       004
490    F5       004
494    F6       004
498    F7       004
49C    F8       004
   Values defined in F8
   9C SPXCR6
4A0    F9       004
4A4    F10      004
4A8    F15      004       ALSO = X'0000000F'
4AC    F16      004
4B0    F20      004
4B4    F24      004
4B8    F60      004       ALSO = X'0000003C'
4BC    F240     004       ALSO = X'000000F0' = C'0'
4C0    F255     004       ALSO = X'000000FF'
4C4    F256     004       ALSO = X'00000100'
4C8    F4095    004       ALSO = X'00000FFF'
4CC    F4096    004       ALSO = X'00001000'
4D0    APTRLK   004       ENTRY TO LOCK A PAGE IN STORAGE
4D4    NOADD    004
4D8    X40FFS   004
```

4DC	XRIGHT24	004	
4E0	XPAGNUM	004	
4E4	XRIGHT16	004	
4E8	AFREE	004	ENTRY TO ALLOCATE FREE STORAGE
4EC	AFRET	004	ENTRY TO RELEASE FREE STORAGE
4F0	AQCNWT	004	ENTRY TO WRITE A TERMINAL MESSAGE
4F4	ADSPCH	004	ENTRY TO THE VM/370 DISPATCHER
4F8	APTRAN	004	ENTRY TO THE PAGING SUPERVISOR
4FC	X2048BND	004	
500	PSBCLR2	000	START OF SECOND AREA CLEARED BY CPI
500	DUMPSAVE	064	SAVE AREA FOR DUMP ROUTINE
540	SIGSAVE	064	SAVE AREA FOR DMKEXT
580	LOKSAVE	064	DMKLOK SAVE AREA
5C0	MFASAVE	064	SAVE AREA FOR MALFUNCTION ALERT
600	SWTHSAVE	064	DMKVMASW SAVE AREA
640	LOCKSAV	016	LOCK MACRO SAVE AREA
650	SVCREGS	016	SVC SAVE AREA
660	PREFIXA	004	PREFIX VALUE OF THIS PROCESSOR
664	PREFIXB	004	PREFIX VALUE OF OTHER PROCESSOR
668	PSACPXBP	004	ADDRESS OF FIRST CPEXBLOK FOR SVC 24
66C	CCHCPEX	004	CHANNEL CHECK HANDLER CPEX ADDRESS
670	WAITSTRT	008	TIMER VALUE AT START OF WAIT
678	WAITEND	008	TIMER VALUE AT END OF WAIT
680	PWTPAGES	004	PGS IN PGWAIT AT START OF WAIT
684	ACTIVTRQ	004	ADDRESS OF ACTIVE TRQ
688	EMSPEND	004	EMERGENCY SIGNAL PENDING FLAGS

Values defined in EMSPEND

80	EMSPQUI	QUIESCE PENDING
40	EMSPEXT	EXTEND PENDING
20	EMSPSYNC	SYNC PENDING
10	EMSPSHD	SHUTDOWN PENDING
08	EMSPCLKC	HI-ORDER TOD SYNC PENDING
04	EMSPXEX	EXTEND EXIT PENDING
01	EMSINQSC	PROCESSOR IS QUIESCED

```
68C   EMSREC   004       EMERGENCY SIGNAL RECEIVED FLAGS

   Values defined in EMSREC

   80 EMSRQUI             QUIESCE REQUEST RECEIVED
   40 EMSREXT             EXTEND REQUEST RECEIVED
   20 EMSRSYNC            SYNC REQUEST RECEIVED
   10 EMSRSHD             SHUTDOWN REQUEST RECEIVED
   08 EMSRCLKC            HIGH-ORDER TOD SYNC RECEIVED
   04 EMSRXEX             EXTEND EXIT RECEIVED

690   XCPEND   004       EXTERNAL CALL PENDING FLAGS

   Values defined in XCPEND

   80 XCAPR               AUTOMATIC PROCESSOR RECOVERY PENDING
   40 XCRES               RESUME REQUEST PENDING
   20 XCWAK               WAKEUP REQUEST PENDING
   10 XCDISP              DISPATCH REQUEST PENDING

694   IPUADDRX 002 P*11  PROCESSOR ADDRESS OF OTHER PROCESSOR

696   LPUADDR  002 P*12  LOGICAL ADDRESS OF THIS PROCESSOR

698   LPUADDRX 002 P*13  LOGICAL ADDRESS OF OTHER PROCESSOR

69A   APSTATUS 006       AP STATUS BYTES

69A   APSTAT1  001       AP STATUS

   Values defined in APSTAT1

   80 APUOPER             ATTACHED PROCESSOR OPERATIONAL
   40 PROCIO              PROCESSOR HAS IO CAPABILITY
   20 MPGEND              SYSTEM GEN'D FOR MP
   10 MPFEAT              MP FEATURE IS INSTALLED
   08 PROCIPL             PROCESSOR IS THE IPL PROCESSOR
   04 MPUOPER             MP OPERATIONAL.
   02 CSSFEAT             CHANNEL SET SWITCHING FACILITY
   01 CPINITD             SYSTEM INITIALIZATION COMPLETE

69B   APSTAT2  001       SECOND FLAG BYTE

   Values defined in APSTAT2

   10 CPMCHLK             MACHINE CHECK PROCESSING PENDING
   02 CPPTLBR             PTLB REQUIRED FOR PROCESSOR

69C   CPTERMLK 001       DMKMCT SYS TERMINATION IN PROG. CPTERMLK
                         IS IN ABSOLUTE PSA

69D   CPFRELK  001       FREE STORAGE EXTEND PENDING. CPFRELK
                         IS IN ABSOLUTE PSA

69E   FRLKPROC 001       LOGICAL PROCESSOR ID FOR CPFRELK.
                         FRLKPROC IS IN ABSOLUTE PSA

6A0   AMCHAREA 004       ADDRESS OF DMKMCH WORK AREA

6A0   CPFRESW  001       DMKFRE MUST TRANSFER EXECUTION TO AP.
                         CPFRESW IS IN ABSOLUTE PSA

6A4   SHRLKCNT 004       COUNT OF TIMES CPSHRLK IS SET

6A8   PROBSTRT 008       VMTMOUTQ AT DISPATCH
```

6B0	CHGREGS	008		SAVE AREA FOR CHARGE SYNC
6B8	RUN370E	004		370E STBYPASS VR VMBLOK
6BC	BCTWAIT	003	P*14	BCT VALUE TO WAIT FOR 50 MS
6BF	CPSTAT4	001	P*15	HARDWARE SEGMENT PROTECT FLAG

Values defined in CPSTAT4

80	XKEYMODE	SINGLE-KEY STORAGE (CR0, BIT 7 SHOULD HAVE THE SAME SETTING AS XKEYMODE)
40	XKEYASST	VMA CAN HANDLE EXTENDED KEY OPERATIONS ON ALL PROCESSORS
20	CPSHUT	SHUTDOWN INDICATOR
10	CPXSTOR	EXTENDED STORAGE BIT - (>16MB)
08	CPIEXLOG	EXPLICIT LOGON INDICATOR
04	CPQVMCU	PASS CONTROL UNIT END (CUE) TO DMKQVMCU
02	CPSIMLTB	SIMULATING TEST BLOCK INSTRUCTION
01	CPSEGPRT	HARDWARE SEGMENT PROTECT BIT

6C0	UNSHRVM	004		VMBLOK FOR PENDING DMKVMAPS CALL (ATTACHED PROCESSOR ONLY)
6C4	TRACPROC	001	P*16	PROCESSOR ID FOR CP TRACE TABLE ENTRY
6C5	APSTAT	003	P*17	MORE AP STATUS BYTES
6C5	APSTAT3	001		THIRD AP STATUS FLAG BYTE

Values defined in APSTAT3

80	CPSYSLK	OTHER PROCESSOR IS SPINNING ON LOCK

6C6	APSTAT4	001	FOURTH AP STATUS FLAG BYTE

Values defined in APSTAT4

80	CPLOKFL	DMKLOK ENABLED FOR EXTERNAL INTS
40	RECMODE	PROCESSOR WILL RECORD SOFT MACHINE CHECKS
20	CPMCHSE	MACHINE CHECK PROCESSING PENDING
10	PROCSCHK	TOD SYNCH CHECK RECEIVED
08	CPAPRPND	AUTO PROCESSOR RECOVERY PENDING
04	POFFLINE	VARY PROCESSOR FUNCTION IN USE
02	OFFLPROC	THIS PROCESSOR IS BEING VARIED OFFLINE
01	CPCCHLK	CHANNEL CHECK PROCESSING PENDING

6C7	APSTAT5	001	FIFTH AP STATUS FLAG BYTE

Values defined in APSTAT5

80	CPMFAWIA	DMKLOK OR DMKEXT ENABLED FOR MFA

6C8	PENDCONN	004	IUCV PENDING CONNECTION CHAIN
6CC	ASYSCCT	004	ADDRESS OF SYSTEM CCT
6D0	STACKVM	004	R11 FOR DISPATCHER UNSTACK
6D4	UNSHRVM2	004	R2 VALUE FOR PENDING VMAPS CALL (ATTACHED PROCESSOR ONLY)
6D8	XTNDCR2	004	CR2 AT ENTRY TO EXTEND

```
6DC   SNASTATS 001 P*18 SNA CCS STATUS INDICATORS

   Values defined in SNASTATS

   80 SNAENBLE           SNA DEVICES ARE ENABLED

6DD   ACRLOCK  001 P*19 RECOVERY RECURSION LOCK

6DE   DPSTAT   001 P*20 MACHINE STATE SUMMARY

   Values defined in DPSTAT

   80 DPMICON            ON WHEN CPMICON IN CPSTAT2
   40 DPAPUOP            ON WHEN APUOPER IN APSTAT1
   20 DPSEGPRT           ON WHEN CPSEGPTR IN CPSTAT4
   10 DPOKTLB            ON WHEN TLB IS OK

6DF   CPSTAT5  001 P*21 MORE CP STATUS

   Values defined in CPSTAT5

   80 RDIDX              0=3-BIT SHIFT, 1=4-BIT SHIFT,
   40 CPINIT             CP SYSTEM BEING INITIALIZED
   20 RUNCRINV           RUNCR0 & RUNCR1 INVALID FOR FAST REDISPATCH
   10 POWEROFF           POWEROFF/AUTO IPL INDICATOR
   08 G16CHAN            A CHANNEL GREATER THAN 16 GENED

      TRAPTT IS THE ADDRESS OF THE 'TRAP' LOGIC FOR PROCESSING
      CP TRACE TABLE ENTRIES. IT IS FILLED IN BY 'TRAP' WHEN
      IT IS ACTIVATED. THIS ENTRY IS 'X00' WHEN 'TRAP' IS NOT
      ACTIVE, AND DMKDSP CHECKS FOR 'X00' WHEN DETERMINING WHETHER
      TO BRANCH TO 'TRAP' OR NOT.

6E0   TRAPTT   004       GETS TRACE TABLE ENTRY ADDRESS
                          FOR THE TRAP FACILITY

6E4   TRAPCR8  004       FOR THOSE VIRTUAL MACHINES ENABLED FOR
                          'TRAP'...'OR' THIS VALUE MODIFIED BY DMKTRT

6E8   PSASYSID 008       SYSTEM IDENTIFIER

6F0   PSECLR2  000       END OF SECOND AREA CLEARED BY CPI

650   ALOKVM   004       ENTRY TO LOCK VM

6F4   ARDCBLOK 004       POINTER TO FIRST RDCBLOK (FBA)

658   ALOKSP   004       ENTRY TO SPIN ON LOCK

6FC   AEXTSP   004       ENTRY TO SIGNAL PROCESSOR ROUTINE

700   ATMRSN   004       ENTRY TO CHARGE SYNC ROUTINE

704   ADMKCPE  004       ADDRESS OF LAST RESIDENT MODULE

708   PSAEXT   004       ADDRESS OF OUR PSA EXTENSION

708   PSAIOSW           ADDRESS OF IOS WORK AREA

70C   PSAEXTX  004       ADDRESS OF OTHER PSA EXTENSION

710   MONREGS  064       REGISTER SAVE AREA FOR MONITOR CALL

750   LOKSAV2  064       SAVE AREA FOR SWTCHVM IN DMKLOK
```

```
790   TRAPCP   004      GETS CP INTERFACE ENTRY ADDRESS
   Values defined in TRAPCP
   80 TRAPSTRT          'TRAP' FACILITY IS INITIALIZED
794   TRAPVT   004      GETS VIRTUAL INTERFACE ENTRY ADDRESS
798   TRAPOK   006      'TRAP' CP INTERFACE LOGIC
79E   PRV1     002 P*19 RESERVED FOR IBM USE
7A0   SPMPFX   004      VM'S PREFIX REGISTER
7A4   IUCVCNT  004      IUCV MESSAGE COUNTER
7A8   TRAPDATA 004      CPTRAP DATA AREA
7AC   VGPTR    004      LIST OF VGBLOKS FOR VM GROUP
7B0   TRACSVST 004      CP TRACE TABLE START SAVE AREA
7B4   TRACSVEN 004      CP TRACE TABLE END SAVE AREA
7B8   TRACSVCR 004      CP TRACE TABLE CURRENT SAVE AREA
7BC   SAVETRAC 004      ADDRESS OF SVC TRACE TABLE SLOT
7C0   PRIMELO  004      LOWEST ADDRESS OF OUR PRIME BLOCKS
7C4   PRIMEHI  004      HIGHEST ADDRESS OF OUR PRIME BLOCKS
7C8   EXCLOCK  008      TOD CLOCK VALUE USED BY FREE
7D0   PSADSPRQ 004      ADDRESS OF LOCAL DISPATCH REQUEST QUEUE
7D4   ALOKDS   004      ADDRESS OF LOCAL DSPRQ LOCK
7D8   PRIMEHDR 004      HEADER OF OUR PRIME BLOCKS
7DC   AFREEP   004      ADDRESS OF DMKFREEP
7E0   ALOKTRL  004      ADDRESS OF LOCAL TRL LOCK
7E4   LOKREQ   001 P*22 FLAG TO INDICATE SYSLOK REQUIRED
7E6   PSARSV2  003      RESERVED FOR IBM USE
7E8   BALRSAV2 004      SAVE AREA POINTER FOR CONTAINED CALL
7EC   APSTALOC 004      ANCHOR: PAGING STORAGE ALOCBLOKS
7F0   PSAPGID  011      PATH GROUP ID FOR 3480 TAPE
7F0   PGIDADDR 002      PROCESSOR ADDRESS
7F2   PGIDCPU  003      PROCESSOR SERIAL NUMBER
7F5   PGIDMOD  002      PROCESSOR MODEL NUMBER
7F7   PGIDTOD  004      FIRST HALF OF TOD CLOCK
```

```
 7FB   CPSTAT6  001 P*23 MORE CP STATUS BYTES

    Values defined in CPSTAT6

    80 CPTCH             TCH NEEDED FOR 4341-12/4381
    40 IREALVF           REAL VECTOR FACILITY INSTALLED

| 7FC   ASYSPOOL 004      ADDRESS OF SYSPOOL'S VMBLOK

 800   DIRECTCT     P*24 DIRECTORY UPDATE COUNT

 802   PSARSV3  006      RESERVED FOR IBM USE

 808   SSCBADDR 004      ADDRESS OF SSCBLOK

 80C   ERRPATH  002 P*25 IUCV ERROR LOGGING PATH

 80E   VECSTAT  001 P*26 VECTOR FACILITY STATUS FLAGS

    Values defined in VECSTAT

    80 VECAVAIL          VF AVAILABLE ON THIS PROCESSOR
    40 VECINST           VF INSTALLED ON THIS PROCESSOR
    20 VECOPVF           VF AVAILABLE ON OTHER PROCESSOR
    10 VECSAOK           VECUSER SAVE AREA IS VALID
    08 VECVARY           VARY VECTOR IS IN PROCESS

 80F   PSARSV4  001      RESERVED FOR IBM USE

 810   VECUSER  004      VECTOR FACILITY USER VMBLOK

 814   PSALANG  004      LANGBLOK CHAIN ANCHOR

 818   ALPRTBLK 004      ADDRESS OF LPTRBLOK CHAIN

 81C   PSARSV5  004      RESERVED FOR IBM USE

 820   PSARSV6  096      RESERVED FOR IBM USE

 880   PSAEND   000      END OF PAGE 0 USAGE
```

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

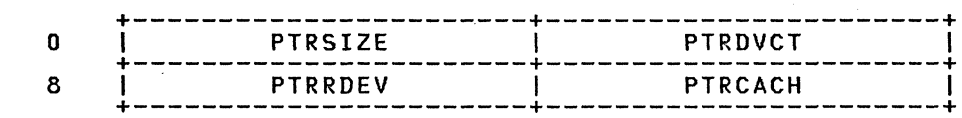
```
ACORETBL 03CC      ALOKVM   06F0      APUOPER  069A 80   ARSPPR   0380
ACRLOCK  06DD      ALOKTRL  07E0      AQCNWT   04F0      ARSPPU   0384
ACTIVTRQ 0684      AMCHAREA 06A0      ARDCBLOK 06F4      ARSPRD   0388
ADMKCPE  0704      APAGCP   03D0      ARIOCC   03C0      ARSPTA   042C
ADSPCH   04F4      APSTALOC 07EC      ARIOCH   03B4      ASCHN    041C
AEXTSP   06FC      APSTAT   06C5      ARIOCT   03B0      ASFBACO  0428
AFREE    04E8      APSTATUS 069A      ARIOCU   03B8      ASVCLIST 03E4
AFREEP   07DC      APSTAT1  069A      ARIODC   03C8      ASYSABND 03A4
AFRET    04EC      APSTAT2  069B      ARIODV   03BC      ASYSCCT  06CC
ALOKDS   07D4      APSTAT3  06C5      ARIOPR   0390      ASYSLC   03A8
ALOKFR   0410      APSTAT4  06C6      ARIOPU   038C      ASYSOP   03AC
ALOKRM   0418      APSTAT5  06C7      ARIORD   0394      ASYSVM   037C
ALOKSP   06F8      APTRAN   04F8      ARIOUC   03C4      ATMRSN   0700
ALOKSY   0414      APTRLK   04D0      ARSPAC   039C      AVMALIST 03E8
```

AVMREAL	03A0		CPSTAT5	06DF		FREER12	02B0		LOCKSAV	0640	
BALRSAVE	0240		CPSTPTAV	034B	02	FREER13	02B4		LOKREQ	07E4	
BALRSAV2	07E8		CPSUPER	0348	08	FREER14	02B8		LOKSAVE	0580	
			CPSYSLK	06C5	80	FREER15	02BC		LOKSAV2	0750	
BALR0	0240		CPTERMLK	069D		FREER2	0288		LPUADDR	0696	
BALR1	0244		CPTCH	07FB	80	FREER3	028C		LPUADDX	0698	
BALR10	0268		CPTIDLE	034B	80	FREER4	0290		MCNPSW	0070	
BALR11	026C		CPTIONT	034B	20	FREER5	0294		MCOPSW	0030	
BALR12	0270		CPTPAGE	034B	40	FREER6	0298		MFASAVE	05C0	
BALR13	0274		CPUID	0308		FREER7	029C		MONCLASS	0094	
BALR14	0278		CPULOG	0080		FREER8	02A0		MONCODE	009C	
BALR15	027C		CPUMCELL	030E		FREER9	02A4		MONNEXT	03F8	
BALR2	0248		CPUMODEL	030C		FREESAVE	0280		MONREGS	0710	
BALR3	024C		CPUSAGE	0200		FREEWORK	02C0		MPFEAT	069A	10
BALR4	0250		CPUSER	0309		FRLKPROC	069F		MPGEND	069A	20
BALR5	0254		CPUVERSN	0308		FXDLOG	0100		MPUOPER	069A	04
BALR6	0258		CPWAIT	0348	80	F0	0478	40	MSSPRES	039A	80
BALR7	025C		CPXSTOR	06BF	10	F1	0480		NOADD	04D4	
BALR8	0260		CP370EAV	034A	02	F10	04A4		OFFLPROC	06C6	02
BALR9	0264		CP370EON	034A	01	F15	04A8		PAGECUR	03F0	
BCTWAIT	06BC		CRLOG	01C0		F16	04AC		PAGELOAD	036C	
BLANKS	0470		CSAADDR		0408	F2	0484		PAGEND	03FC	
CAW	0048		CSSFEAT	069A	02	F20	04B0		PAGENXT	03F4	
CCHCPEX	066C		CSW	0040		F24	04B4		PAGERATE	036E	
CHANID	00A8		DATE	02F0		F240	04BC		PAGEWAIT	0318	
CHGREGS	06B0		DIRECTCT	0800		F255	04C0		PENDCONN	06C8	
CPABEND	0374		DPAPUOP	06DE	40	F256	04C4		PERADD	0098	
CPAPRINP	039B		DPMICON	06DE	80	F3	0488		PERCODE	0096	
CPAPRPND	06C6	08	DPOKTLB	06DE	10	F4	048C		PGIDADDR	07EC	
CPASTAVL	034A	08	DPSEGPRT	06DE	20	F4095	04C8		PGIDCPU	07EE	
CPASTON	034A	04	DPSTAT	06DE		F4096	04CC		PGIDMOD	07F5	
CPCCHLK	06C6	01	DSPLPSW	033C		F5	0490		PGIDTOD	07F7	
CPCREG0	03D4		DUMPSAVE	0500		F6	0494		PGREAD	0350	
CPCREG6	03D8		ECSWBYT3	00B3		F60	04B8		PGSRATIO	037A	
CPCREG8	03DC		ECSWLOG	00B0		F7	0498		PGWAITIM	0358	
CPDASAAV	034B	08	EMSINQSC	0688	01	F8	049C		PGWAITPG	0360	
CPDASAON	034B	04	EMSPCLKC	0688	08	F9	04A0		PGWRITE	0354	
CPEX	0348	20	EMSPEND	0688		GRLOG	0180		PMAAVAIL	040A	80
CPFRELK	069E		EMSPEXT	0688	40	IDLEWAIT	0310		PMAGUEST	040A	20
CPFRESW	06A0		EMSPQUI	0688	80	INMSFBLK	0080		PMAMODE	040A	40
CPFVRUN	0348	10	EMSPSHD	0688	10	INSTWRD1	0430		PMASTAT	040A	
CPID	0370		EMSPSYNC	0688	20	INSTWRD2	0434		POFFLINE	06C6	04
CPIEXLOG	06BF	08	EMSPXEX	0688	04	INSTWRD3	0438		PREFIXA	0660	
CPINIT	06DF	40	EMSRCLKC	068C	08	INSTWRD4	043C		PREFIXB	0664	
CPINITD	069A	01	EMSREC	068C		INTEX	0086		PRIMEHDR	07D8	
CPLOKFL	06C6	80	EMSREXT	068C	40	INTEXF	0084		PRIMEHI	07C4	
CPMCHLK	069B	10	EMSRQUI	068C	80	INTKFLIN	00B8		PRIMELO	07C0	
CPMCHSE	06C6	20	EMSRSHD	068C	10	INTMC	00E8		PRNPSW	0068	
CPMFAWIA	06C7	80	EMSRSYNC	068C	20	INTPR	008E		PROBSTRT	06A8	
CPMICAVL	034A	80	EMSRXEX	068C	04	INTPRL	008C		PROBTIME	0328	
CPMICON	034A	40	EXCLOCK	07C8		INTRC	00F4		PROCIO	069A	40
CPPTLBR	069B	02	EXDCCF	00F4	08	INTSVC	008A		PROCIPL	069A	08
CPQVMCU	06BF	04	EXDCNO	00F4	10	INTSVCL	0088		PROCSCHK	06C6	10
CPRESTRT	034C		EXDINSTO	00F4	04	INTTIO	00BA		PROPSW	0028	
CPRSTPND	034B	10	EXDINTTO	00F4	02	IOELPNTR	00AC		PSACPXBP	0668	
CPRUN	0348	40	EXDRESVD	00F4	80	IONPSW	0078		PSADSPRQ	07D0	
CPSEGPRT	06BF	01	EXNPSW	0058		IONTWAIT	0320		PSAEND	0820	
CPSHRLK	034A	20	EXOPSW	0018		IOOPSW	0038		PSAEVMA	040B	
CPSHUT	06BF	20	FAILSTAD	00F8		IPLCCW1	0008		PSAEXT	0708	
CPSIMLTB	06BF	02	FASTCPU	06DE	F0	IPLCCW2	0010		PSAEXTX	070C	
CPSPMODE	034A	10	FFS	0478		IPLPSW	0000		PSAIOSW	070C	08
CPSTAT	0348		FPRLOG	0160		IPUADDR	0398		PSAPGID	07F0	
CPSTATUS	0348		FREER0	0280		IPUADDRX	0694		PSAMSS	039A	
CPSTAT2	034A		FREER1	0284		IREALVF	07FB	40	PSAR1	0008	
CPSTAT3	034B		FREER10	02A8		IUCVCNT	07A4		PSAR2	00A0	
CPSTAT4	06BF		FREER11	02AC		LASTUSER	03EC		PSAR3	00B4	

PSAR4	00BC		STACKVM	06D0		TRACFLG3	0402		TRAVCSET	0402	40
PSAR5	00F1		STARTIME	0300		TRACFLG4	0403		TREXADD	0090	
PSARSV2	07E6		SVCNPSW	0060		TRACIUCV	0402	80	TTSEGCNT	0404	
PSARSV3	0802		SVCOPSW	0020		TRACPROC	06C4		UNSHRVM	06C0	
PSARSV4	080F		SVCREGS	0650		TRACSTRT	000C		UNSHRVM2	06D4	
PSARSV5	081C		SWTHSAVE	0600		TRACSVST	07B0		VECAVAIL	080E	80
PSARSV6	0820		SYSIPLDV	0378		TRACSVEN	07B0		VECINST	080E	40
PSASVCCT	0368		TEMPR0	0200		TRACSVCR	07B8		VECOPVF	080E	20
PSASYSID	06E8		TEMPR1	0204		TRACOA	0401	80	VECSAOK	080E	10
PSBCLR2	0500		TEMPR10	0228		TRACOC	0401	40	VECSTAT	080E	
PSECLR2	06F0		TEMPR11	022C		TRACOD	0401	20	VECUSER	0810	
PSENDCLR	0370		TEMPR12	0230		TRAC01	0400	80	VECVARY	080E	08
PSTARTSV	0378		TEMPR13	0234		TRAC02	0400	40	VGPTR	07AC	
PNTPAGES	0680		TEMPR14	0238		TRAC03	0400	20	VRSVUID	0420	
QUANTUM	0054		TEMPR15	023C		TRAC04	0400	10	VSMPTR	040C	
QUANTUMR	004C		TEMPR2	0208		TRAC05	0400	08	WAITEND	0678	
RDIDX	06DF	80	TEMPR3	020C		TRAC08	0400	02	WAITSTRT	0670	
RECMODE	06C6	40	TEMPR4	0210		TRAC09	0400	01	XCAPR	0690	80
REGNCODE	00FC		TEMPR5	0214		TRAC10	0401	08	XCDISP	0690	10
RSRTNPSW	0000		TEMPR6	0218		TRAC11	0401	04	XCPEND	0690	
RSRTOPSW	0008		TEMPR7	021C		TRAC12	0401	02	XCRES	0690	40
RUNCR0	0340		TEMPR8	0220		TRAC13	0401	01	XCWAK	0690	20
RUNCR1	0344		TEMPR9	0224		TRAC17	0402	20	XKEYASST	06BF	40
RUNPSW	0330		TEMPSAVE	0200		TRAC67	0400	04	XKEYMODE	06BF	80
RUNUSER	0338		TIMEDISP	03E0		TRAFPFLG	0402	10	XPAGNUM	04E0	
RUN370E	06B8		TIMER	0050		TRAPCP	0790		XRIGHT16	04E4	
SHRLKCNT	06A4		TODATE	02F8		TRAPCR8	06E4		XRIGHT24	04DC	
SIGSAVE	0540		TRACBEF	0401	10	TRAPDATA	07A8		XTNDCR2	06D8	
SAVETRAC	7BC		TRACCURR	0014		TRAPOK	0798		XTNDLOCK	0349	
SNAENBLE	06DC	80	TRACEFLG	0400		TRAPSTRT	0790	80	X2048BND	04FC	
SNASTATS	06DC		TRACEND	0010		TRAPTT	06E0		X40FFS	04D8	
SPMPFX	07A0		TRACFLG1	0400		TRAPVT	0794		ZEROES	0440	
SPXCR6	049C	9C	TRACFLG2	0401							

PTRLIST: 3880 STORAGE CONTROL CACHBLOK POINTER LIST

PTRLIST contains a pointer to the RDEVBLOK for each 3880 Model 11 and 21 Storage Control. At the time of data collection, CNTSREC is defined in DMKRIO, excluding paging exposure devices. PTRLIST also contains a pointer to the CACHBLOK for the device if it online and CP-owned. If a device is not eligible for monitoring, the CACHBLOK pointer (PTRCACH) is zero. The DMKENTIM field in DMKENT points to PTRLIST. PTRLIST is found in CACHBLOK copy.



SIZE

SIZE OF EACH ENTRY IN BYTES (PTRENLN) 8

Disp	Name	Len	Key	Description
0	PTRSIZE	4		SIZE OF LIST IN DOUBLEWORDS
4	PTRDVCT	4		NUMBER OF 3880-11 DEVICES
8	PTRNTRY	0		BEGINNING OF ACTUAL LIST
8	PTRRDEV	4		POINTER TO RDEVCUP RDEVBLOK
C	PTRCACH	4		POINTER TO RDEVCUP CACHBLOK

CROSS REFERENCE

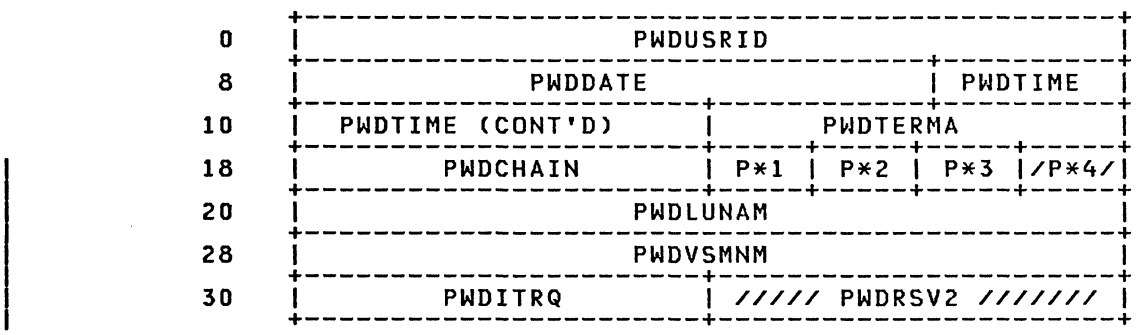
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
PTRCACH  000C ..    PTRENLN  0000 08    PTRRDEV  0008 ..    PTRSIZE  0000 ..
PTRDVCT  0004 ..    PTRNTRY  0008 ..
```

PWDIBLOK: INVALID PASSWORD BLOCK

PWDIBLOK is used to retain information about invalid passwords supplied with LOGON and AUTOLOG commands. PWDIBLOK is chained from the JPSPCHN field in JPSCBLOK. PWDIBLOK is found in PWDIBLOK copy.



SIZE

PWDIBLOK SIZE IN DOUBLEWORDS (PWDSIZE) 7

Disp	Name	Len	Key	Description
0	PWDUSRID	8		USERID ATTEMPTING LOGON/AUTOLOG
8	PWDDATE	6		DATE (MMDDYY)
E	PWDTIME	6		TIME (HHMMSS)
14	PWDTERMA	4		TERMINAL ADDRESS
18	PWDCHAIN	4		ADDRESS OF NEXT PWDIBLOK
1C	PWDINVCT	1	P*1	INVALID PASSWORD COUNT
1D	PWDFLAGS	1	P*2	PWDFLAGS
	Values defined in PWDFLAGS			
	80 PWDLOG			THIS BLOCK FOR LOGON
	40 PWDALOG			THIS BLOCK FOR AUTOLOG
1E	PWDLGCNT	1	P*3	INVALID PASSWORD TRIES SINCE LAST OK
1F	PWDRSV1	1	P*4	RESERVED FOR IBM USE
20	PWDLUNAM	8		LUNAME FOR VM/VTAM TERMINALS
28	PWDVSMNM	8		VSM USERID FOR VM/VTAM TERMINALS
30	PWDITRQ	4		ADDRESS OF LOGON DELAY TRQBLOK
34	PWDRSV2	4		RESERVED FOR IBM USE

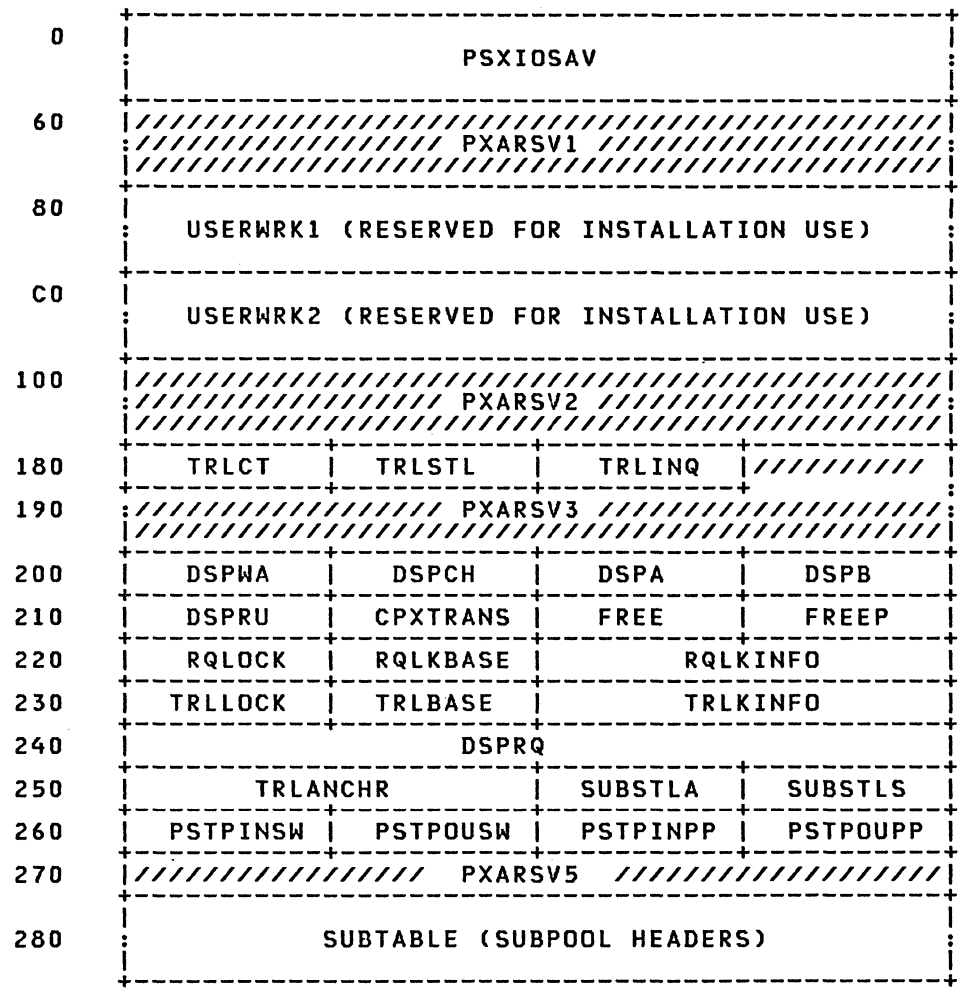
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

PWDALOG	001D	40	PWDINVCT	001C	..	PWDLUNAM	0020	..	PWDTERMA	0014	..
PWDCHAIN	0018	..	PWDITRQ	0030	..	PWDRSV1	001F	..	PWDTIME	000E	..
PWDDATE	0008	..	PWDLGCNT	001E	..	PWDRSV2	0034	..	PWDUSRID	0000	..
PWDFLAGS	001D	..	PWDLOG	001D	80	PWDSIZE	....	7	PWDVSMNM	0028	..

PXA: PREFIX STORAGE AREA EXTENSION

PXA is an extension of the PSA macro. The PSA points to the PXA. All counters in PXA are tallies of actions performed by the local processor, not the entire system. The PSAEXT field in PSA points to the PXA. PXA is found in PXA macro.



Disp	Name	Len	Key	Description
0	PSXIOSAV	96		I/O SAVE AREA

60	PXARSV1	32	RESERVED FOR IBM USE

PROCESSOR LOCAL CACHE-LINE RESERVED FOR INSTALLATION USE

80	USERWRK1	64	RESERVED FOR INSTALLATION USE
C0	USERWRK2	64	RESERVED FOR INSTALLATION USE

PROCESSOR LOCAL CACHE-LINE RESERVED FOR IBM USE

100	PXARSV2	128	RESERVED FOR IBM USE

THE FOLLOWING CACHE LINE (128 BYTES) SHOULD NOT BE USED
FOR FREQUENTLY-REFERENCED FIELDS AS THERE WILL BE
A GREAT DEAL OF STORAGE CONTENTION

180	TRLCT	4	INSTANTANEOUS COUNT OF VMBLOKS ON THE LOCAL DISPATCH LIST (TRL)
184	TRLSTL	4	NUMBER OF STEALS
188	TRLINQ	4	TOTAL OF THE NUMBER OF VMBLOKS LEFT ON THE OTHER TRL AFTER EACH STEAL
18C	PXARSV3	52	RESERVED FOR IBM USE
1C0	PXARSV4	64	RESERVED FOR IBM USE

ALL COUNTERS IN THE PXA ARE TALLIES OF ACTIONS PERFORMED
BY THE LOCAL PROCESSOR (NOT THE ENTIRE SYSTEM)

200	DSPWA	4	NUMBER OF ENTRIES TO DMKDSPWA
204	DSPCH	4	NUMBER OF ENTRIES TO DMKDSPCH
208	DSPA	4	NUMBER OF ENTRIES TO DMKDSPA
20C	DSPB	4	NUMBER OF ENTRIES TO DMKDSPB
210	DSPRU	4	NUMBER OF ENTRIES TO DMKDSPRU
214	CPXTRANS	4	NUMBER OF TRANSFERRED CPXBLOKS
218	FREE	4	NUMBER OF ENTRIES TO DMKFREE
21C	FREEP	4	NUMBER OF PRIME MISSES

PRIME MISS = REQUEST FOR PRIME BLOCK OF FREE STORAGE
WHICH MUST BE SATISFIED WITH "NORMAL" FREE STORAGE
BECAUSE ALL PRIME IS IN USE

LOCAL LOCKWORDS FOR LOCAL DSPRQ AND TRL

220	RQLOCK	4	LOCKWORD FOR DRBLOK QUEUE

```
224   RQLKBASE   4       BASE REG VALUE OF LOCK OWNER
228   RQLKINFO   8       SPIN INFORMATION
230   TRLLOCK    4       LOCKWORD FOR TRUE RUNLIST
234   TRLBASE    4       BASE REG VALUE OF LOCK OWNER
238   TRLKINFO   8       SPIN INFORMATION
240   DSPRQ     16       IOB-TRQ AND CPEXBLOK QUEUES

      DEFERRED REQUEST BLOCK (DRBLOK) QUEUE AND DISPATCHER LIST
   TRLLABEL EQU *-(VMFTRL-VMBLOK) ANCHOR FOR TRUE RUN LIST
250   TRLANCHR   8       (TRLLABEL+X'80000000") ANCHOR IS NEG

      THE FOLLOWING FIELDS ARE USED TO HOLD STATISTICAL INFORMATION
      REGARDING THE NUMBER OF TIMES STEALING FOR SUBPOOL SIZES WAS
      ATTEMPTED AND SUCCESSFULLY MADE.
      THE FIRST FULLWORD IS A COUNT OF ATTEMPTS TO STEAL.
      THE SECOND FULLWORD IS A COUNT OF SUCCESSFUL STEALS.

258   SUBSTLA    4       SUBPOOL STEALS ATTEMPTED
25C   SUBSTLS    4       NUMBER OF SUBPOOLS STOLEN
```

```
| 260   PSTPINSW   4      NUMBER OF SWAP PAGEINS THIS PROCESSOR
| 264   PSTPOUSW   4      NUMBER OF SWAP PAGEOUTS THIS PROCESSOR
| 268   PSTPINPP   4      NUMBER OF DEMAND PAGEINS THIS PROCESSOR
| 26C   PSTPOUPP   4      NUMBER OF DEMAND PAGEOUTS THIS PROCESSOR

        FREE STORAGE SUBPOOL HEADERS AND EQUATES

  1024  MAXHSIZ           MAXIMUM SIZE OF HPO SUBPOOL BLOCK
   128  SPBOUND           HPO SUBPOOL SIZE BOUNDARY

        LOWER SUBPOOL WIDTHS MAY BE CHANGED BY CHANGING
        THE EQUATES FOR LSPSIZE AND LSPSIZE$.
        NOTE: ECPS IS DEPENDENT ON THESE SIZES
            HPO LOWER SUBPOOL WIDTH
    02  LSPSIZE           HPO SUBPOOL WIDTH IN DOUBLEWORDS
    01  LSPSIZE$          LOG BASE 2 OF USPSIZE (SHIFT FACTOR)

        THE UPPER SUBPOOL WIDTHS MAY BE CHANGED BY CHANGING
        THE EQUATES FOR USPSIZE AND USPSIZE$.

            HPO UPPER SUBPOOL WIDTH
    32  USPSIZE           HPO SUBPOOL WIDTH IN DOUBLEWORDS
    01  USPSIZE$          LOG BASE 2 OF USPSIZE (SHIFT FACTOR)
        NUMPOOLS  (SPBOUND/LSPSIZE+(MAXHSIZ-SPBOUND)/USPSIZE)

        THE FOLLOWING TWO EQUATES DEFINE THE WIDTH
        OF THE HPO SUBTABLE USED FOR SUBPOOLS

    16  TABWDTH           HPO SUBTABLE WIDTH IN BYTES
    04  TABWDTH$          LOG BASE 2 OF TABWDTH (SHIFT FACTOR)

        FOLLOWING USED IN DMKFRE TO COMPUTE UPPER SUBPOOL ADDRESS

        UPPINCR           (SPBOUND *TABWDTH/LPSIZE)-(SPBOUND/
                          (USPSIZE/TABWDTH))

        SUBTABLE DEFINES THE HPO SUBPOOL LIST OF STACK POINTERS.
        THERE ARE TWO DOUBLEWORDS OF STORAGE FOR EACH SUBPOOL SIZE.
        THE FIRST DOUBLEWORD IS A FULLWORD POINTER AND A SEQUENCE
        NUMBER FOR NON-EXTENDED SUBPOOLS. THE SECOND DOUBLEWORD
        IS S FULLWORD POINTER AND A SEQUENCE NUMBER FOR EXTENDED
        SUBPOOLS.

  280   SUBTABLE          SIZE IN BYTES = NUMPOOLS*2*8
    270 SUBTABMX          BACKUP CONSTANT FOR TABLE OFFSET

     SUBHEAD DSECT DEFINES FORMAT FOR EACH 16-BYTE SUBPOOL HEADER
    0  SUBTOP      4      NON-EXTENDED STACK POINTER
    4  SUBCNT      0
    4              2      NUMBER OF BLOCKS ON THIS LIST
```

```
   6                2       SEQUENCE NUMBER FOR MONITOR
   8  EXSUBTOP      4       EXTENDED STACK POINTER
   C  EXSUBCNT      0
   C                2       NUMBER OF BLOCKS ON THIS LIST
   E                2       SEQUENCE NUMBER FOR MONITOR
      STAKSIZE     10       *-SUBHEAD  SIZE OF STACK IN BYTES
```

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CPXTRANS	0214		MAXHSIZ	0260	1024	RQLKBASE	0224		TRLCT	0180	
DSPRU	0210		NUMPOOLS	0260		RQLKINFO	0228		TRLLOCK	0230	
DSPA	0208	|	PSTPINPP	0268		RQLOCK	0220		TRLKINFO	0238	
DSPB	020C	|	PSTPINSW	0260		SUBCNT	0004		TRLLABEL	0250	
DSPCH	0204	|	PSTPOUPP	026C		SUBTOP	0000		TRLANCHR	0250	
DSPRQ	0240	|	PSTPOUSW	0264		SUBSTLA	0258		TRLINQ	0188	
DSPWA	0200		PSXIOSAV	0000		SUBSTLS	025C		TRLSTL	0184	
EXSUBCNT	000C		PXARSV1	0060		SUBTABLE	0280		USPSIZE	0260	32
EXSUBTOP	0008		PXARSV2	0100		SUBTABMX	0250	00	USPSIZE$	0260	05
FREE	0218		PXARSV3	19C		TABWDTH	0260	16	UPPINCR	0260	
FREEP	028C		PXARSV4	01C0		TABWDTH$	0260	04	USERWRK1	0080	
LSPSIZE	0260	02	PXARSV5	0260		TRLBASE	0234		USERWRK2	00C0	
LSPSIZE$	0260	01	SPBOUND	0260	128						

REAL I/O CONTROL BLOCKS

In order to control activity of the system's input/output (I/O) devices and to schedule I/O requests upon them, I/O control uses the following types of control blocks:

- Static Blocks that describe the components of the system
- Dynamic Blocks that represent active and pending requests for I/O operations.

The I/O components of the real system are described by one control block for each channel, control unit, and device available to the control program (CP). The base for locating the real I/O block structure is the prefix storage area (PSA). The PSA contains values for processor-specific information, which includes pointers to certain control and save areas. The control block tables contain one block for each of the real channels, real control units, and real devices that are attached to the system.

REAL CHANNEL CONTROL BLOCKS

There is a real channel control block (RCHBLOK) for each channel attached to the system. Each RCHBLOK contains:

- Channel portions of the address of the attached units
- Status flags indicating the channel's availability for scheduling
- Two-way queue anchor pointing to a list of I/O requests waiting for the channel

In addition, each RCHBLOK contains 32 halfword indexes arranged in ascending address order. These indexes represent displacements into the real control unit table. The 32 entries are required because the 16 control units configure devices in two groups of eight each. To locate the real control unit block (RCUBLOK) for a given control unit, you must:

1. Index in halfwords into the RCHBLOK to displacement X'20' where the table begins. For devices numbered 0 through 7, add a displacement equal to twice the control unit address. For devices numbered 8 through F, you double the control unit address and add one.
2. Extract the halfword index value from the table.
3. Add the index value to the address of the first RCUBLOK in the real control unit table (address obtained from the PSA). The resulting address is that of the RCUBLOK for the specific control unit you want.

REAL CONTROL UNIT BLOCKS

The real control unit table is composed of real control unit blocks (RCUBLOKs), one for each control unit in the system. These blocks contain the control unit portion of the device address, status flags, and a pointer to a queue of I/O requests. In addition, the RCUBLOK contains a pointer to the RCHBLOK of the channel to which it is attached. The RCUBLOK contains a table of 16 halfword entries that represent displacements into the real

device table. This table is referenced just like the table in the RCHBLOK. In order to locate the real device block (RDEVBLOK) for a particular device:

1. Index into the RCUBLOCK to displacement X'28' where the table begins. For devices numbered 0 through F, add a displacement of halfwords equal to the device number plus one.
2. Extract the halfword index value from the table and multiply the value by eight. Note that this can be easily acquired by writing the binary value then adding three low-order zeros. Essentially, shift the bits three places to the left.
3. Add the resulting value to the address of the first RDEVBLOK in the real device table (address obtained from the PSA). The resulting address is that of the specific RDEVBLOK you want.

Figure 2 depicts the steps taken to reach a specific RDEVBLOK.

REAL DEVICE CONTROL BLOCKS

Each device and 3270 remote communications line in the system is represented by a real device control block (RDEVBLOK) that contains the device portion of the unit address and status flags similar to those in RCHBLOK and RCUBLOK. There is also a pointer to those operations that are waiting for the device to become available. Fields that appear in the RDEVBLOK and not in the other blocks include a pointer to the I/O request currently active on the device, SIO counts, and a pointer to error and sense information. The RDEVBLOK contains a pointer to the RCUBLOK of the control unit to which it is attached and device-dependent information which does not affect the I/O control operation.

If the RDEVBLOK is associated with a 3270 remote communications line, then the block must also contain a pointer to network interface control blocks (NICBLOKs) that represent the resources on that line.

Figure 2 takes you visually through the steps taken to find the RDEVBLOK for a real device.

INPUT/OUTPUT BLOCKS

Input/output (I/O) requests that are active in the system are represented by input/output blocks (IOBLOKs). There is one IOBLOK for each channel program operation to be executed. The IOBLOK is constructed by the requesting task and contains such information as:

- The identity of the requestor
- The address of the channel program to be executed
- The address to which control is to be returned upon completion of the operation

In addition, the IOBLOK contains status flags that indicate the current state of the operation and the CSW associated with the interrupt signaling the end of the operation. Since IOBLOKs are queued from various I/O control blocks, they also contain forward and backward queue pointers. The DMKIOS module builds into them the real device address of the unit on which the operation starts.

In general, the IOBLOK that represents a given operation proceeds in

sequence through the system by being queued from device, control unit, and channel blocks until a path is found to the device. Finding the unused path activates issuance of an SIO. Upon completion of the operation, the IOBLOK moves from the RDEVBLOK queue to a stack on a dispatcher (DMKDSP) queue. Each IOBLOK move to the dispatcher stack causes unstacking of the queue and passing control to the point specified in the interrupt return address (IOBIRA). Once I/O control stacks the IOBLOK for the given task, it attempts to restart all of the components that have been freed on completion of the operation.

NETWORK INTERFACE CONTROL BLOCK

There is one network interface control block (NICBLOK) for each defined 370x and for each resource attached to a 3270 bisynchronous line. The NICBLOK matches the line or device address to the physical resource connected to that line or device. The NICBLOK not only defines the identity of the terminal, line, or control unit, but also contains flags and status information pertaining to that particular resource. If the defined resource is a remote 3270 component, the NICBLOK also contains current line coordinates as well as polling and selection character information.

The real I/O control blocks and their detailed descriptions follow.

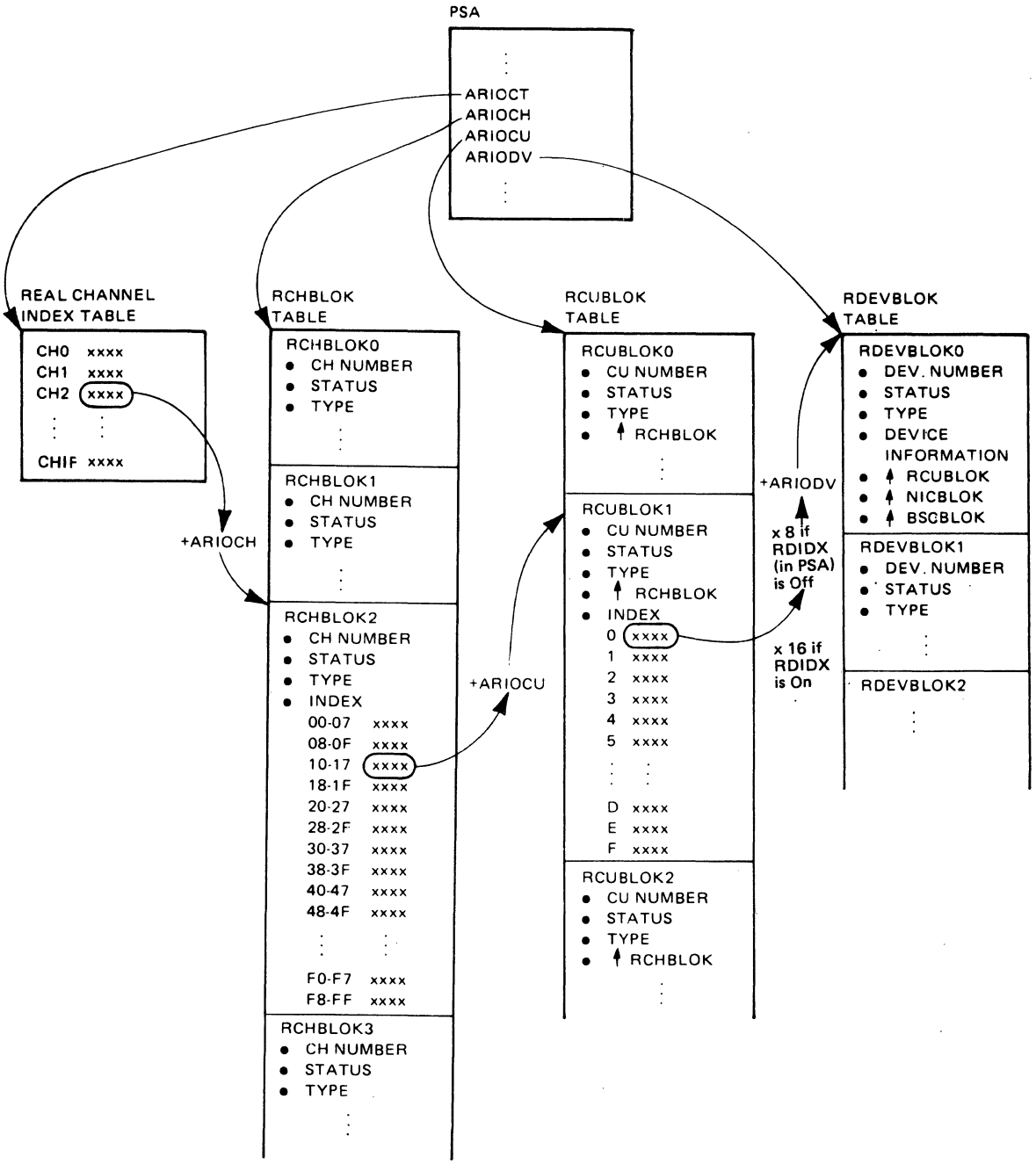
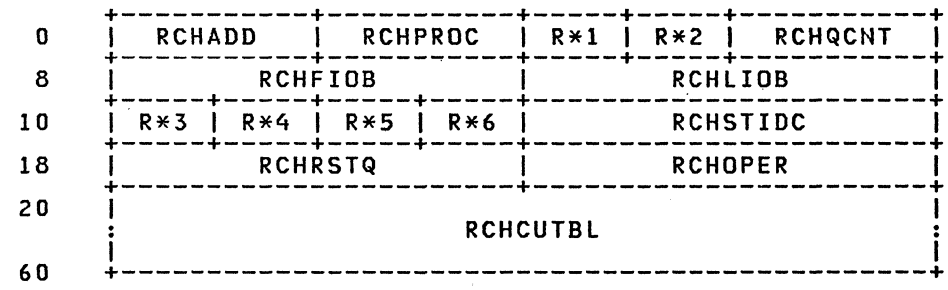


Figure 2. Example of Locating a RDEVBLOK for a Real Device at Address 210

RCHBLOK: REAL CHANNEL BLOCK

RCHBLOK contains status and type information for the specified channel. The linkage to I/O tasks operated on by that channel and to the control units attached to that channel is also maintained. The ARIOCH field of the PSA points to the first entry in the RCHBLOK table, which is generated in contiguous storage. RCHBLOK is found in RBLOKS copy.



SIZE

RCHBLOK SIZE IN DOUBLEWORDS (RCHSIZE) C

Disp	Name	Len	Key	Description
0	RCHADD	2		CHANNEL ADDRESS
2	RCHPROC	2		OWNING PROCESSOR'S LPUADDR
4	RCHSTAT	1	R*1	CHANNEL STATUS

Values defined in RCHSTAT

80	RCHBUSY	CHANNEL BUSY
40	RCHSCED	IOB SCHEDULED ON CHANNEL
20	RCHPEND	CHANNEL PENDING OFFLINE
08	RCHDISA	CHANNEL NOT ONLINE
01	RCHDED	CHANNEL DEDICATED

5	RCHTYPE	1	R*2	CHANNEL TYPE

Values defined in RCHTYPE

80	RCHSEL	SELECTOR CHANNEL
40	RCHBMX	BLOCK-MULTIPLEXER CHANNEL
40	RCHFTA	FILE TAPE ADAPTER 'CHANNEL'
20	RCHMPX	BYTE-MULTIPLEXER CHANNEL
01	RCH370	370 TYPE CHANNEL (370 I/O INST SUPPORT)

6	RCHQCNT	2		NUMBER OF IOBLOKS QUEUED OFF CHANNEL
8	RCHFIOB	4		ADDRESS OF FIRST IOBLOK QUEUED
C	RCHLIOB	4		ADDRESS OF LAST IOBLOK QUEUED
10	RCHDTCK	1	R*3	CHANNEL DATA CHECK COUNT
11	RCHCCCK	1	R*4	CHANNEL CONTROL CHECK COUNT

12	RCHIFCC	1	R*5	INTERFACE CONTROL CHECK COUNT
13	RCHCHCK	1	R*6	CHANNEL CHAINING CHECK COUNT
14	RCHSTIDC	4		RESULT OF STIDC AT CP IPL (FF'S IF CC=3)
18	RCHRSTQ	4		ADDRESS OF CHANNEL TO BE RESTARTED
1C	RCHOPER	4		IOBLOK OPERATIONAL ON CHANNEL TIME
20	RCHCUTBL	64		CONTROL UNITS ATTACHED - RCUSTART INDEX

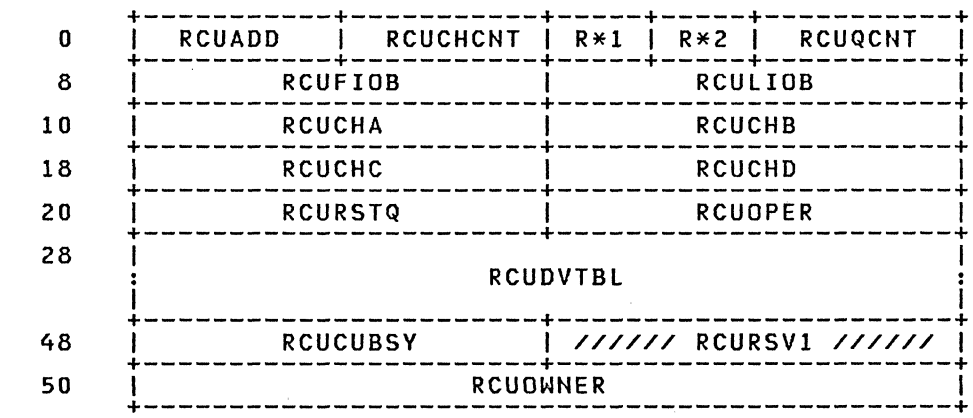
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

RCHADD	0000	..	RCHDISA	0004	08	RCHOPER	001C	..	RCHSEL	0005	80
RCHBMX	0005	40	RCHDTCK	0010	..	RCHPEND	0004	20	RCHSIZE	....	C
RCHBUSY	0004	80	RCHFIOB	0008	..	RCHPROC	0002	..	RCHSTAT	0004	..
RCHCCCK	0011	..	RCHFTA	0005	40	RCHQCNT	0006	..	RCHSTIDC	0014	..
RCHCHCK	0013	..	RCHIFCC	0012	..	RCHRSTQ	0018	..	RCHTYPE	0005	..
RCHCUTBL	0020	..	RCHLIOB	000C	..	RCHSCED	0004	40	RCH370	0005	01
RCHDED	0004	01	RCHMPX	0005	20						

RCUBLOK: REAL CONTROL UNIT BLOCK

RCUBLOK provides control and status information about a defined real control unit. Linkages are provided to queued IOBLOKs. The ARIOCU field of the PSA points to the first entry in the RCUBLOK table, which is generated in contiguous storage. RCUBLOK is found in RBLOKS copy.



SIZE

RCUBLOK SIZE IN DOUBLEWORDS (RCUSIZE) B

Disp	Name	Len	Key	Description
0	RCUADD	2		CONTROL UNIT ADDRESS
2	RCUCHCNT	2		NUMBER OF USER DEFINED CHANNEL PATHS
4	RCUSTAT	1	R*1	CONTROL UNIT STATUS

Values defined in RCUSTAT

80	RCUBUSY	CONTROL UNIT BUSY
40	RCUSCED	IOB SCHEDULED ON CONTROL UNIT
20	RCUDISA	CONTROL UNIT DISABLED
10	RCUSENSE	SENSE PENDING FOR CU
04	RCUSENIO	SENSE STARTED ON THIS CU

5	RCUTYPE	1	R*2	CONTROL UNIT TYPE

Values defined in RCUTYPE

80	RCUSHRD	THIS CU MAY ATTACH TO ONLY 1 SUBCHANNEL
40	RCUSUB	THIS IS A SUBORDINATE CONTROL UNIT
20	RCU3880	3880 DIRECTOR MODULE
10	RCUCACH	CACHE TYPE CONTROL UNIT
03	RCU2703	TCU IS A 2703
02	RCU2702	TCU IS A 2702
01	RCU2701	TCU IS A 2701

6	RCUQCNT	2		NUMBER OF IOBLOKS QUEUED OFF CU

8	RCUFIOB	4	ADDRESS OF FIRST IOBLOK QUEUED
C	RCULIOB	4	ADDRESS OF LAST IOBLOK QUEUED
10	RCUCHA	4	ADDRESS OF RCHBLOK - INTERFACE A
10	RCUPRIME	4	ADDRESS OF THE PRIMARY CONTROL UNIT
14	RCUCHB	4	ADDRESS OF RCHBLOK - INTERFACE B
18	RCUCHC	4	ADDRESS OF RCHBLOK - INTERFACE C
1C	RCUCHD	4	ADDRESS OF RCHBLOK - INTERFACE D
20	RCURSTQ	4	ADDRESS OF CONTROL UNIT TO RESTART
24	RCUOPER	4	IOBLOK OPERATIONAL ON CONTROL UNIT TIME
28	RCUDVTBL	32	DEVICES ATTACHED - RDVSTART INDEX
48	RCUCUBSY	4	QUEUE OF CONTROL UNIT BUSY IOBLOKS
4C	RCURSV1	4	RESERVED FOR IBM USE
50	RCUOWNER	8	USERID OF CACHE OWNER

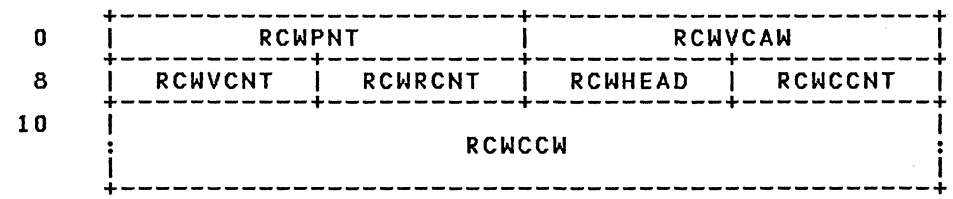
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

RCUADD	0000	..	RCUCUBSY	0048	..	RCUQCNT	0006	..	RCUSTAT	0004	..
RCUBUSY	0004	80	RCUDISA	0004	20	RCURSTQ	0020	..	RCUSUB	0005	40
RCUCACH	0005	10	RCUDVTBL	0028	..	RCURSV1	004C	..	RCUTYPE	0005	..
RCUCHA	0010	..	RCUFIOB	0008	..	RCUSCED	0004	40	RCU2701	0005	01
RCUCHB	0014	..	RCULIOB	000C	..	RCUSENIO	0004	04	RCU2702	0005	02
RCUCHC	0018	..	RCUOPER	0024	..	RCUSENSE	0004	10	RCU2703	0005	03
RCUCHCNT	0002	..	RCUOWNER	0050	..	RCUSHRD	0005	80	RCU3880	0005	20
RCUCHD	001C	..	RCUPRIME	0010	..	RCUSIZE	....	B			

RCWTASK: TRANSLATED VIRTUAL I/O CCW

RCWTASK contains the virtual-to-real CCW translation and other data related to a virtual machine's I/O operation. A pointer is maintained to the virtual CCW operation. The first CCW-16 points to the beginning of RCWTASK. RCWTASK is found in IOBLOKS copy.



Disp	Name	Len	Key	Description
0	RCWPNT	4		ADDRESS OF NEXT RCWTASK
4	RCWVCAW	4		VIRTUAL ADDRESS OF CCW CHAIN
8	RCWVCNT	2		VIRTUAL CCW COUNT
A	RCWRCNT	2		REAL CCW COUNT
C	RCWHEAD	2		RCWTASK HEADER MARK X'FFFF'
E	RCWCCNT	2		RCWTASK CONTROL WORD COUNT
10	RCWCCW	8		ONE OR MORE CCWS FOR DEVICE I/O
10	RCWADDR	4		CCW DATA ADDRESS
10	RCWCOMND	1		CCW COMMAND CODE
14	RCWFLAG	1		CCW FLAG BITS
15	RCWCTL	1		CCW CP CONTROL BITS
	Values defined in RCWCTL			
80	RCWIO			I/O DATA PAGE LOCKED
40	RCWGEN			CP GENERATED CCW
20	RCWHMR			DMKUNT TO RELOCATE HOME ADDRESS/RECORD R0
10	RCWREL			CCW ADDRESS RELOCATABLE IF CCWS MOVED
08	RCWISAM			ISAM MODIFYING CCW
04	RCW2311			TYP2311T-B PSEUDO 2311 ON 2314
02	RCWINVL			CCW OP CODE OR ADDRESS IS INVALID
01	RCWSHR			'SHARED' USER PAGE WAS COPIED
16	RCWCNT	2		CCW BYTE COUNT

CROSS REFERENCE
(Name Disp Value)

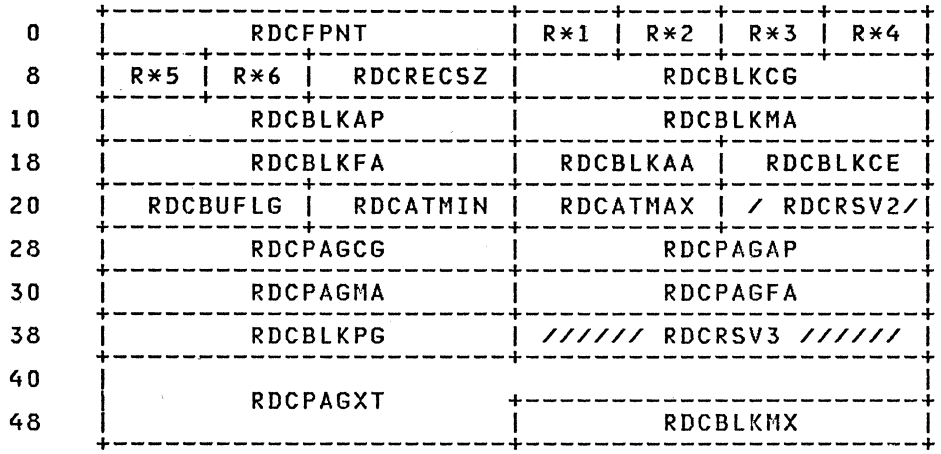
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

RCWADDR	0010	..	RCWCTL	0015	..	RCWINVL	0015	02	RCWREL	0015	10
RCWCCNT	000E	..	RCWFLAG	0014	..	RCWIO	0015	80	RCWSHR	0015	01
RCWCCW	0010	..	RCWGEN	0015	40	RCWISAM	0015	08	RCWVCAW	0004	..
RCWCNT	0016	..	RCWHEAD	000C	..	RCWPNT	0000	..	RCWVCNT	0008	..
RCWCOMND	0010	..	RCWHMR	0015	20	RCWRCNT	000A	..	RCW2311	0015	04

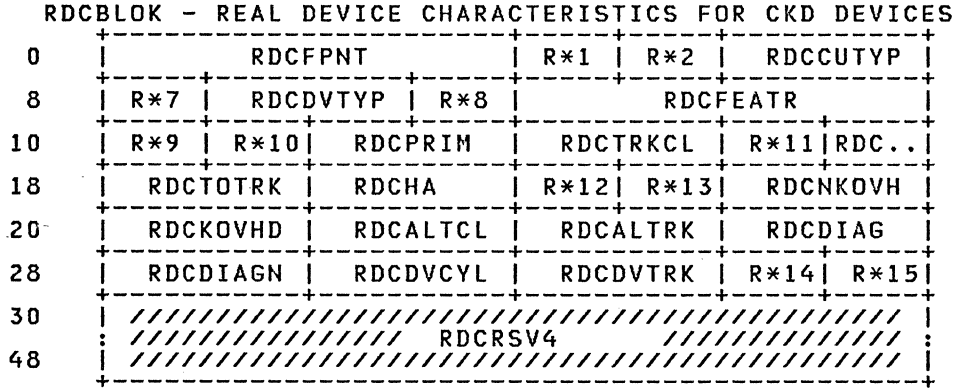
RDCBLOK: REAL DEVICE CHARACTERISTICS FOR FBA DEVICES

RDCBLOK is built dynamically at initial program load (IPL) time, or when a device is varied online and contains FB-512 device-dependent characteristics. The RDEVRDC field of the RDEVBLOK for each FB-512 device points to the RDCBLOK. RDCBLOKs are chained via RDCFPNT. ARDCBLOK in PSA points to the first RDCBLOK built. RDCBLOK is found in RBLOKS copy.

RDCBLOK - REAL DEVICE CHARACTERISTICS FOR FBA DEVICES



RDCBLOK - REAL DEVICE CHARACTERISTICS FOR CKD DEVICES



SIZE

SIZE OF RDCBLOK IN DOUBLEWORDS (RDCSIZE) A

Disp	Name	Len	Key	Description
0	RDCFPNT	4		ADDRESS OF NEXT RDCBLOK
4	RDCFLAG	1	R*1	INDEX OF CKD OR FBA DEVICE

Values defined in RDCFLAG

```
    80 RDCFBA              RDCBLOK FOR A FBA DEVICE
    40 RDCCKD              RDCBLOK FOR A CKD DEVICE

   5   RDCLENG    1 R*2    LENGTH OF RDC DATA BYTES

   6   RDCSTART   0        START OF THE RDC DATA BYTES

   6   RDCOPER    1 R*3    DEVICE OPERATION MODES

    Values defined in RDCOPER

    40 RDCOVRRN            OVERRUNNABLE DEVICE
    20 RDCBURST            BURST MODE DEVICE
    10 RDCDATCH            DATA CHAINING SUPPORTED

   6   RDCCUTYP   2        CONTROL UNIT TYPE

   7   RDCFEAT    1 R*4    DEVICE FEATURES

    Values defined in RDCFEAT

    40 RDCREMOV            REMOVABLE MEDIA FEATURE
    20 RDCRRLSE            RESERVE/RELEASE FEATURE
    08 RDCMOVAM            MOVABLE ACCESS MECHANISM
    04 RDCFIXAM            FIXED ACCESS MECHANISM

   8   RDCCLAS    1 R*5    DEVICE CLASS

   8   RDCCUMDL   1 R*7    CONTROL UNIT MODEL

   9   RDCTYPE    1 R*6    DEVICE TYPE

   9   RDCDVTYP   2        DEVICE TYPE

   A   RDCRECSZ   2        PHYSICAL RECORD SIZE

   B   RDCDVMDL   1 R*8    DEVICE MODEL

    Values defined in RDCDVMDL

    0A RDCMDL02            3380-AE4/BE4, DUAL DENSITY MODEL
    06 RDCMDL01            3380-AD4/BD4
    02 RDCMDL00            3380-AA4/A04/B04 (WITH DPS)

   C   RDCBLKCG   4        BLOCKS PER CYCLICAL GROUP (TRACK)

   C   RDCFEATR   4        DEVICE AND CONTROL UNIT FEATURES

  10   RDCBLKAP   4        BLOCKS PER ACCESS POSITION (CYLINDER)

  10   RDCDVCLS   1 R*9    DEVICE CLASS CODE

  11   RDCDVCOD   1 R*10   DEVICE TYPE CODE

  12   RDCPRIM    2        NUMBER OF PRIMARY CYLINDERS

  14   RDCBLKMA   4        BLOCKS UNDER MOVABLE ACCESS

  14   RDCTRKCL   2        TRACKS PER CYLINDER

  16   RDCSECT    1 R*11   NUMBER OF SECTORS

  17   RDCTOTRK   3        TOTAL USABLE TRACK LENGTH

  18   RDCBLKFA   4        BLOCKS UNDER FIXED ACCESS
```

1A	RDCHA	2		LENGTH FOR HA AND R0
1C	RDCBLKAA	2		BLOCKS IN ALTERNATE AREA
1C	RDCMODE	1	R*12	TRACK CAPACITY CALCULATION MODE
1D	RDCMDFR	1	R*13	TRACK CAPACITY CALCULATION MODIFIERS
1E	RDCBLKCE	2		BLOCKS IN CE AREA
1E	RDCNKOVH	2		NON-KEYED RECORD OVERHEAD
20	RDCBUFLG	2		NUMBER OF BUFFERED LOG BYTES
20	RDCKOVHD	2		KEYED AREA OVERHEAD
22	RDCATMIN	2		MINIMUM ACCESS TIME
22	RDCALTCL	2		ADDRESS OF FIRST ALTERNATE CYLINDER
24	RDCATMAX	2		MAXIMUM ACCESS TIME
24	RDCALTRK	2		NUMBER OF ALTERNATE TRACKS
26	RDCRSV2	2		RESERVED FOR IBM USE
26	RDCDIAG	2		ADDRESS OF DIAGNOSTIC CYLINDER
28	RDCPAGCG	4		PAGES PER CYCLICAL GROUP (TRACK)
28	RDCDIAGN	2		NUMBER OF DIAGNOSTIC TRACKS
2A	RDCDVCYL	2		ADDRESS OF FIRST DEVICE CYLINDER
2C	RDCPAGAP	4		PAGES PER ACCESS POSITION (CYLINDER)
2C	RDCDVTRK	2		NUMBER OF DEVICE SUPPORT TRACKS
2E	RDCMDR	1	R*14	MDR RECORD ID
2F	RDCOBR	1	R*15	OBR RECORD ID
30	RDCPAGMA	4		PAGES UNDER MOVABLE ACCESS
34	RDCPAGFA	4		PAGES UNDER FIXED ACCESS
38	RDCBLKPG	4		BLOCKS PER PAGE
3C	RDVRSV3	4		RESERVED FOR IBM USE
40	RDCPAGXT	16		DEFINE EXTENT DATA FOR PAGE SUPERVISOR
4C	RDCBLKMX	4		MAXIMUM BLOCK NUMBER ON VOLUME

CROSS REFERENCE
(Name Disp Value)

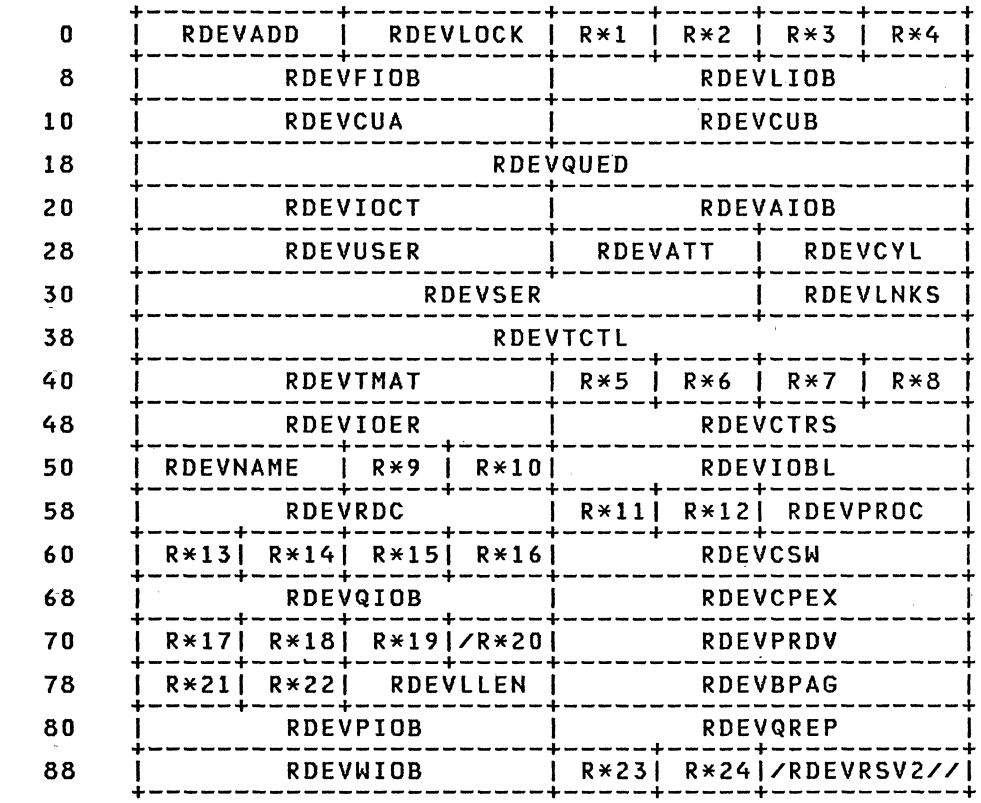
This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

RDCALTCL 0022 .. RDCALTRK 0024 .. RDCATMAX 0024 .. RDCATMIN 0022 ..

RDCBLKAA	001C	..	RDCDIAG	0026	..	RDCKOVHD	0020	..	RDCPAGAP	002C	..
RDCBLKAP	0010	..	RDCDIAGN	0028	..	RDCLENG	0005	..	RDCPAGCG	0028	..
RDCBLKCE	001E	..	RDCDVCLS	0010	..	RDCLENGC	....	40	RDCPAGFA	0034	..
RDCBLKCG	000C	..	RDCDVCOD	0011	..	RDCLENGF	....	20	RDCPAGMA	0030	..
RDCBLKFA	0018	..	RDCDVCYL	002A	..	RDCMDFR	001D	..	RDCPAGXT	0040	..
RDCBLKMA	0014	..	RDCDVMDL	000B	..	RDCMDL00	000B	02	RDCPRIM	0012	..
RDCBLKMX	004C	..	RDCDVTRK	002C	..	RDCMDL01	000B	06	RDCRECSZ	000A	..
RDCBLKPG	0038	..	RDCDVTYP	0009	..	RDCMDL02	000B	0A	RDCREMOV	0007	40
RDCBUFLG	0020	..	RDCFBA	0004	80	RDCMDR	002E	..	RDCRRLSE	0007	20
RDCBURST	0006	20	RDCFEAT	0007	..	RDCMODE	001C	..	RDCSECT	0016	..
RDCCKD	0004	40	RDCFEATR	000C	..	RDCMOVAM	0007	08	RDCSIZE	....	A
RDCCLAS	0008	..	RDCFIXAM	0007	04	RDCNKOVH	001E	..	RDCSTART	0006	..
RDCCUMDL	0008	..	RDCFLAG	0004	..	RDCOBR	002F	..	RDCTOTRK	0017	..
RDCCUTYP	0006	..	RDCFPNT	0000	..	RDCOPER	0006	..	RDCTRKCL	0014	..
RDCDATCH	0006	10	RDCHA	001A	..	RDCOVRRN	0006	40	RDCTYPE	0009	..

RDEVBLOK: REAL DEVICE BLOCK

RDEVBLOK is generated by the RDEVICE macro at system generation. There is one RDEVBLOK for each real device and one for each binary synchronous line. The block contains status and device parameters applicable to I/O instruction processing. The ARIODV field of the PSA points to the first entry in the RDEVBLOK table, which is generated in contiguous storage. The VDEVREAL field of the VDEVBLOK points to a real device block. For each DASD in the system-owned list, a dummy RDEVBLOK is built to queue multiple paging requests. RDEVBLOK is found in RBLOKS copy.



SIZE

RDEVBLOK SIZE IN DOUBLEWORDS (RDEVSIZE) 17

Disp	Name	Len	Key	Description
0	RDEVADD	2		DEVICE ADDRESS IN THE CASE OF DUMMY RDEVBLOKS, THE FIRST BYTE OF THIS FIELD WILL CONTAIN X'F0'

0	RDEVSNA	2		RDEVBLOK WAS BUILT BY CCS
2	RDEVLOCK	2		DEVICE LOCK
4	RDEVSTAT	1	R*1	DEVICE STATUS (FIRST BYTE)

Values defined in RDEVSTAT

80	RDEVPEND	DEVICE PENDING OFFLINE
40	RDEVCPIO	SYNCHRONIZED CPEXBLOKS
20	RDEVDISA	DEVICE DISABLED (OFFLINE)
10	RDEVRSVD	DEVICE RESERVED
08	RDEVIRM	DEVICE IN INTENSIVE ERROR RECORDING MODE
04	RDEVNRDY	DEVICE INTERVENTION REQUIRED
02	RDEVWAII	GRAF - IOBLOK PENDING; QUEUE REQUESTS
01	RDEVDED	DEDICATED DEVICE (ATTACHED TO A USER)

5	RDEVFLAG	1	R*2	DEVICE FLAGS, DEVICE DEPENDENT

Bits defined in RDEVFLAG for DASD Units

80	RDEVSKUP	ASCENDING ORDER SEEK QUEUEING
20	RDEVSYS	USED BY SYSTEM
10	RDEVOWN	CP OWNED VOLUME
08	RDEVMOUT	VOLUME MOUNTED; NOT ATTACHED
04	RDEV333V	VOLUME DEDICATED AS 3330V
02	RDEVSEL	DEVICE SELECTED FOR MSS MOUNT
01	RDEVVMNT	MSS VOLUME MOUNTED BY CP

Bits defined in RDEVFLAG for Console Devices

80	RDEVPSUP	TERMINAL HAS PRINT SUPPRESSED
40	RDEVPREP	TERMINAL EXECUTING PREPARE COM
20	RDEVACTV	IOBLOK PENDING; QUEUE REQUEST
10	RDEVIDNT	2741 TERMINAL CODE IDENTIFIED
08	RDEVENAB	DEVICE IS ENABLED
04	RDEVHIO	NEXT INTERRUPT FROM A HALT I/O
02	RDEVDISB	DEVICE IS TO BE DISABLED
01	RDEVEPMD	370X NCP RESOURCE IN EP MODE

Bits defined in RDEVFLAG for Spooling Devices

80	RDEVDRAN	DEVICE OUTPUT DRAINED
40	RDEVTERM	DEVICE OUTPUT TERMINATED
20	RDEVISPL	SPOOLING - RSPLCTL INITIALIZING
10	RDEVSPAC	FORCE PRINTER TO SINGLE SPACE
08	RDEVRSTR	RESTART CURRENT FILE
04	RDEVBACK	BACKSPACE THE CURRENT FILE
02	RDEVSEP	PRINT/PUNCH JOB SEPARATOR
01	RDEVLOAD	UCS BUFFER VERIFIED

Bits defined in RDEVFLAG for Special Devices

80	RDEVLNCP	NETWORK CONTROL PROGRAM ACTIVE
40	RDEVLCEP	270X EMULATION PROGRAM ACTIVE
20	RDEVSLOW	370X IN BUFFER SLOWDOWN MODE
10	RDEVAUTO	AUTOMATIC DUMP/LOAD ENABLED
08	RDEVWAIT	IOBLOK PENDING; QUEUE REQUESTS
04	RDEVEPLN	EMULATOR LINES IN USE BY SYSTEM
02	RDEVRCVY	AUTO DUMP/LOAD PROCESS ACTIVE
01	RDEVTBTU	BTU TRACE REQUESTED

6	RDEVTYPC	1	R*3	DEVICE TYPE CLASS
7	RDEVTYPE	1	R*4	DEVICE TYPE

8	RDEVFIOB	4		POINTER TO FIRST IOBLOK QUEUED
C	RDEVLIOB	4		POINTER TO LAST IOBLOK QUEUED
10	RDEVCUA	4		POINTER TO RCUBLOK - INTERFACE A
14	RDEVCUB	4		POINTER TO RCUBLOK - INTERFACE B
18	RDEVQUED	8		IOBLOK QUEUED TIME - TOD CLOCK UNITS
20	RDEVIOCT	4		DEVICE I/O COUNT
24	RDEVAIOB	4		ACTIVE IOBLOK
28	RDEVUSER	4		POINTER TO VMBLOK OF DEDICATED USER
2C	RDEVATT	2		ATTACHED VIRTUAL ADDRESS
2E	RDEVCYL	2		DASD - CURRENT CYLINDER LOCATION
30	RDEVSER	6		DEVICE VOLUME SERIAL NUMBER
36	RDEVLNKS	2		DASD - NUMBER OF LINKS TO THIS DISK
38	RDEVTCTL	8		TERMINAL CONTROL BYTES
40	RDEVTMAT	4		DEVICE ATTACHED TIME - TOD CLOCK WORD 0
44	RDEVQCNT	1	R*5	NUMBER OF QUEUED IOBLOKS
45	RDEVSTA2	1	R*6	DEVICE STATUS (2ND BYTE)

Values defined in RDEVSTA2

80	RDEVUNSN	RDEVSCHD WAS ON BEFORE SENSE FOR UNSOLICITED INTERRUPT
40	RDEVDUPL	DUPL VOL MOUNTED HERE AT LAST IPL
20	RDEVNOHD	ISSUE HALT DEVICE IF OFF
10	RDEVDROP	LOGDROP/LOGHOLD INDICATED
08	RDEVALT	ALTERNATE PATH DEVICE
04	RDEVSYNC	ATTENTION DURING ACTIVE I/O
02	RDEVPURG	3800 - PURGE FILES IN ERROR
01	RETRYSW	RETRY COUNT SWITCH

NOTE: The high-order four bits of the RDEVMDL field are used by various modules to save SENSE information from an E4 SENSE, indicating if a DASD device has extended CKD CCWs implemented (e.g., 3380, 3375). The low-order four bits of RDEVMDL field are used to to indicate the device model which is returned in the last byte of Sense ID information.

46	RDEVMDL	1	R*7	DEVICE MODEL NUMBER

Values defined in RDEVMDL

C0	RDEVECKD	EXTENDED CKD FEATURE AVAILABLE
20	RDEVLOW	RUNNING WITH LOW SPEED CHANNEL
04	RDEVM004	3370 MODEL 4
00	RDEVM000	3310 or 3370 MODEL 0

47	RDEVFTR	1	R*8	DEVICE FEATURE CODE - FIRST BYTE
48	RDEVIOER	4		POINTER TO IOERBLOK FOR LAST CP ERROR

4C	RDEVCTRS	4		POINTER TO ERROR COUNTER CONTROL BLOCK
50	RDEVNAME	2		REAL DEVICE NAME
52	RDEVSTA3	1	R*9	DEVICE STATUS - THIRD BYTE

Values defined in RDEVSTA3

80	RDEVDIIP	DIAL IN PROCESS
40	RDEVPS	RDEVBLOK IS FOR LOGICAL DEVICE
20	RDEVATSW	ATTENTION SWITCH
10	RDEVMNT	DEVICE MOUNT RETRY FLAG
08	RDEVCKDX	DASD CAPABLE OF EXTENDED CKD CCWS
04	RDEVPBYP	MULTIPLE REQUESTS TO VARY SAME DEVICE
02	RDEVCC3	CC 3 DEVICE NOT AVAILABLE
01	RDEVSTMD	T8809 SET MODE ISSUED

53	RDEVPCNT	1	R*10	DISAB/ENAB/PREP RETRY COUNT
54	RDEVIOBL	4		IOBLOK QUEUE LOCK
58	RDEVRDC	4		POINTER TO RDCBLOK (FBA ONLY)
58	RDEVWTH	2		
5A	RDEVHT	2		
5C	RDEVADVF	001	R*11	3278 ADVANCED FEATURE FLAGS

Values defined in RDEVADVF

80	RDEVECOL	DEVICE HAS EXTENDED COLOR
40	RDEVEHLT	DEVICE HAS EXTENDED HIGHLIGHTING
20	RDEVPSS	DEVICE HAS PROGRAMMABLE SYMBOL SETS
10	RDEVQRY	ENABLE GENERAL QUERY IN PROGRESS
08	RDEV741D	CONTROLLER IS 3274 MODEL 1D
04	RDEVAINH	READ NO DISPLAY HAS BEEN ISSUED
02	RDEVWSF	WSF HAS BEEN ISSUED
01	RDEV14AD	14-BIT ADDRESSING

5D	RDEVFTR2	1	R*12	DEVICE FEATURE CODE - SECOND BYTE
5E	RDEVPROC	2		PROCESSOR STARTING CURRENT I/O
60	RDEVSTA4	1	R*13	DEV STATUS - I/O SUPERVISOR ONLY

Values defined in RDEVSTA4

80	RDEVBUZY	DEVICE BUSY
40	RDEVSCHD	IOB SCHEDULED ON DEVICE
20	RDEVRSTA	ACTIVE DEVICE IS BEING RESET
10	RDEVBZCH	DEVICE IS BUSY WITH THE CHANNEL
08	RDEVCNTC	CONTINGENT CONNECTION PRESENT
04	RDEVFOFF	DEV FORCED OFF BY ERROR RECOVERY
02	RDEVRRES	RESERVE FOUND IN CHANNEL PROGRAM
01	RDEVMID	MISSING INTERRUPT HANDLER BIT

```
61   RDEVPTHS   1 R*14 DEVICE PATH STATUS FLAGS

  Bits defined in RDEVPTHS - RDEVPTH1 through RDEVPTH4 describe
  paths from RDEVCUA. RDEVPTH5 through RDEVPTH8 describe paths
  from RDEVCUB

  F0 RDEVAOF            PATH MASK FOR ALL PATHS FROM CUA
  80 RDEVPTH1           PATH FROM CUA TO CHA OFFLINE
  40 RDEVPTH2           PATH FROM CUA TO CHB OFFLINE
  20 RDEVPTH3           PATH FROM CUA TO CHC OFFLINE
  10 RDEVPTH4           PATH FROM CUA TO CHD OFFLINE
  0F RDEVBOF            PATH MASK FOR ALL PATHS FROM CUB
  08 RDEVPTH5           PATH FROM CUB TO CHA OFFLINE
  04 RDEVPTH6           PATH FROM CUB TO CHB OFFLINE
  02 RDEVPTH7           PATH FROM CUB TO CHC OFFLINE
  01 RDEVPTH8           PATH FROM CUB TO CHD OFFLINE

62   RDEVOFF    1 R*15 CURRENTLY OFFLINE PATH

63   RDEVSCRL   1 R*16 3101 SCROLLING VALUE

64   RDEVCSW    4      LAST INTERRUPT CSW STATUS

68   RDEVQIOB   4      ADDRESS OF IOB QUEUED OFF OF CH OR CU

6C   RDEVCPEX   4      SYNCHRONIZED CPEXBLOK QUEUE

70   RDEVFTR3   1 R*17 DEVICE FEATURE CODE - BYTE 3

  Values defined in RDEVFTR3

  08 RDEVCU11           3880 MODEL 11 STORAGE CONTROL
  04 RDEVCU2            3880 MODEL 21

71   RDEVSTA5   1 R*18 DEVICE STATUS - BYTE 5

  Values defined in RDEVSTA5

  80 RDEVCUP            3880 PREFERRED PAGING DEVICE
  40 RDEVPPAG           3880 PAGING DEVICE ADDRESS
  20 RDEVERR            LOST CONTROL IN DMKGRF
  10 RDEVASGN           3480 DEVICE ASSIGNED TO CP
  08 RDEVREW            3480 DEVICE UNLOADED
  04 RDEVUNF            UNABLE TO UNASSIGN 3480 FROM CP
  02 RDEVSENS           SENSE QUEUED ON CONTROL UNIT
  01 RDEVNATH           PROHIBIT ATTACH AS A SYSTEM DEVICE

72   RDEVSTA6   1 R*19 DEVICE STATUS - BYTE 6

  Values defined in RDEVSTA6

  40 REDEVTALY          ATTACH THIS RDEVBLOK
  20 RDEVLTRM           TERMINATION BY DMKUSO
  10 RDEVLOGC           LOGO HAS BEEN CLEARED
  04 RDEVCNDK           DEVICE IS ON A 3880 13/23 CU
  02 RDEVSDR            SDR RECORDING IN PROGRESS
  01 RDEVCFLT           3380(MSS) CYLINDERS FAULT

73   RDEVRSV    1 R*20 RESERVED FOR IBM USE

74   RDEVPRDV   4      POINTER TO PAGE ADDRESS REDEVBLOK

74   RDEVCKP    4      CURRENT CYLINDER LOCATION

78   RDEVPT     1 R*21 NUMBER OF SCREEN PARTITIONS
```

```
  79   RDEVEWO    1 R*22 ERASE WRITE OPTION
  7A   RDEVLLEN   2      DEVICE LINE LENGTH
  7C   RDEVBPAG   4      POINTER TO BASE REDVBLOK
  80   RDEVPIOB   4      PASSBACK FIELD FOR PMA IOBLOKS
  84   RDEVQREP   4      WSF EVERY REPLY DATA BUFFER ADDRESS
  88   RDEVWIOB   4      WIOBBLOK BEING PROCESSED BY DMKGRE
  8C   RDEVSTA7   1 R*23 DEVICE STATUS - BYTE 7
    Values defined in RDEVSTA7
    80 RDEVMD13          THIS DEVICE ON A 3880-13 CU
| 8D   RDEVASTB   1 R*24 CURRENT VALUE OF ASCIITBL OPTION
|   Values defined in RDEVASTB
    02 RDEVAVM2          ASCII TRANSLATE TABLES - VM2 (1980)
    01 RDEVAVM1          ASCII TRANSLATE TABLES - VM1 (1977)
  8E   RDEVRSV2   2      RESERVED FOR IBM USE

               FOR CP-OWNED DEVICES
  28   RDEVALLN   4      ANCHOR FOR ALOCBLOK CHAIN FOR DEVICE
  2C   RDEVCODE   2      DEVICE CODE - SYSOWNED INDEX

               FOR DASD DEVICES
  38   RDEVQBSY   4      POINTER TO DEVICE END IOBLOK FOR SPMODE

               FOR GRAPHIC DEVICES
  2E   RDEVCORD   1      NEXT SCREEN OUTPUT LINE NUMBER
  30   RDEVSNRB   4      ADDRESS OF SNA RESOURCE BLOCK
  34   RDEVTMCD   1      TERMINAL CODE
    Values defined in RDEVTMCD
    20 RDEVTEXT          3270 TEXT CHARACTER SET
    18 RDEVAPLO          ASCII/APL 'SHIFTED OUT'
    14 RDEVAPLI          ASCII/APL 'SHIFTED IN'
    10 RDEVUSC8          ASCII-8 LEVEL
    0C RDEVAPLC          APL CORRESPONDENCE
    08 RDEVAPLP          APL PTTC/EBCD
    04 RDEVCORR          CORRESPONDENCE
    00 RDEVPTTC          PTTC/EBCD
  35   RDEVTTYB   1      TTY DEVICE FLAGS
    Values defined in RDEVTTYB
```

80	RDEVNOCR		TTY - LAST WRITE WAS NOAUTO CR
40	RDEVNDLF		TTY - A LINE FEED IS REQUIRED

FOR SPOOLING UNIT RECORD DEVICES

18	RDEVSPL	4	POINTER TO ACTIVE RSPLCTL BLOCK
1C	RDEVCLAS	4	DEVICE CLASS(ES)
28	RDEVDELP	4	ANCHOR FOR DELAY PURGE QUEUE
2C	RDEVCURP	1	CURRENT PAGE LENGTH IN HALF-INCHES
2D	RDEVPRFG	1	FLAG BYTE

Values defined in RDEVPRFG

80	RDEVLDBG	PRINT VIRTUAL 3800 SPOOL FILES WITH LOAD CCW
40	RDEVLDMD	PRINT ANY VIRTUAL 3800 SPOOL FILES
20	RDEVDFCB	FORCE THE DEFAULT FCB FOR FILES
10	RDEVCFCB	CHECK AFTER FILES WITH LOAD FCB
08	RDEVALGN	'LOAD FCB' CCW SENT TO PRINTER
04	RDEVSEPF	CHECK FOR SEP PAGES FOR 3800

2E	RDEVMAXP	1	MAXIMUM NUMBER OF ENTRIES IN DELAY PURGE QUEUE
2F	RDEVFSEP	1	FCB FOR SEPARATOR PAGE (6, 8, OR 12)
30	RDEVXSEP	4	CHAR ARRANGEMENT TBL FOR SEPARATOR PAGE
34	RDEVEXTN	4	POINTER TO THE EXTENSION
38	RDEVIMAG	8	NAME OF CURRENT IMAGE LIBRARY
40	RDEVOVLY	004	NAME OF CURRENT FORMS OVERLAY

FOR TERMINAL DEVICES

18	RDEVCON	4	POINTER TO CONTASK LIST
1C	RDEVAIRA	4	ATTENTION INTERRUPT RETURN ADDRESS
38	RDEVRCNT	2	START-STOP LINE RETRY COUNT

3A	RDEVTFLG	1	ADDITIONAL TERMINAL FLAGS

Bits defined in RDEVTFLG for Terminal Devices

80	RDEVLOG	LOGON PROCESS HAS BEEN INITIATED
40	RDEVREST	TERMINAL IN RESET PROCESS
20	RDEVATOF	SUPPRESS ATTENTION SIGNAL
10	RDEVTAPL	TRANSLATE TO/FROM APL
08	RDEV3101	TTY DEVICE IS 3101
04	RDEVPCHG	TTY PROMPT WAS CHANGED
01	RDEVNOLF	DO NOT LINEFEED OUTPUT

Bits defined in RDEVTFLG for Graphics Devices

80	RDEVLOG	LOGON PROCESS HAS BEEN INITIATED
40	RDEVMORE	SCREEN FULL, MORE DATA WAITING
20	RDEVRUN	SCREEN IN RUNNING STATUS
10	RDEVREAD	READ PENDING FOR SCREEN INPUT
08	RDEVCPNA	LAST INPUT NOT ACCEPTED
04	RDEVTRQ	TIMER REQUEST PENDING
02	RDEVCTL	CNTRL FUNCTION INTERRUPT PENDING
01	RDEVHOLD	SCREEN FULL, HOLD STATUS

3B	RDEVGRTY	1	DISPLAY ALTERNATE SCREEN SIZE INDEX
3C	RDEVADFF	1	DEVICE FEATURE FLAGS

Values defined in RDEVADFF

20	RDEV12B	12-BIT ADDRESSING
40	RDEV14B	14-BIT ADDRESSING

3D	RDEVATNC	1	DEVICE ATTENTION COUNT
3E	RDEVBASE	2	370X BASE ADDRESS FOR EMULATOR LINE
47	RDEVSADN	1	TERMINAL SET-ADDRESS NUMBER
	FOR REAL 3705 COMMUNICATIONS CONTROLLER		
1C	RDEVEPDV	4	START OF FREE RDEVBLOK LIST FOR EP LINES
2E	RDEVMAX	2	HIGHEST VALID NCP RESOURCE NAME
30	RDEVNCP	8	REFERENCE NAME OF ACTIVE 3705 NCP
38	RDEVNICL	4	POINTER TO NETWORK CONTROL LIST
3C	RDEVCKPT	4	POINTER TO CKPBLOK FOR RE-ENABLE
	FOR 3270 REMOTE SUPPORT		
30	RDEVBSC	4	POINTER TO BINARY SYNCHRONOUS CONTROL BLOCK
30	RDEVSNRB	4	POINTER TO SNA RESOURCE BLOCK (SNARBLOK)
34	RDEVPDLY	4	POLL DELAY TIMER INTERVAL
FOR SPOOLING TO TAPE			
30	RDEVSPT	4	POINTER TO SPOOL FILES TO TAPE BLOCK

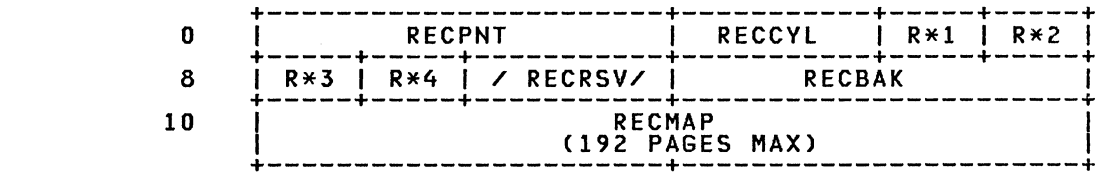
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
RDEVACTV 0005 20    RDEVDIIP 0046 80    RDEVNDLF 0035 40    RDEVRUN  003A 20
RDEVADD  0000 ..    RDEVDISA 0004 20    RDEVNICL 0038 ..    RDEVSADN 0047 ..
RDEVADVF 005C ..    RDEVDISB 0005 02    RDEVNOCR 0035 80    RDEVSCHD 0060 40
RDEVAINH 005C 04    RDEVDRAN 0005 80    RDEVNOHD 0045 20    RDEVSCRL 0063 ..
RDEVAIOB 0024 ..    RDEVDROP 0045 10    RDEVNOLF 003A 01    RDEVSEL  0005 02
RDEVAIRA 001C ..    RDEVDUPL 0045 40    RDEVNRDY 0004 04    RDEVSENS 0071 02
RDEVALGN 002D 08    RDEVECKD 0046 C0    RDEVOFF  0062 ..    RDEVSEP  0005 02
RDEVALLN 0028 ..    RDEVECOL 005C 80    RDEVOVLY 0040 ..    RDEVSER  0030 ..
RDEVALT  0045 08    RDEVEHLT 005C 40    RDEVOWN  0005 10    RDEVSIZE 0000 0E
RDEVAOF  0061 F0    RDEVENAB 0005 08    RDEVPAGE 0038 ..    RDEVSKUP 0005 80
RDEVAPLC 0034 0C    RDEVEPDV 001C ..    RDEVPBYP 0046 04    RDEVSLOW 0005 20
RDEVAPLI 0034 14    RDEVEPLN 0005 04    RDEVPCHG 003A 04    RDEVSNA  0000 ..
RDEVAPLO 0034 18    RDEVEPMD 0005 01    RDEVPCNT 0053 ..    RDEVSNRB 0030 ..
RDEVAPLP 0034 08    RDEVEWO  0079 ..    RDEVPDLY 0034 ..    RDEVSPAC 0005 10
RDEVASTB 008D ..    RDEVEXTN 0034 ..    RDEVPEND 0004 80    RDEVSPL  0018 ..
RDEVATNC 003D ..    RDEVFIOB 0008 ..    RDEVPIOB 0080 ..    RDEVSPT  0030 ..
RDEVATOF 003A 20    RDEVFLAG 0005 ..    RDEVPPAG 0071 04    RDEVSTAT 0004 ..
RDEVATSW 0046 20    RDEVFOFF 0060 04    RDEVPRDV 0074 ..    RDEVSTA2 0045 ..
RDEVATT  002C ..    RDEVFSEP 002F ..    RDEVPREP 0005 40    RDEVSTA3 0052 ..
RDEVAUTO 0005 10    RDEVFTR  0047 ..    RDEVPRFG 002D ..    RDEVSTA4 0060 ..
RDEVBACK 0005 04    RDEVFTR2 005D ..    RDEVPROC 005E ..    RDEVSTA5 0071 ..
RDEVBASE 003E ..    RDEVFTR3 0070 ..    RDEVPS   0046 40    RDEVSTA6 0072 ..
RDEVBOF  0061 0F    RDEVSNRB 0030 ..    RDEVPSS  005C 20    RDEVSTA7 008C ..
RDEVBPAG 007C ..    RDEVGRTY 003B ..    RDEVPSUP 0005 80    RDEVSTMD 0046 01
RDEVBSC  0030 ..    RDEVHIO  0005 04    RDEVPT   0078 ..    RDEVSYNC 0045 04
RDEVBUZY 0060 80    RDEVHOLD 003A 01    RDEVPTHS 0061 ..    RDEVSYS  0005 20
RDEVBZCH 0060 10    RDEVHT   005A ..    RDEVPTH1 0061 80    RDEVTAPL 0031 10
RDEVCC3  0046 02    RDEVIDNT 0005 10    RDEVPTH2 0061 40    RDEVTBTU 0005 01
RDEVCFCB 002D 10    RDEVIMAG 0038 ..    RDEVPTH3 0061 20    RDEVTCTL 0038 ..
RDEVCKDX 0046 08    RDEVIOBL 0054 ..    RDEVPTH4 0061 10    RDEVTERM 0005 40
RDEVCKP  0074 ..    RDEVIOCT 0020 ..    RDEVPTH5 0061 08    RDEVTEXT 0034 20
RDEVCKPT 003C ..    RDEVIOER 0048 ..    RDEVPTH6 0061 04    RDEVTFLG 003A ..
RDEVCLAS 001C ..    RDEVIRM  0004 08    RDEVPTH7 0061 02    RDEVTMAT 0040 ..
RDEVCNTC 0060 08    RDEVISPL 0005 20    RDEVPTH8 0061 01    RDEVTMCD 0034 ..
RDEVCODE 002C ..    RDEVLCEP 0005 40    RDEVPTTC 0034 00    RDEVTRQ  003A 04
RDEVCON  0018 ..    RDEVLDBG 002D 80    RDEVPURG 0045 02    RDEVTTYB 0035 ..
RDEVCORD 002E ..    RDEVLDMD 002D 40    RDEVQBSY 0038 ..    RDEVTYPC 0006 ..
RDEVCORR 0034 04    RDEVLIOB 000C ..    RDEVQCNT 0044 ..    RDEVTYPE 0007 ..
RDEVCPEX 006C ..    RDEVLLEN 007A ..    RDEVQIOB 0068 ..    RDEVUSC8 0034 10
RDEVCPIO 0004 40    RDEVLNCP 0005 80    RDEVQREP 0084 ..    RDEVUSER 0028 ..
RDEVCPNA 003A 08    RDEVLNKS 0036 ..    RDEVQRY  005C 10    RDEVUNSN 0045 80
RDEVCSW  0064 ..    RDEVLOAD 0005 01    RDEVQUED 0018 ..    RDEVVMNT 0005 01
RDEVCTL  003A 02    RDEVLOCK 0002 ..    RDEVRCNT 0038 ..    RDEVWAII 0004 02
RDEVCTRS 004C ..    RDEVLOG  003A 80    RDEVRCVY 0005 02    RDEVWAIT 0005 08
RDEVCUA  0010 ..    RDEVLOW  0046 20    RDEVRDC  0058 ..    RDEVWIOB 0088 ..
RDEVCUB  0014 ..    RDEVLTRM 0072 04    RDEVREAD 003A 10    RDEVWSF  005C 02
RDEVCUP  0071 08    RDEVMAX  002E ..    RDEVRECS 003C ..    RDEVWTH  0058 ..
RDEVCURP 002C ..    RDEVMAXP 002E ..    RDEVREST 003A 40    RDEVXSEP 0030 ..
RDEVCU11 0070 08    RDEVMDL  0046 ..    RDEVRRES 0060 02    RDEV12B  003C 20
RDEVCU21 0070 04    RDEVMID  0060 01    RDEVRSTA 0060 20    RDEV14B  003C 40
RDEVCYL  002E ..    RDEVMNT  0052 10    RDEVRSTR 0005 08    RDEV3101 0031 08
RDEVDCTL 003C ..    RDEVMORE 003A 40    RDEVRSVD 0004 10    RDEV333V 0005 04
RDEVDED  0004 01    RDEVMOUT 0005 08    RDEVRSV  0073 ..    RDEV741D 005C 08
RDEVDELP 0028 ..    RDEVNAME 0050 ..    RDEVRSV2 008E ..    RETRYSW  0045 01
RDEVDFCB 002D 20    RDEVNCP  0030 ..
```

RECBLOK: DASD PAGE (SLOT) ALLOCATION BLOCK

RECBLOK maintains the correlation of DASD storage pages to a specific cylinder location. Also maintained is a bit map to indicate the page slots available for data page storage. The RDEVRECS field and the RDEVPAGE field of the RDEVBLOK point to RECBLOK. RECBLOK is found in ALLOC copy.



SIZE

RECBLOK SIZE IN DOUBLEWORDS (RECSIZE) 5

Disp	Name	Len	Key	Description
0	RECPNT	4		ADDRESS OF NEXT RECBLOK ON CHAIN
4	RECCYL	2		CYLINDER ADDRESS FOR PAGES IN THIS BLOCK
6	RECUSED	1	R*1	NUMBER OF PAGES CURRENTLY IN USE
7	RECMAX	1	R*2	MAXIMUM NUMBER OF PAGES AVAILABLE
8	RECFLG	1	R*3	IDENTIFIES USE/TYPE OF CYLINDER
	Values defined in RECFLG			
	80 RECFH			FIXED HEAD CYLINDER
	40 RECPAGE			PAGING CYLINDER
	10 RECDUMP			DUMP DASD CYLINDER
	08 RECSKIP			SKIP RECBLOK CHECKPOINTING
	01 RECFULL			ALL SLOTS ALLOCATED
9	RECFLG1	1	R*4	IDENTIFIES USE OF RECBLOK FOR
	Values defined in RECFLG1			
	80 RECDISK			MH TYPE DEVICE
	40 RECDRUM			FH TYPE DEVICE
	10 RECPMH			PREF MH TYPE DEVICE
C	RECBAK	4		POINTER TO PREVIOUS RECBLOK ON CH
10	RECMAP	24		SEE PROGRAMMING NOTE
	Values defined in RECMAP			
	08 RECFSZ			COMPATIBILITY WITH HPO 3.2

PROGRAMMING NOTES

If the RECBLOK is for a swap cylinder, each bit in the

RECMAP represents a swap set.

Although the size of the RECMAP is fixed, the maximum number of pages available on a cylinder is device-dependent. Any pages not physically present on a cylinder will have their corresponding bits set to one.

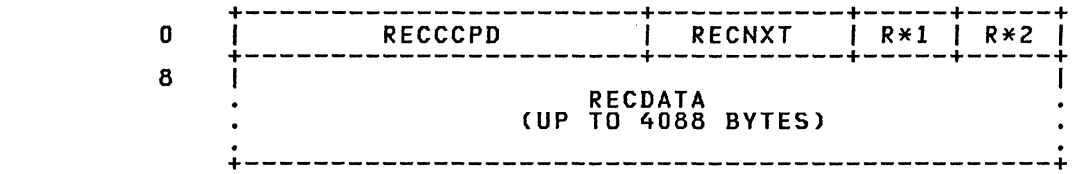
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

RECBAK	000C	..	RECFH	0008	80	RECMAP	0010	..	RECPNT	0000	..
RECCYL	0004	..	RECFLG	0008	..	RECMAX	0007	..	RECSIZE	....	5
RECDISK	0009	80	RECFLG1	0009	..	RECPAGE	0008	40	RECSKIP	0008	08
RECDRUM	0009	40	RECFSZ	0010	08	RECPMH	0009	10	RECUSED	0006	..
RECDUMP	0008	10	RECFULL	0008	01						

RECPAG: ERROR RECORDING PAGE RECORD

RECPAG retains up to 4K bytes of error recording data for eventual placement on the specified error recording cylinder. RECPAG is found in RECPAG copy.



SIZE

SIZE OF PAGE IN BYTES (RECPAGSZ) 1000

Disp	Name	Len	Key	Description
0	RECCCPD	4		CCPD OF THE RECORD
4	RECNXT	2		DISPLACEMENT TO NEXT ERROR RECORD
6	RECFLAG1	1	R*1	RECORD USAGE FLAGS
	Values defined in RECFLAG1			
	80 RECPAGIU			PAGE CONTAINS VALID DATA
	40 RECPAGFR			PAGE IS CLEARED
	20 RECPAGFL			PAGE IS FULL OF ERROR RECORDS
	10 RECPAGER			NEXT PAGE IS UNREADABLE (I/O ERROR)
	08 RECPAGFA			FRAME RECORDS EXIST ON THIS PAGE
7	RECFLAG2	1	R*2	RECORD FORMAT FLAG
	Values defined in RECFLAG2			
	00 RECPAGDN			CYLINDER FORMATTED
	80 RECPAGFM			SET IN PAGE ONE OF A RECORDING CYLINDER
8	RECDATA	4088		DATA AREA

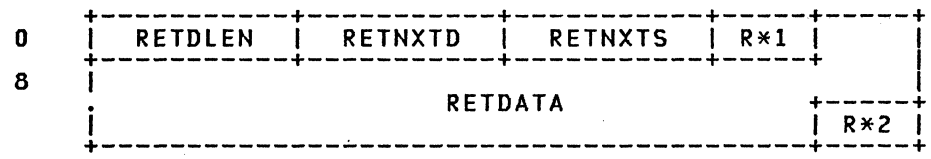
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

RECCCPD	0000	RECNXT	0004	RECPAGFA	0006 08	RECPAGFR	0006 40
RECDATA	0008	RECPAGDN	0007 00	RECPAGFL	0006 20	RECPAGIU	0006 80
RECFLAG1	0006	RECPAGER	0006 10	RECPAGFM	0007 80	RECPAGSZ	0000 1000
RECFLAG2	0007						

RETBUF: RETRIEVE BUFFER

RETBUF is used to store the input lines used with the 3270 program function (PF) key retrieve function. The buffer is allocated for users who have a PF set to retrieve; however, the user must not be disconnected. The buffer address is kept in the VMRETBUF field. Input lines are packed in the buffer in the order they are entered. Each line is preceded and followed by a one-byte field containing the length of the line. The RETNXTD field contains the offset of the field to be displayed, while the RETNXTS field contains the offset of any unused area at the end of the buffer, where the next input line can be stored. The RETDATA field must be longer than the maximum length input line, but not more than 254 bytes. The VMRETBUF field in VMBLOK points to RETBUF. RETBUF is found in RETBUF copy.



SIZE

RETBUF SIZE FOR 132-WIDE SCREENS (RETL132) 20
RETBUF SIZE FOR 80-WIDE SCREENS (RETL80) 14

Disp	Name	Len	Key	Description
0	RETDLEN	2		LENGTH OF BUFFER IN DOUBLEWORDS
2	RETNXTD	2		OFFSET TO NEXT LINE TO DISPLAY
4	RETNXTS	2		OFFSET TO START OF UNUSED AREA
6	RETLEN1	1	R*1	LENGTH FIELD PRECEEDING DATA
7	RETDATA	248		BUFFER AREA (TWO POSSIBLE SIZES)
FF	RETLEN2	1	R*2	LENGTH FIELD AFTER DATA

Values defined in RETLEN2

20	RETL132	RETBUF SIZE FOR 132-WIDE SCREENS
14	RETL80	RETBUF SIZE FOR 80-WIDE SCREENS

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

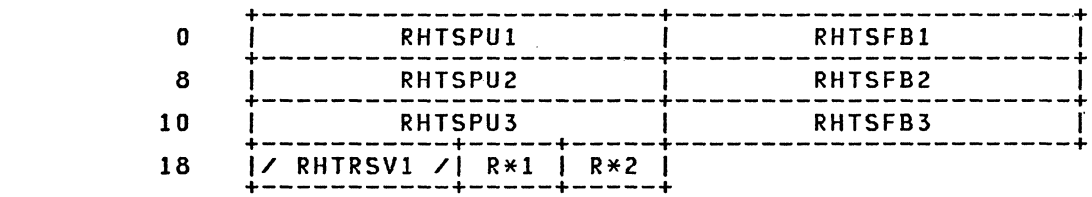
RETDATA	0007 ..	RETLEN1	0006 ..	RETL132	00FF 20	RETNXTD	0002 ..
RETDLEN	0000 ..	RETLEN2	00FF ..	RETL80	00FF 14	RETNXTS	0004 ..

RHTBLOK: READER HASH TABLE

RHTBLOK contains the SYSSPOOL virtual address of a virtual machine's SPUBLOK. At shutdown time, the reader hash table is saved in the warm start cylinders. During a warm start, it is restored from the warm start cylinders. During a checkpoint start, the SPUBLOKs are rebuilt. This table requires 28 pages and is built in DMKSYS at entry point DMKSYSHT. Each entry consists of six pointers to three virtual machines' first reader SFBLOK and SPUBLOK followed by a pointer to the overflow extension for this hash position. RHTVRFY is built at the entry point DMKSYSWI at the end of the 28th page of the hash table. RHTBLOK is found in SPOOL copy.

SIZE

LENGTH OF RHTBLOK (RHTLEN) 1C



Disp	Name	Len	Key	Description
0	RHTSPU1	4		POINTER TO FIRST VM'S SPUBLOK
0	RHTVRFY	4		READER HASH TABLE VERIFICATION FIELD
4	RHTSFB1	4		POINTER TO FIRST VM'S FIRST SFBLOK
4	RHTECNT	1		NUMBER OF PAGES IN RDR HASH TABLE EXTENSION
5	RHTVIRT	3		HIGHEST USED VIRTUAL ADDRESS IN SYSSPOOL
8	RHTSPU2	4		POINTER TO SECOND VM'S SPUBLOK
8	RHTFLAG	1		FLAG BYTE
	Values defined in RHTFLAG			
80	RHTSPRF			INCOMPLETE RECOVERY HAS OCCURRED
C	RHTSFB2	4		POINTER TO SECOND VM'S FIRST SFBLOK
10	RHTSPU3	4		POINTER TO THIRD VM'S SPUBLOK
14	RHTSFB3	4		POINTER TO THIRD VM'S FIRST SFBLOK
18	RHTRSV1	2		RESERVED FOR IBM USE
1A	RHTPAGNO	1	R*1	RELATIVE HASH CLASH EXTENSION PAGE
1B	RHTINDEX	1	R*2	ENTRY NUMBER IN THE EXTENSION PAGE

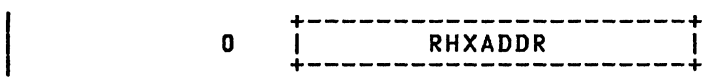
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

RHTECNT	0004	..	RHTNUMEN	....	FFD	RHTSFB2	000C	..	RHTSPU2	0008	..
RHTFLAG	0008	..	RHTPAGNO	001A	..	RHTSFB3	0014	..	RHTSPU3	0010	..
RHTINDEX	001B	..	RHTRSRV	....	01	RHTSPRF	0008	80	RHTVIRT	0005	..
RHTLEN	....	1C	RHTSFB1	0004	..	RHTSPU1	0000	..	RHTVRFY	0000	..

RHXTABLE: READER HASH EXTENSION TABLE

RHXTABLE contains a list of hash table extension page addresses. This table is associated with the RHTPAGNO which is contained in RHTBLOK. It consists of a list of consecutive fullword real addresses of hash extension pages. The fullword at DMKSYSHE points to this list. The entry after the last valid address is a fullword of FFs. RHXTABLE is found in SPOOL copy.



Disp	Name	Len	Key	Description
0	RHXADDR	4		REAL ADDRESS OF HASH TABLE EXTENSION PAGE

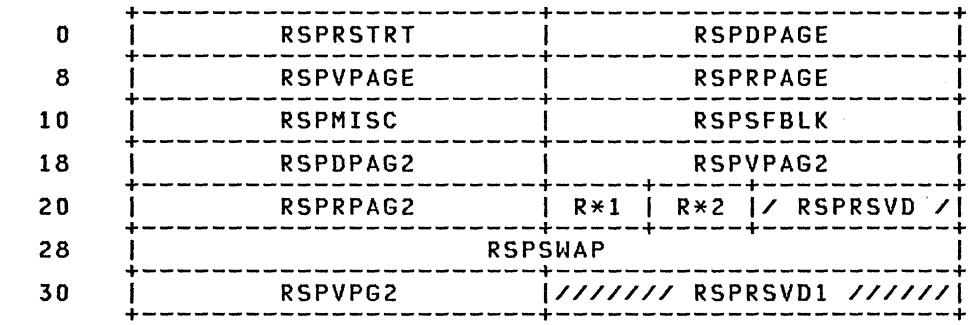
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

RHXADDR 0000 ..

RSPLCTL: REAL SPOOLING CONTROL BLOCK

RSPLCTL is used in conjunction with SFBLOK for processing closed spool files. The RDEVSPL field of RDEVBLOK points to RSPLCTL. RSPLCTL is found in SPOOL copy.



SIZE

RSPLCTL SIZE IN DOUBLEWORDS (RSPSIZE) 07

Disp	Name	Len	Key	Description
0	RSPRSTRT	4		RESTART CAW - CCW ADDRESS
4	RSPDPAGE	4		DASD LOCATION (DCHR) OF CURRENT PAGE BUFFER
8	RSPVPAGE	4		VIRTUAL ADDRESS OF PAGE BUFFER
C	RSPRPAGE	4		REAL ADDRESS OF PAGE BUFFER
10	RSPMISC	4		USE VARIES ACCORDING TO CALLER
14	RSPSFBLK	4		POINTER TO SFBLOK FOR FILE
18	RSPDPAG2	4		2ND PAGE BUFFER DASD LOCATION (IF ANY)
1C	RSPVPAG2	4		2ND PAGE BUFFER VIRTUAL ADDRESS (IF ANY)
20	RSPRPAG2	4		2ND PAGE BUFFER REAL ADDRESS (IF ANY)
24	RSPFLAG1	1	R*1	FLAG BYTE

Values defined in RSPFLAG1

80	RSPBF1IO	I/O PENDING ON BUFFER 1
40	RSPBF2IO	I/O PENDING ON BUFFER 2
20	RSPBF1VL	BUFFER 1 IS FULL OF DATA TO PRINT
10	RSPBF2VL	BUFFER 2 IS FULL OF DATA TO PRINT
08	RSPBF1DC	DATA CHAIN IN BUFFER 1
04	RSPBF2DC	DATA CHAIN IN BUFFER 2
01	RSPSEP	FILE BEING PRINTED WITH SEPARATORS

```
  25    RSPFLAG2    1 R*2  FLAG BYTE

    Values defined in RSPFLAG2

    80 RSPCLPRT           CLEAR PRINTER HAS BEEN ISSUED
    40 RSPIMIDL           PRINT SHOULD GO IMMEDIATELY IDLE
    20 RSPSFLOK           SFB IN USE OR IOB SCHEDULED
    08 RSPERR             ERROR ENCOUNTERED ON PAGE WRITE

  26    RSPRSVD     2      RESERVED FOR IBM USE

  28    RSPSWAP     8      DUMMY SWAPTABLE ENTRY

  30    RSPVPG2     4      SECOND VIRTUAL BUFFER ADDRESS

  34    RSPRSVD1    4      RESERVED FOR IBM USE
```

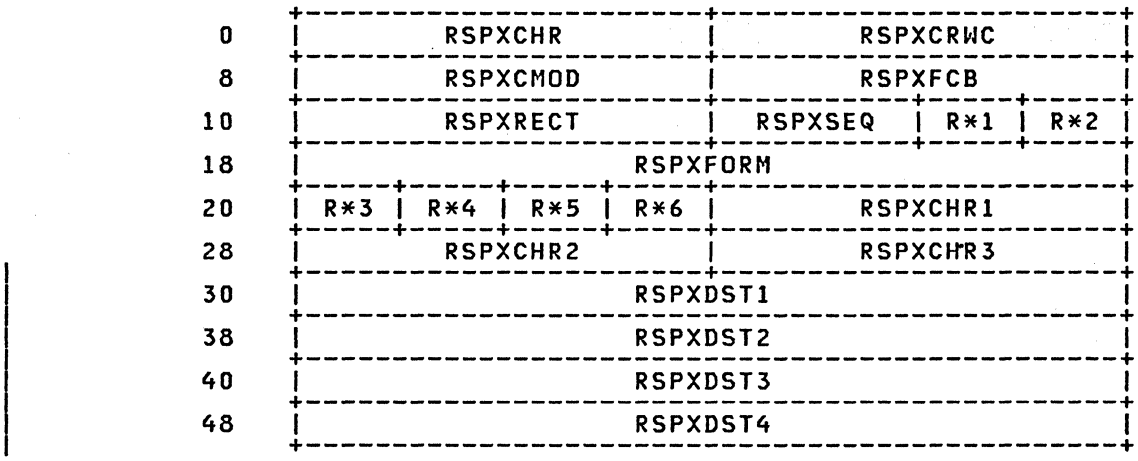
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
RSPBF1DC 0024 08    RSPDPAGE 0004       RSPRPAGE 000C       RSPSFLOK 0025 20
RSPBF1IO 0024 80    RSPDPAG2 0018       RSPRPAG2 0020       RSPSIZE  0000 07
RSPBF1VL 0024 20    RSPERR   0025 08    RSPRSTRT 0000       RSPSWAP  0028
RSPBF2DC 0024 04    RSPFLAG1 0024       RSPRSVD  0026       RSPVPAGE 0008
RSPBF2IO 0024 40    RSPFLAG2 0025       RSPRSVD1 0034       RSPVPAG2 001C
RSPBF2VL 0024 10    RSPIMIDL 0025 40    RSPSEP   0024 01    RSPVPG2  0030
RSPCLPRT 0025 80    RSPMISC  0010       RSPSFBLK 0014
```

RSPXBLOK: REAL DEVICE EXTENSION BLOCK

RSPXBLOK is used with the RDEVBLOK to accommodate the 3800 requirements. The RDEVEXTN field in RDEVBLOK points to RSPXBLOK. RSPXBLOK is found in RBLOKS copy.



SIZE

RSPXBLOK SIZE IN DOUBLEWORDS (RSPXSIZE) A

Disp	Name	Len	Key	Description
0	RSPXCHR	4		CHAR ARRANGEMENT TABLE IN 3800
4	RSPXCRWC	4		CURRENT CONTENTS OF WCGMS
8	RSPXCMOD	4		COPY MODIFICATION TABLE IN 3800
C	RSPXFCB	4		FCB NOW IN PRINTER DEVICE
10	RSPXRECT	4		NUMBER OF RECORDS OUTPUT
14	RSPXSEQ	2		SEQUENCE NUMBER OF FILE
16	RSPXFLAG	1	R*1	FLAG BYTE

Values defined in RSPXFLAG

80	RSPXAUTO	AUTOMATIC FORMS CHANGE MODE
40	RSPXFPND	FORMS MOUNT PENDING (AUTO)
20	RSPXFMNT	FORMS MOUNT SATISFIED
10	RSPXSETU	SETUP MODE IS IN EFFECT
08	RSPXSFIL	DOING SETUP FOR THIS FILE
04	RSPXPMNT	PUNCH MOUNT PENDING (NOSEP)
02	RSPXFOLD	FOLD ISSUED VIA LOADBUF
01	RSPXFILE	FILE SELECTED IN DMKRSP

17	RSPXINDX	1	R*2	STORE INDEX FOR FCB RELOAD

```
  18    RSPXFORM    8        FORM NUMBER FOR DEVICE

  20    RSPXMCHR    1 R*3    COPY MODIFICATION TRANSLATION NUMBER

  21    RSPXVTRC    1 R*4    VALID TRANSLATIONS MASK

    Values defined in RSPXVTRC

    80 RSPXISEL              INVALID SELECT TRANS DONE
    10 RSPXNOPL              NOOP'D LOAD CCWS
    08 RSPXTR3V              TRANS CODE 3 IS VALID
    04 RSPXTR2V              TRANS CODE 2 IS VALID
    02 RSPXTR1V              TRANS CODE 1 IS VALID
    01 RSPXTR0V              TRANS CODE 0 IS VALID

  22    RSPXOTRC    1 R*5    ORIGINAL TRANSLATIONS MASK

  23    RSPXNTRC    1 R*6    NEW VALID TRANS MASK

  24    RSPXCHR1    4        CHAR ARR TBL 1 NOW IN 3800

  28    RSPXCHR2    4        CHAR ARR TBL 2 NOW IN 3800

  2C    RSPXCHR3    4        CHAR ARR TBL 3 NOW IN 3800

  30    RSPXDEST   32        4 DESTINATIONS

| 30    RSPXDST1    8        DESTINATION 1

  38    RSPXDST2    8        DESTINATION 2

  40    RSPXDST3    8        DESTINATION 3

  48    RSPXDST4    8        DESTINATION 4
```

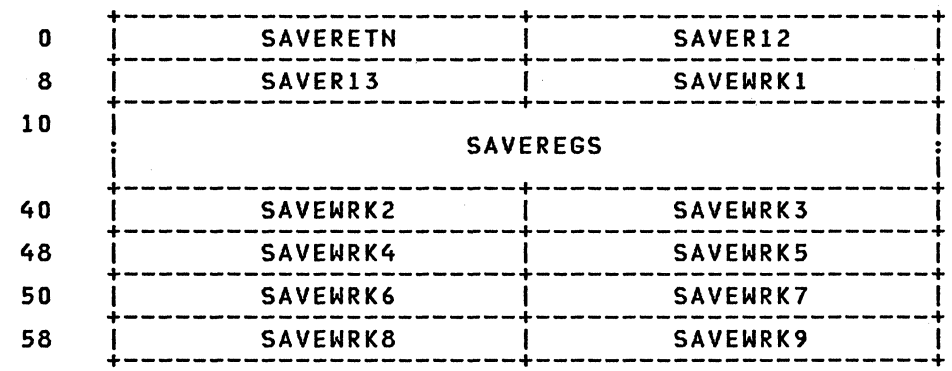
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
RSPXAUTO 0016  80  | RSPXDST2 0038  ..    RSPXFPND 0016  40    RSPXSEQ  0014  ..
RSPXCHR  0000  ..  | RSPXDST3 0040  ..    RSPXINDX 0017  ..    RSPXSETU 0016  10
RSPXCHR1 0024  ..  | RSPXDST4 0048  ..    RSPXISEL 0021  80    RSPXSFIL 0016  08
RSPXCHR2 0028  ..    RSPXFCB  000C  ..    RSPXMCHR 0020  ..    RSPXSIZE ....   A
RSPXCHR3 002C  ..    RSPXFILE 0016  01    RSPXNOPL 0021  10    RSPXTR0V 0021  01
RSPXCMOD 0008  ..    RSPXFLAG 0016  ..    RSPXNTRC 0023  ..    RSPXTR1V 0021  02
RSPXCRWC 0004  ..    RSPXFMNT 0016  20    RSPXOTRC 0022  ..    RSPXTR2V 0021  04
| RSPXDEST 0030  ..    RSPXFOLD 0016  02    RSPXPMNT 0016  04    RSPXTR3V 0021  08
| RSPXDST1 0030  ..    RSPXFORM 0018  ..    RSPXRECT 0010  ..    RSPXVTRC 0021  ..
```

SAVEAREA

SAVEAREA is used to save registers of a module when that module has called another module. Register 13 points to SAVEAREA. SAVEAREA is found in SAVE copy.



SIZE

SAVEAREA SIZE IN DOUBLEWORDS (SAVESIZE) C

Disp	Name	Len	Key	Description
0	SAVERETN	4		ACTIVE SAVEAREA - CALLER'S RETURN ADDRESS
0	SAVEPROC	1		ACTIVE SAVEAREA - PROCESSOR ADDRESS
0	SAVENEXT	4		INACTIVE SAVEAREA - NEXT SAVEAREA ADDRES
1	SAVERTN	3		ACTIVE SAVEAREA - RETURN ADDRESS
4	SAVER12	4		CALLER'S BASE - R12
8	SAVER13	4		CALLER'S SAVEAREA - R13
C	SAVEWRK1	4		CALLEE'S WORKAREA
10	SAVEREGS	48		CALLER'S REGISTERS - R0 TO R11
10	SAVER0	4		
14	SAVER1	4		
18	SAVER2	4		
1C	SAVER3	4		
20	SAVER4	4		
24	SAVER5	4		
28	SAVER6	4		

```
  2C    SAVER7      4
  30    SAVER8      4
  34    SAVER9      4
  38    SAVER10     4
  3C    SAVER11     4
  40    SAVEWRK2    4       CALLEE'S WORKAREA - 8 WORDS
  44    SAVEWRK3    4
  48    SAVEWRK4    4
  4C    SAVEWRK5    4
  50    SAVEWRK6    4
  54    SAVEWRK7    4
  58    SAVEWRK8    4
  5C    SAVEWRK9    4
```

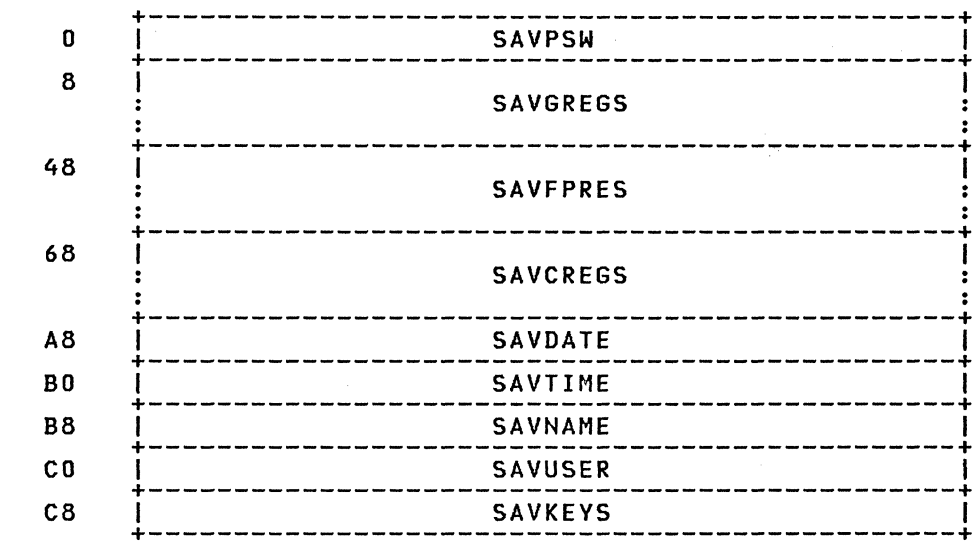
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SAVENEXT 0000 ..    SAVER11  003C ..    SAVER6   0028 ..    SAVEWRK3 0044 ..
SAVEPROC 0000 ..    SAVER12  0004 ..    SAVER7   002C ..    SAVEWRK4 0048 ..
SAVEREGS 0010 ..    SAVER13  0008 ..    SAVER8   0030 ..    SAVEWRK5 004C ..
SAVERETN 0000 ..    SAVER2   0018 ..    SAVER9   0034 ..    SAVEWRK6 0050 ..
SAVERTN  0001 ..    SAVER3   001C ..    SAVESIZE 0000 0C    SAVEWRK7 0054 ..
SAVER0   0010 ..    SAVER4   0020 ..    SAVEWRK1 000C ..    SAVEWRK8 0058 ..
SAVER1   0014 ..    SAVER5   0024 ..    SAVEWRK2 0040 ..    SAVEWRK9 005C ..
SAVER10  0038 ..
```

SAVTABLE: FIRST PAGE ON SAVED SYSTEM DASD

SAVTABLE is used in the initial program load of saved virtual machine named systems. It is created by the named system generation process (SAVESYS macro/SAVESYS command). SAVTABLE is found in SAVTABLE copy.



SIZE

SAVTABLE SIZE IN DOUBLEWORDS (SAVSIZE) 19

Disp	Name	Len	Key	Description
0	SAVPSW	8		PSW OF VIRTUAL MACHINE AT SAVSYS TIME
8	SAVGREGS	64		GENERAL PURPOSE REGISTERS
48	SAVFPRES	32		FLOATING POINT REGISTERS
68	SAVCREGS	64		CONTROL REGISTERS
A8	SAVDATE	8		DATE VMSAVE SYSTEM WAS STORED HERE
B0	SAVTIME	8		TIME VMSAVE SYSTEM WAS STORED HERE
B8	SAVNAME	8		NAME VMSAVE SYSTEM WAS SAVED UNDER
C0	SAVUSER	8		USER WHO SAVED VMSAVE SYSTEM

```
  C8   SAVKEYS    8       ENTRY FOR EACH SAVED PAGE WITH STOR KEYS

    Values defined in SAVKEYS

    37 SAVKEYMX           MAXIMUM NUMBER OF KEYS THAT CAN BE SAVED
```

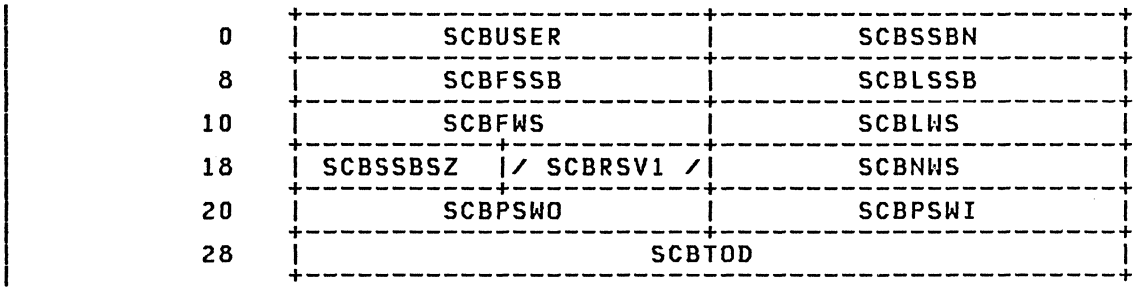
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SAVCREGS 0068 ..    SAVGREGS 0008 ..    SAVNAME  00B8 ..    SAVTIME  00B0 ..
SAVDATE  00A8 ..    SAVKEYMX 00C8 37    SAVPSW   0000 ..    SAVUSER  00C0 ..
SAVFPRES 0048 ..    SAVKEYS  00C8 ..    SAVSIZE  0000 19
```

SCBLOK: THE SWAP CONTROL BLOCK

The SCBLOK controls the logical and physical swapping of a virtual machine. The VMSCP field in the VMBLOK points to the SCBLOK. The SCBLOK is found in VMBLOK copy.



SIZE

SCBBLK SIZE IN DOUBLE WORDS (SCBSIZE) 6

Disp	Name	Len	Key	Description
0	SCBUSER	4		POINTER TO OWNER'S VMBLOK
4	SCBSSBN	4		NUMBER OF SWAP SET BLOCKS (SSBLOK)
8	SCBFSSB	4		POINTER TO FIRST SWAP SET BLOCK
C	SCBLSSB	4		POINTER TO LAST SWAP SET BLOCK
10	SCBFWS	4		POINTER TO CORTABLE ENTRY OF FIRST LOGICALLY SWAPPED PAGE
14	SCBLWS	4		POINTER TO CORTABLE ENTRY OF LAST LOGICALLY SWAPPED PAGE
18	SCBSSBSZ	2		SIZE OF SSBLOK IN DOUBLE WORDS
1A	SCBRSV1	2		RESERVED FOR IBM USE
1C	SCBNWS	4		NUMBER OF PAGES IN WORKING SET CHAIN
20	SCBPSWO	4		NUMBER OF PAGES PHYSICALLY SWAPPED OUT
24	SCBPSWI	4		NUMBER OF PAGES PHYSICALLY SWAPPED IN
28	SCBTOD	8		TIME OF DAY USER WAS LAST QDROP'D

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

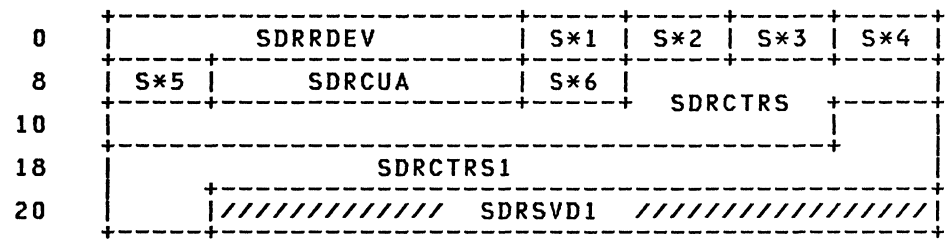
SCBFSSB	0008	..	SCBLWS	0014	..	SCBPSWO	0020	..	SCBSSBSZ	0018	..
SCBFWS	0010	..	SCBNWS	001C	..	SCBSIZE	....	6	SCBTOD	0028	..
SCBLSSB	000C	..	SCBPSWI	0024	..	SCBSSBN	0004	..	SCBUSER	0000	..

SCCBLOK: SCCB DATA BLOCK

SCCBLOK maps a response to a Service Call request.

SDRBLOK: STATISTICAL DATA RECORDING BLOCK

SDRBLOK contains counters to record errors temporarily on a given I/O device. The RDEVCTRS field in RDEVBLOK points to SDRBLOK. SDRBLOK is found in SDRBLOK copy.



SIZE

SDRBLOK BASE SIZE; IN BYTES (SDRBSIZE) D
EXPANDED SDRBLOK SIZE IN DOUBLEWORDS (SDRSIZE1) 5
SDRSIZE IN DOUBLEWORDS (SDRSIZE) 3

Disp	Name	Len	Key	Description
0	SDRRDEV	4		ADDRESS OF ASSOCIATED RDEVBLOK
4	SDRFLAGS	1	S*1	SDRBLOK FLAGS
	Values defined in SDRFLAGS			
	80 SDRSHRT			SHORT OUTBOARD RECORD TO BE WRITTEN
	40 SDRRECD			OUTBOARD RECORD TO RECORD ON COUNTER OVERFLOW
	20 SDRMAX			MAX NUMBER OF SDR COUNTERS HANDLED
5	SDRPRMCT	1	S*2	PARAMETER LIST COUNTER
6	SDRFLCT	1	S*3	FULL BYTE COUNTER
7	SDROVFWK	1	S*4	STATISTICAL UPDATE WORK BYTE
8	SDRLNGTH	1	S*5	LENGTH(BYTES) OF SDR COUNTERS
9	SDRCUA	3		PRIMARY CTL UNIT ADDR OF DEV BEING USED
C	SDRCPID	1	S*6	PROCESSOR ADDRESS OF PROCESSOR IN TROUBLE
D	SDRCTRS	10		SDR ERROR COUNTERS
17	SDRCTRS1	10		ADDITIONAL SDR ERROR COUNTERS
21	SDRSVD1	7		RESERVED FOR IBM USE

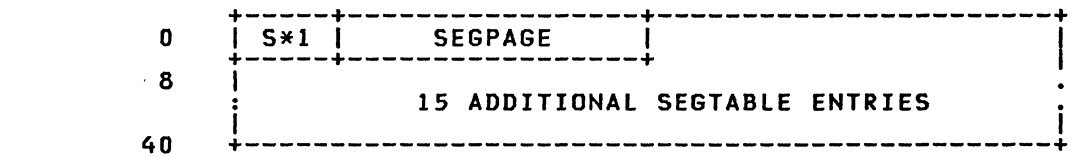
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SDRBSIZE	0000	0D	SDRFLAGS	0004	..	SDROVFWK	0007	..	SDRSHRT	0004	80
SDRCPID	000C	..	SDRFLCT	0006	..	SDRPRMCT	0005	..	SDRSIZE	0000	03
SDRCTRS	000D	..	SDRLNGTH	0008	..	SDRRDEV	0000	..	SDRSIZE1	0000	05
SDRCTRS1	0017	..	SDRMAX	0004	20	SDRRECD	0004	40	SDRSVD1	0021	..
SDRCUA	0009	..									

SEGTABLE: TRANSLATION SEGMENT TABLE

SEGTABLE is used in conjunction with the page table (PAGTABLE) and swap table (SWPTABLE) by the page management routines. The VMSEG field of the VMBLOK points to SEGTABLE. SEGTABLE is found in CORE copy.



Disp	Name	Len	Key	Description
0	SEGPAGE	4		POINTER TO REAL PAGE ADDRESS (PAGCORE)
0	SEGPLEN	0	S*1	PAGE TABLE LENGTH (NUMBER OF PAGES - 1)
3	SEGFLAG	1		SEGMENT TABLE ENTRY FLAG

Values defined in SEGFLAG

40	SEGENQ	SEGMENT ENQUEUED (IF POINTER = 0)
10	SEGMIG	SEGMENT MIGRATED (IF POINTER = 0)
08	SEGMIGPP	SEGMENT HAS MIGRATABLE PP PAGES (IF POINTER = 0)
04	SEGPROT	HARDWARE SEGMENT PROTECT EQU
02	SEGMIGPG	SEGMENT HAS MIGRATABLE PG PAGES (IF POINTER = 0)
01	SEGINV	SEGMENT INVALID FLAG

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SEGENQ	0003	40	SEGMIG	0003	10	SEGMIGPP	0003	08	SEGPLEN	0000	..
SEGFLAG	0003	..	SEGMIGPG	0003	02	SEGPAGE	0000	..	SEGPROT	0003	04
SEGINV	0003	01									

SELECT: CP TRAP TRACE TYPES ENTRY

SELECT is a table of trace types selected for CPTRAP output. SELECT actually contains two tables. HALF1 is a table of halfword indicators representing CP trace types. HALF1 is in numerical order. HALF2 is composed of fields that are pointed to by the positive number HALF1 entries. HALF2 also contains fields that are pointed to by other HALF2 fields. SELECT is found in CPTRAP copy.

SIZE

(ORIGSEL) 1A

Disp	Name	Len	Key	Description
0	HALF1	0		POINTERS AND DEFINERS
80	HALF2	0		FURTHER SELECTIVITY

Values defined in HALF2

7C	HALF1RLN	LEN OF TABLE
3F	TYPNUMAX	MAXIMUM ACCEPTABLE TYPENUM
04	HALF1EN2	2ND VALID ENTRY
02	HALF1EN1	1ST VALID TABLE ENTRY
01	TYPNUMIN	MINIMUM ACCEPTABLE TYPENUM

CROSS REFERENCE

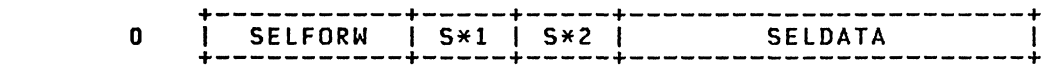
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

HALF1	0000	..	HALF1EN2	0080	04	HALF2	0080	..	TYPNUMAX	0080	3F
HALF1EN1	0080	02	HALF1RLN	0080	7C	ORIGSEL	....	1A	TYPNUMIN	0080	01

SELENTRY: FURTHER SELECTIVITY ENTRY

SELENTRY is found in CPTRAP copy.



SIZE

LENGTH IN BYTES (SELSIZE) 8

Disp	Name	Len	Key	Description
0	SELFORW	2		FORWARD DISPLACEMENT (OR ZERO) TO THE NEXT SELENTRY
2	SELDISP	1	S*1	DISPLACEMENT INTO THE TRACE RECORD THIS
3	SELLTH	1	S*2	LENGTH OF THIS COMPARE MINUS ONE.
4	SELDATA	4		DATA TO COMPARE WITH TRACE ENTRIES

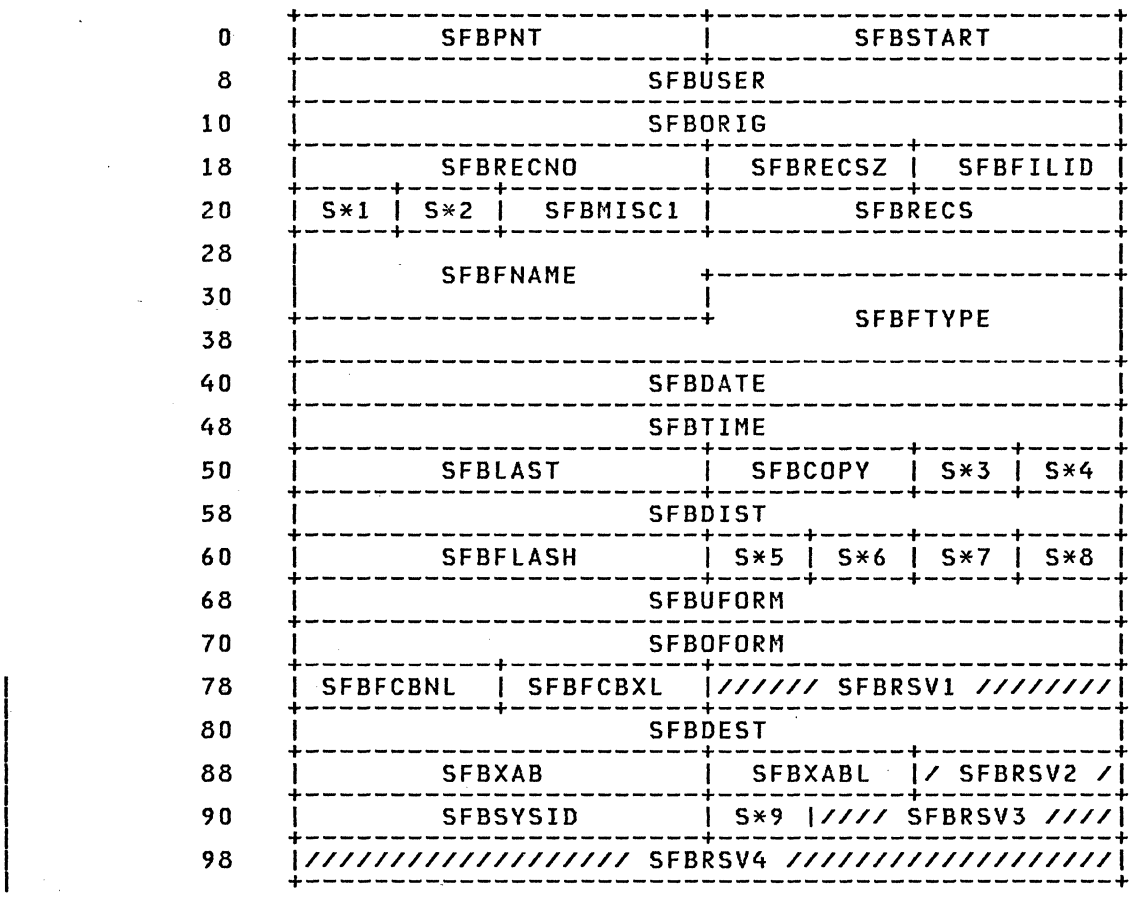
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SELDATA  0004  ..   SELFORW  0000  ..   SELLTH   0003  ..   SELSIZE  ....   8
SELDISP  0002  ..
```

SFBLOK: SPOOL FILE BLOCK

SFBLOK retains all the information relating to a spool file. A pointer provides a linkage to the next SFBLOK in the chain. The VSPSFBLK field of VSPLCTL and the RSPSFBLK field of RSPLCTL point to the SFBLOK. SFBLOK is found in SPOOL copy.



SIZE

SFBLOK SIZE IN DOUBLEWORDS (SFBSIZE) 14

Disp	Name	Len	Key	Description
0	SFBPNT	4		ADDRESS OF NEXT SFBLOK

4	SFBSTART	4		DASD LOCATION (DCHR) OF FIRST PAGE
8	SFBUSER	8		VMUSER IDENTIFICATION OF FILE OWNER
10	SFBORIG	8		VMUSER IDENTIFICATION OF FILE ORIGIN
18	SFBRECNO	4		NUMBER OF DATA RECORDS IN FILE
1C	SFBRECSZ	2		LOGICAL RECORD SIZE - EXCLUDING CCWS
1E	SFBFILID	2		BINARY SYSTEM FILE NUMBER
20	SFBFLAG	1	S*1	FLAGS

Values defined in SFBFLAG

80	SFBINUSE	FILE BEING PROCESSED
40	SFBRECOK	ALLOCATION RECORDS COMPLETE
20	SFBUHOLD	FILE IN USER HOLD STATUS
10	SFBDUMP	FILE IS A CP SYSTEM DUMP
08	SFBOPEN	INPUT FILE HAS BEEN OPENED
04	SFBSHOLD	FILE IN SYSTEM HOLD STATUS
02	SFBEOF	INPUT FILE HAS REACHED EOF
01	SFBRECER	SFBREC CHAIN INCOMPLETE

21	SFBTYPE	1	S*2	DEVICE TYPE FOR SPOOL OUTPUT
22	SFBMISC1	2		USE VARIES ACCORDING TO CALLER
24	SFBRECS	4		ADDRESS OF RECBLOKS FOR ACTIVE FILE
28	SFBFNAME	12		FILE NAME
34	SFBFTYPE	12		FILE TYPE
40	SFBDATE	8		CREATION DATE OF SPOOL FILE
48	SFBTIME	8		CREATION TIME OF SPOOL FILE
50	SFBLAST	4		DASD LOCATION (DCHR) OF LAST PAGE
54	SFBCOPY	2		NUMBER OF COPIES REQUESTED
56	SFBCLAS	1	S*3	SPOOL FILE CLASS CHARACTER
57	SFBFLAG2	1	S*4	FLAGS

Values defined in SFBFLAG2

80	SFBHOLD	SAVE INPUT FILE, HOLD OUTPUT FILE
40	SFBNOHLD	DELETE INPUT FILE, NOHOLD OUTPUT FILE
20	SFBFLNMT	FILE NOT EMPTY
20	SFBREQUE	REQUEUE SPOOL FILE
10	SFBRSTRT	RESTART IN PROGRESS
08	SFBTICER	BUFFER TIC ERROR
04	SFBPURGE	PURGE OPEN SPOOL FILE
02	SFBFIRST	INDICATE FIRST PAGE WRITTEN
01	SFBMON	MONITOR CLASS FILE

58	SFBDIST	8		DISTRIBUTION CODE
60	SFBFLASH	4		OVERLAY NAME FOR 3800 FLASHING
64	SFBSTCPY	1	S*5	CURRENT STARTING COPY NUMBER

	65	SFBFLAG3	1 S*6	FLAGS

Values defined in SFBFLAG3

80	SFBLDBEG	3800 LOAD CCWS AT BEGINNING
40	SFBLDMID	3800 LOAD CCWS ALL THRU FILE
20	SFBFCB	INDICATE FCB CCWS NOW IN FILE
04	SFBACNT	ACCOUNTING FILE
02	SFBSEEN	'FILE PREVIOUSLY SEEN' FLAG
01	SFBXFER	'FILE TRANSFERRED' FLAG

	66	SFBCKPMP	1 S*7	CHECKPOINT MAP NUMBER FOR SLOT
	67	SFBFLAG4	1 S*8	FLAGS

Values defined in SFBFLAG4

80	SFBINVS	SFBLOK IN SYSSPOOL VIRT STORAGE
40	SFBTUSE	FILE IN TEMPORARY USE BY SYSTEM
20	SFBNORET	NORETURN FLAG
10	SFBVLEN	ORIGINAL RECORD LENGTH AVAILABLE
08	SFBPURGD	FILE IS 'TO BE PURGED'
04	SFBCONV	FILE HAS BEEN CONVERTED
02	SFBBCONV	FILE BEING CONVERTED
01	SFBXABER	AN XAB DISK RECORD IS INCORRECT

	68	SFBUFORM	8	USER SPECIFIED FORM NUMBER
	70	SFBOFORM	8	OPERATOR SPECIFIED FORM NUMBER
	78	SFBFCBNL	2	LONGEST IMBEDDED FCB (3211-TYPE)
|	7A	SFBFCBXL	2	LONGEST IMBEDDED FCB (EXTENDED)
|	7C	SFBRSV1	4	RESERVED FOR IBM USE
|	80	SFBSP3	0	END OF ORIGINAL VM/SP R3 SFBLOK
|	80	SFBDEST	8	USER SPECIFIED DESTINATION
|	88	SFBXAB	4	DASD ADDRESS OF EXTERNAL ATTRIBUTE BUFFER
|	8C	SFBXABL	2	LENGTH OF EXTERNAL ATTRIBUTE BUFFER
|	8E	SFBRSV2	3	RESERVED FOR IBM USE
|	90	SFBSYSID	4	SYSTEM UNIQUE SPOOL ID
|	94	SFBFLAG5	1 S*9	FLAGS

Values defined in SFBFLAG5

|	80	SFBCDMP	INDICATE CURRENT DUMP SFBLOK
|	40	SFBCONTO	CONSOLE SPOOLED TO ANOTHER VIRTUAL MACHINE

|	95	SFBRSV3	3	RESERVED FOR IBM USE
	98	SFBRSV4	8	RESERVED FOR IBM USE

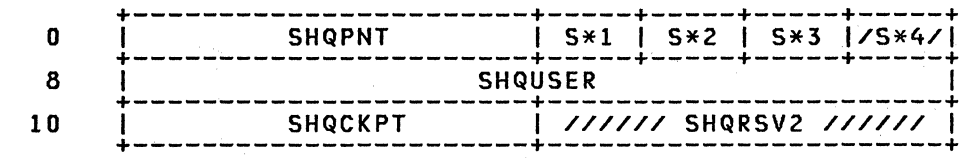
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SFBACNT	0065	04	SFBFLAG2	0057	..	SFBOFORM	0070	..	SFBSIZE	....	14
SFBBCONV	0067	02	SFBFLAG3	0065	..	SFBOPEN	0020	08	SFBSIZEB	0094	A0
SFBCDMP	0094	80	SFBFLAG4	0067	..	SFBORIG	0010	..	SFBSP3	0080	..
SFBCKPMP	0066	..	SFBFLAG5	0094	..	SFBPNT	0000	..	SFBSTART	0004	..
SFBCLAS	0056	..	SFBFLASH	0060	..	SFBPURGD	0067	08	SFBSTCPY	0064	..
SFBCONTO	0094	40	SFBFLNMT	0057	20	SFBPURGE	0057	04	SFBSYSID	0090	..
SFBCONV	0067	04	SFBFNAME	0028	..	SFBRECER	0020	01	SFBTICER	0057	08
SFBCOPY	0054	..	SFBFTYPE	0034	..	SFBRECNO	0018	..	SFBTIME	0048	..
SFBDATE	0040	..	SFBHOLD	0057	80	SFBRECOK	0020	40	SFBTUSE	0067	40
SFBDEST	0080	..	SFBINUSE	0020	80	SFBRECS	0024	..	SFBTYPE	0021	..
SFBDIST	0058	..	SFBINVS	0067	80	SFBRECSZ	001C	..	SFBUFORM	0068	..
SFBDUMP	0020	10	SFBLAST	0050	..	SFBREQUE	0057	20	SFBUHOLD	0020	20
SFBEOF	0020	02	SFBLDBEG	0065	80	SFBRSTRT	0057	10	SFBUSER	0008	..
SFBFCB	0065	20	SFBLDMID	0065	40	SFBRSV1	007C	..	SFBVLEN	0067	10
SFBFCBNL	0078	..	SFBMISC1	0022	..	SFBRSV2	008E	..	SFBXAB	0088	..
SFBFCBXL	007A	..	SFBMON	0057	01	SFBRSV3	0095	..	SFBXABER	0067	01
SFBFILID	001E	..	SFBNOHLD	0057	40	SFBSEEN	0065	02	SFBXABL	008C	..
SFBFIRST	0057	02	SFBNORET	0067	20	SFBSHOLD	0020	04	SFBXFER	0065	01
SFBFLAG	0020	..									

SHQBLOK: SPOOL HOLD QUEUE BLOCK

SHQBLOK provides a holding function for identified spool files to prevent output to another user or to a real output device. SHQBLOK is chained from the DMKRSPHQ field in DMKRSP. SHQBLOK is found in SPOOL copy.



SIZE

SHQBLOK SIZE IN DOUBLEWORDS (SHQBSIZE) 3

Disp	Name	Len	Key	Description
0	SHQPNT	4		ADDRESS OF NEXT SHQBLOK
4	SHQFLAGS	4		LENGTH
4	SHQUHOLD	1	S*1	USER 'USER HOLD' FLAG BYTE
5	SHQSHOLD	1	S*2	USER 'SYSTEM HOLD' FLAG BYTE
6	SHQCKPMP	1	S*3	CHECKPOINT MAP NUMBER FOR SLOT
7	SHQRSV1	1	S*4	RESERVED FOR IBM USE
8	SHQUSER	8		VMUSER IDENTIFICATION OF FILE OWNER
10	SHQCKPT	4		LOCATION OF CHECKPOINTED SHQBLOK
14	SHQRSV2	4		RESERVED FOR IBM USE

CROSS REFERENCE

(Name Disp Value)

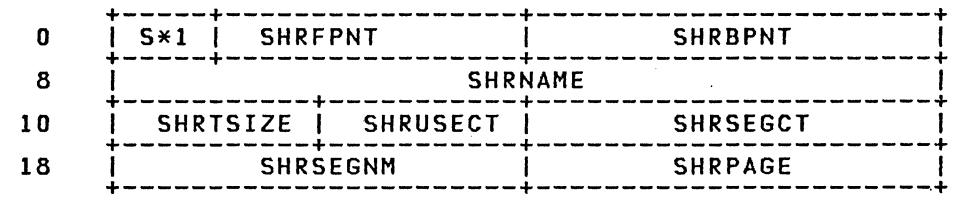
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SHQBSIZE	....	3	SHQFLAGS	0004	..	SHQRSV2	0014	..	SHQUSER	0008	..
SHQCKPMP	0006	..	SHQPNT	0000	..	SHQSHOLD	0005	..	TYPPRT	....	40
SHQCKPT	0010	..	SHQRSV1	0007	..	SHQUHOLD	0004	..	TYPPUN	....	80

SHRTABLE: NAMED-SHARED SEGMENT SYSTEMS TABLE

SHRTABLE contains pointers to the segment locations of named systems for both the shared and nonshared user. This block is used in paging, IPL, and virtual machine assist operations. SHRTABLE is chained from the DMKVMAS1 field in DMKVMA and from the PAGSHR field in PAGTABLE. SHRTABLE is found in SHRTABLE copy.

Note: In both attached processor (AP) and multiprocessor (MP) modes (except when running a 308x Processor Complex), there are two sets of page tables (PAGTABLEs) and swap tables (SWPTABLEs) for each shared segment; one for the IPL processor and one for the non-IPL processor. The page table for the non-IPL processor will be set at a fixed displacement (PAGBMP) from those of the main processor. In the case of a 308x Processor Complex with the segment protection extension, the control program maintains only one set of page tables and swap tables.



Disp	Name	Len	Key	Description
0	SHRFPNT	4		POINTER TO NEXT SHRTABLE
0	SHRFLAG	1	S*1	SHARED SEGMENT FLAG BYTE
	Values defined in SHRFLAG			
	40 SHRNOPRT			NONPROTECTED SHARED SEGMENTS
	20 SHRSGPRT			HARDWARE SEGMENT PROTECT EQUATE
4	SHRBPNT	4		POINTER TO PREVIOUS SHRTABLE
8	SHRNAME	8		NAME OF SAVED SYSTEM
10	SHRTSIZE	2		SIZE OF SHRTABLE IN DOUBLEWORDS
12	SHRUSECT	2		NUMBER OF USERS IPL'ED TO THIS NAME
14	SHRSEGCT	4		NUMBER OF SHARED SEGMENTS
18	SHRSEGNM	4		CONTAINS SHARED SEGMENT NUMBERS
1C	SHRPAGE	4		ADDRESSES OF EACH OF THE SHARED PAGTABLES
1F	SHRSGFLG	1		SHARED SEGMENT INDICATOR BYTE

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

SHRBPNT	0004	..	SHRNAME	0008	..	SHRSEGCT	0014	..	SHRSGPRT	0000	20
SHRFLAG	0000	..	SHRNOPRT	0000	40	SHRSEGNM	0018	..	SHRTSIZE	0010	..
SHRFPNT	0000	..	SHRPAGE	001C	..	SHRSGFLG	001F	..	SHRUSECT	0012	..

SIBLOK: SIGNAL BLOCK

SIBLOK contains data about a particular virtual machine group. There is an SIBLOK for each member of a virtual machine group. SIBLOK is found in VGBLOK COPY.

SIZE

SIBLOK SIZE IN DOUBLEWORDS (SISIZE) 2

Disp	Name	Len	Key	Description
0	SINEXT	4		ADDRESS OF NEXT SIBLOK
4	SIVMBLOK	4		VMBLOK OF GROUP MEMBER
8	SIGID	2		SIGNAL ID
A	SIPATH	2		IUCV PATH ID
C	SIFLAG	1	S*1	SIGNAL PROCESSING FLAGS

Values defined in SIFLAG

80	SIGIN	SIGNAL INCOMING GROUP MEMBERS
40	SIGOUT	SIGNAL EXITING GROUP MEMBERS
20	SIGUID	VIRTUAL MACHINE SPECIFIED SIGID
10	SIGALL	SIGNAL TO BROADCAST TO GROUP
08	SIGNOID	SIGNAL ID NOT IN THE GROUP

D	SIRSV1	3		RESERVED FOR IBM USE

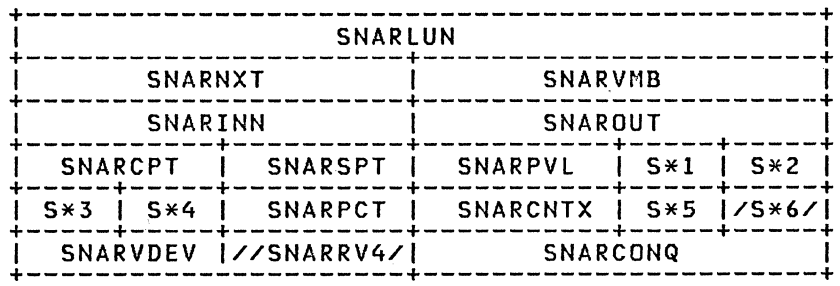
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SIFLAG	000C	..	SIGIN	000C	80	SIGUID	000C	20	SIRSV1	000D	..
SIGALL	000C	10	SIGNOID	000C	08	SINEXT	0000	..	SISIZE	....	2
SIGID	0008	..	SIGOUT	000C	40	SIPATH	000A	..	SIVMBLOK	0004	..

SNARBLOK: SYSTEMS NETWORK ARCHITECTURE RESOURCE BLOCK

SNARBLOK is dynamically created (one for each user) by SNA Console Communications Services (SNA CCS) when a SNA terminal user logs on to CP. It contains status, pointers and parameters needed to control the SNA Console Communications Services environment for the terminal user. SNARBLOK is pointed to by the RDEVSNRB field of the RDEVBLOK. SNARBLOK is found in SNARBLOK copy.



SIZE

SIZE OF SNARBLOK (SNARSIZ) 6

Disp	Name	Len	Key	Description
0	SNARLUN	8		LOGICAL UNIT NAME FOR THE SNA CONSOLE
8	SNARNXT	4		POINTER TO THE NEXT RDEVBLOK
C	SNARVMB	4		POINTER TO THE VSMBLOK
10	SNARINN	4		POINTER TO THE INPUT WEIBLOK READ CHAIN
14	SNAROUT	4		POINTER TO THE OUTPUT WEIBLOK WRITE CHAIN
18	SNARCPT	2		IUCV PATH ID FOR THE CCS
1A	SNARSPT	2		IUCV PATH ID FOR THE VSM
1C	SNARPVL	2		PACE VALUE FOR THE CONSOLE
1E	SNARMDE	1	S*1	MODE OF OPERATION

Values defined in SNARMDE

00	SNARCON	CONSOLE MODE
02	SNARFSS	FULL SCREEN SUPPORT MODE
01	SNARCMS	CMS MODE

1F	SNARCHR	1	S*2	CURRENT CHARACTER SET

Values defined in SNARCHR

00	SNAREBC	EBCDIC CHARACTER SET
02	SNARTXT	TEXT CHARACTER SET
01	SNARAPL	APL CHARACTER SET

20	SNARFG1	1	S*3	STATUS FLAGS

Values defined in SNARFG1

80	SNARPFKI	PF KEY INDICATOR
40	SNARBACH	BATCHING IN PROGRESS
20	SNARBTCT	LINE STILL TO BE BATCHED
10	SNARDIS	DISCONNECT STATE-RELEASE CONTROL BLOCKS
08	SNARRSE	ERROR RESUME STATE
04	SNARSPN	USER SUSPENDED
02	SNARRSV	RESERVED FOR IBM USE
01	SNARRDS	READ REQUEST SENT TO VCNA

21	SNARFG2	1	S*4	STATUS FLAGS

Values defined in SNARFG2

80	SNARTTY	USER TTY DEVICE SUPPORTED BY CP
40	SNARDIAL	BATCHING IN PROGRESS
20	SNARPFIM	READ GETS IMMEDIATE PF-KEY DATA
10	SNARPASS	NOTIFY USER OF PA1 KEY IN FULLSCRN
08	SNARNOPR	NO PRIORITY MESSAGES TO BE SENT
04	SNARFORC	USER BEING FORCED BY CCS
02	SNARCPFD	#CP FOUND BY CCS
01	SNARIF	INITIALIZATION FINISHED

22	SNARPCT	2		CURRENT VALUE OF THE PACE COUNTER
24	SNARCNTX	2		COUNT OF WEIBLOKS NEEDING RESTART
26	SNARFG3	1	S*5	STATUS FLAGS

Values defined in SNARFG3

01	SNARDIPG	DIAL IN PROGRESS
02	SNAREXWT	CCS TURNED ON EX WAIT BIT
04	SNARNOLS	CURRENT TASK NOT IDA

27	SNARRV3	1	S*6	RESERVED FOR IBM USE
28	SNARVDEV	2		VDEVBLOK DISPLACEMENT (DIALED)
2A	SNARRV4	2		RESERVED FOR IBM USE
2C	SNARCONQ	4		CONTASK QUEUE OS SPLIT TASKS

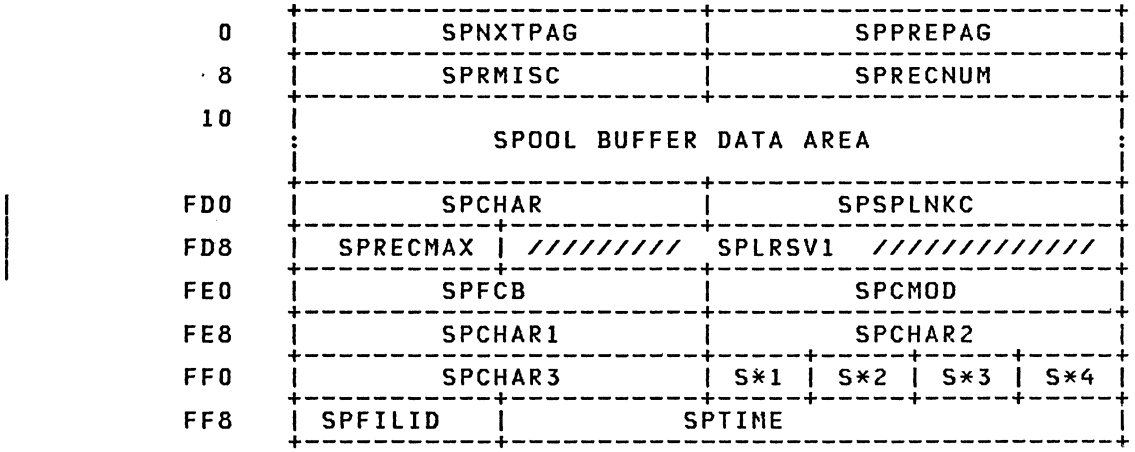
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SNARAPL	001F	01	SNARDIS	0020	10	SNARMDE	001E	..	SNARRSE	0020	08
SNARBACH	0020	40	SNAREBC	001F	00	SNARNOLS	0026	04	SNARRSV	0020	02
SNARBTCT	0020	20	SNAREXWT	0026	02	SNARNOPR	0021	08	SNARRV3	0027	..
SNARCHR	001F	..	SNARFG1	0020	..	SNARNXT	0008	..	SNARRV4	002A	..
SNARCMS	001E	01	SNARFG2	0021	..	SNAROUT	0014	..	SNARSIZ	0000	05
SNARCNTX	0024	..	SNARFG3	0026	..	SNARPASS	0021	10	SNARSPN	0020	04
SNARCON	001E	00	SNARPFIM	0021	20	SNARPCT	0022	..	SNARSPT	001A	..
SNARCONQ	002C	..	SNARFORC	0021	04	SNARPFKI	0020	80	SNARTTY	0021	80
SNARCPFD	0021	02	SNARFSS	001E	02	SNARPRMT	0020	02	SNARTXT	001F	02
SNARCPT	0018	..	SNARIF	0021	01	SNARPVL	001C	..	SNARVDEV	0028	..
SNARIAL	0021	40	SNARINN	0010	..	SNARRDS	0020	01	SNARVMB	000C	..
SNARDIPG	0026	01	SNARLUN	0000	..						

SPLINK: SPOOL PAGE BUFFER LINKAGE BLOCK

SPLINK resides in auxiliary storage and contains one page (4096 bytes) of unit record spool information consisting of data and all required CCWs. The RSPVPAGE field and the RSPRPAGE field in RSPLCTL point to SPLINK. SPLINK is found in SPOOL copy.



SIZE

END OF BUFFER SIZE IN BYTES (SPENDSIZ) 30
SPLINK SIZE IN BYTES (SPSIZE) 10

Disp	Name	Len	Key	Description
0	SPNXTPAG	4		DASD LOCATION (DCHR) OF NEXT PAGE
4	SPPREPAG	4		DASD LOCATION (DCHR) OF PREVIOUS PAGE
6	SPCPTRAP	2		CPTRAP SPANNED RECORD LENGTH
8	SPRMISC	4		USE VARIES ACCORDING TO CALLER
C	SPRECNUM	4		NUMBER OF DATA RECORDS IN BUFFER
FD0	SPCHAR	4		3800 CHARACTER ARRANGEMENT TABLE 0 FOR FILE
FD4	SPSPLNKC	4		COUNT OF SPLINKS FOR THIS FILE
FD8	SPRECMAX	2		MAXIMUM CCW DATA LENGTH IN FILE
FDC	SPLRSV1	6		RESERVED FOR IBM USE
FE0	SPFCB	4		3800 FCB FOR FILE
FE4	SPCMOD	4		3800 COPY MODIFICATION FOR FILE
FE8	SPCHAR1	4		3800 CHARACTER ARRANGEMENT TABLE 1
FEC	SPCHAR2	4		3800 CHARACTER ARRANGEMENT TABLE 2

```
FF0   SPCHAR3     4        3800 CHARACTER ARRANGEMENT TABLE 3
FF4   SPFLSHC     1 S*1    3800 FLASH COUNT
FF5   SPFLAG1     1 S*2    3800 FLAG BYTE
   Values defined in SPFLAG1
   80 SPCOPYFG             MULTIPLE COPIES IN ONE TRANSMISSION
   40 SPBTSTAC             3800 BTS SPECIFIED
FF6   SPCMCHR     1 S*3    COPY MODIFICATION TRANSLATE NUMBER
FF7   SPPGLEN     1 S*4    PAPER LENGTH (IN HALF INCHES)
FF8   SPFILID     2        FILID USED FOR VERIFICATION
FFA   SPTIME      6        SFBTIME USED FOR VERIFICATION
```

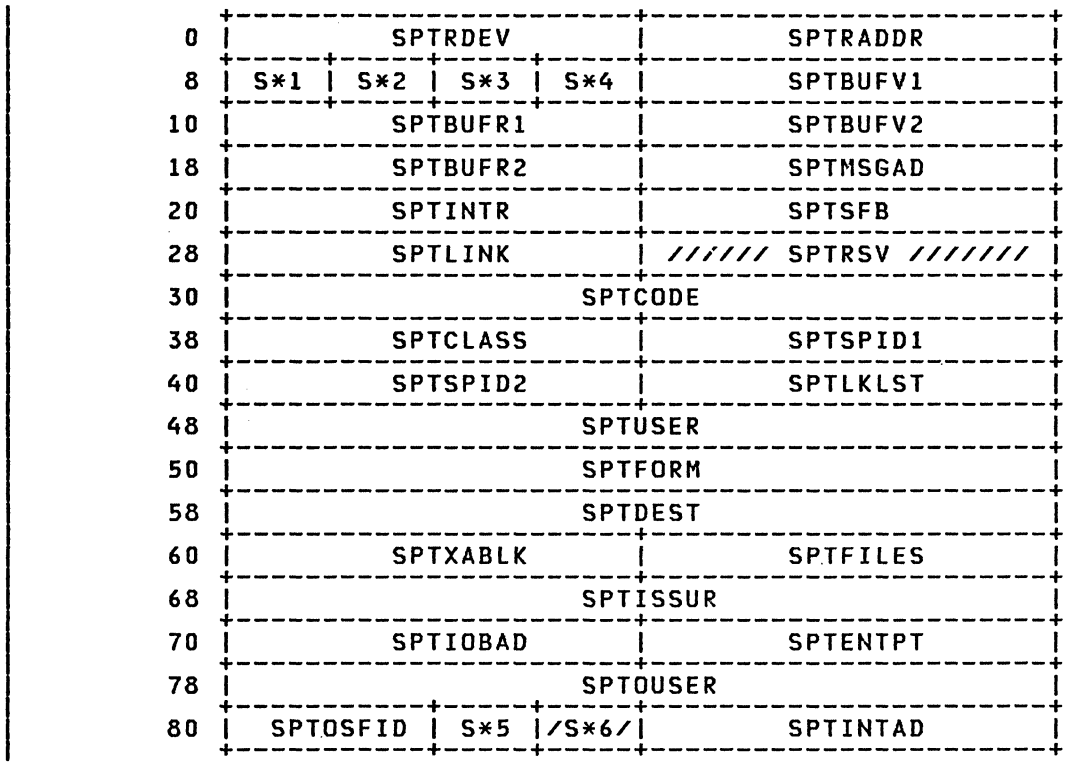
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SPBTSTAC OFF5  40   SPCMOD   OFE4  ..   SPFLAG1  OFF5  ..  SPRECMAX OFD8  ..
SPCHAR   OFD0  ..   SPCOPYFG OFF5  80   SPFLSHC  OFF4  ..  SPRECNUM 000C  ..
SPCHAR1  OFE8  ..   SPCPTRAP 0006  ..   SPLRSV1  OFDC  ..  SPRMISC  0008  ..
SPCHAR2  OFEC  ..   SPENDSIZ ....  30   SPNXTPAG 0000  ..  SPSIZE   ....  10
SPCHAR3  OFF0  ..   SPFCB    OFE0  ..   SPPGLEN  OFF7  ..  SPSPLNKC OFD4  ..
SPCMCHR  OFF6  ..   SPFILID  OFF8  ..   SPPREPAG 0004  ..  SPTIME   OFFA  ..
```

SPTBLOK: SPOOL-TO-TAPE BLOCK

SPTBLOK is used to control the SPTAPE command. It is pointed to by RDEVSPT.
SPTBLOK is found in SPOOL copy.



SIZE

SPTBLOK SIZE IN DOUBLEWORDS (SPTSIZE) 16

Disp	Name	Len	Key	Description
0	SPTRDEV	4		ADDRESS OF REAL DEVICE BLOCK
4	SPTRADDR	4		RADDR IN HEXIDECIMAL
8	SPTMODE	1	S*1	MODE SET OP CODE FOR TAPE
9	SPTFLAG	1	S*2	OPTIONS FLAG BYTE

Values defined in SPTFLAG

```
|     80 SPTPRT             PRINTER SPECIFIED IF ON
|     40 SPTCLAS            CLASSES SPECIFIED IF ON
|     20 SPTRUN             POSITION IS UNLOAD IF ON
|     10 SPTREW             POSITION IS REWIND IF ON
|     08 SPTPUR             PURGE SPECIFIED IF ON
|     04 SPTUHOLD           INCLUDE USER HELD FILES
|     02 SPTSHOLD           INCLUDE SYSTEM HELD FILES
|     01 SPTNOH             INCLUDE NOHOLD FILES

|   A   SPTFLAG1   1 S*3  OPTIONS FLAG BYTE

|    Values defined in SPTFLAG1

|     80 SPTRDR             READER SPECIFIED IF ON
|     40 SPTFRMST           FORM NUMBER REQUESTED
|     20 SPTLAST            INDICATE LAST SPLINK FOR CPTRAP
|     10 SPTSAD             STAND-ALONE DUMP SPECIFIED, IF ON
|     08 SPTSYS             SYSTEM WIDE SPOOL DESIRED IF ON
|     04 SPTDESTS           DESTINATION HAS BEEN SPECIFIED
|     02 SPTXAB             SPLINKS HAVE ALL BEEN PROCESSED
|     01 SPTLDRDR           READER FILE DESIRED IF ON

|   B   SPTFLAG2   1 S*4  OPERATION FLAG BYTE

|    Values defined in SPTFLAG2

|     80 SPTLOAD            LOAD IN PROGRESS
|     40 SPTSTOP            STOP PROCESSING
|     20 SPTCAN             CANCEL PROCESSING
|     10 SPTDONE            PROCESSING COMPLETED
|     08 SPTREAD            READ IN PROGRESS
|     04 SPTLDPRT           PRINTER FILES DESIRED IF ON
|     02 SPTTM              TAPEMARK READ
|     01 SPTUNLD            UNLOAD CCW ISSUED

|   C   SPTBUFV1   4      VIRTUAL ADDRESS OF BUFFER ONE

| 10    SPTBUFR1   4      REAL ADDRESS OF BUFFER ONE

| 14    SPTBUFV2   4      VIRTUAL ADDRESS OF BUFFER TWO

| 18    SPTBUFR2   4      REAL ADDRESS OF BUFFER TWO

| 1C    SPTMSGAD   4      ADDRESS OF MESSAGE AREA

| 20    SPTINTR    4      RETURN ADDRESS ON I/O INTERRUPT

| 24    SPTSFB     4      ADDRESS OF SFBLOK

| 28    SPTLINK    4      ADDRESS OF SPLINK BLOCK

| 2C    SPTRSV     4      RESERVED FOR IBM USE

| 30    SPTCODE    8      TIME STAMP

| 38    SPTCLASS   4      CLASSES OF SFBLOK ALLOWED

| 3C    SPTSPID1   4      LOWEST SPOOLID ALLOWED

| 40    SPTSPID2   4      HIGHEST SPOOLID ALLOWED

| 44    SPTLKLST   4      ADDRESS OF LAST SPLINK BLOCK

| 48    SPTUSER    8      USERID OF SPTBLOK

| 50    SPTFORM    8      FORM NUMBER OF REQUESTED FILES
```

58	SPTDEST	8		DESTINATION OF REQUESTED FILE
60	SPTXABLK	4		ADDRESS OF XAB SPLINK BLOCK
64	SPTFILES	4		ADDRESS OF CURRENT FILELIST
68	SPTISSUR	8		USERID OF USERID WHO ISSUED THE COMMAND
70	SPTIOBAD	4		ADDRESS OF IOBLOCK
74	SPTENTPT	4		ADDRESS OF CURRENT ENTRY IN FILELIST
78	SPTOUSER	8		USERID OF LAST FILE DUMPED
80	SPTOSFID	2		SPOOLID OF LAST FILE DUMPED
82	SPTFLAG3	1	S*5	FLAG BYTE
	Values defined in SPTFLAG3			
	80 SPTOFLOW			TAPE MOUNT REQUEST HAS BEEN ISSUED
	40 SPTEOTW			END OF TAPE MARK HAS BEEN WRITTEN
83	SPTRSV1	1	S*6	RESERVED FOR IBM USE
84	SPTINTAD	4		REAL ADDRESS OF SPTAPE I/O HANDLER

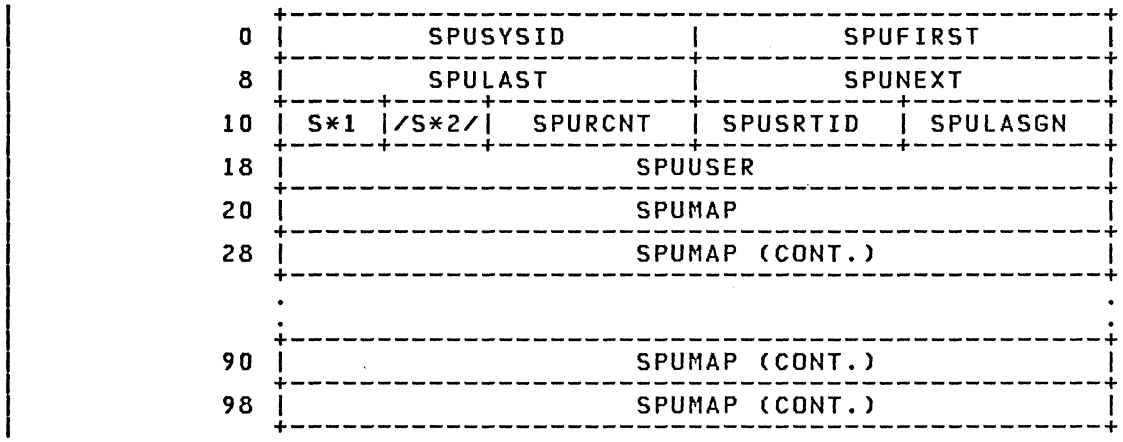
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

SPTBUFR1	0010	..	SPTFLAG1	000A	..	SPTMODE	0008	..	SPTRUN	0009	20
SPTBUFR2	0018	..	SPTFLAG2	000B	..	SPTMSGAD	001C	..	SPTSAD	000A	10
SPTBUFV1	000C	..	SPTFLAG3	0082	..	SPTNOH	0009	01	SPTSFB	0024	..
SPTBUFV2	0014	..	SPTFORM	0050	..	SPTOFLOW	0082	80	SPTSHOLD	0009	02
SPTCAN	000B	20	SPTFRMST	000A	40	SPTOSFID	0080	..	SPTSIZE	....	11
SPTCLAS	0009	40	SPTINTAD	0084	..	SPTOUSER	0078	..	SPTSPID1	003C	..
SPTCLASS	0038	..	SPTINTR	0020	..	SPTPRT	0009	80	SPTSPID2	0040	..
SPTCODE	0030	..	SPTIOBAD	0070	..	SPTPUR	0009	08	SPTSTOP	000B	40
SPTDEST	0058	..	SPTISSUR	0068	..	SPTRADDR	0004	..	SPTSYS	000A	08
SPTDESTS	000A	04	SPTLAST	000A	20	SPTRDEV	0000	..	SPTTM	000B	02
SPTDONE	000B	10	SPTLDPRT	000B	04	SPTRDR	000A	80	SPTUHOLD	0009	04
SPTENTPT	0074	..	SPTLDRDR	000A	01	SPTREAD	000B	08	SPTUNLD	000B	01
SPTEOTW	0082	40	SPTLINK	0028	..	SPTREW	0009	10	SPTUSER	0048	..
SPTFILES	0064	..	SPTLKLST	0044	..	SPTRSV	002C	..	SPTXAB	000A	02
SPTFLAG	0009	..	SPTLOAD	000B	80	SPTRSV1	0083	..	SPTXABLK	0060	..

SPUBLOK: USER SPOOL CONTROL BLOCK

SPUBLOK contains information relating to a virtual machine's control of the spool. It is located in SYSSPOOL's virtual storage. A SPUBLOK is built for each user with a spool file at system initialization. The Reader Hash Table points to SPUBLOK. SPUBLOK is found in SPOOL copy.



SIZE

NUMBER OF BITS IN THE MAP (SPUMAPSZ) 400
NUMBER OF BYTES IN AN SPUBLOK (SPUSIZEB) A0

Disp	Name	Len	Key	Description
0	SPUSYSID	4		SYSSPOOL VIRTUAL ADDRESS OF THIS SPUBLOK
4	SPUFIRST	4		SYSSPOOL VIRTUAL ADDRESS OF USER'S FIRST READER SFBLOK
8	SPULAST	4		SYSSPOOL VIRTUAL ADDRESS OF USER'S LAST READER SFBLOK
C	SPUNEXT	4		SYSSPOOL VIRTUAL ADDRESS OF USER'S NEXT SPUBLOK
10	SPUIND	1	S*1	SPUBLOK INDICATOR - SET TO X'FE' (SPUIND MUST ALWAYS MAP OVER THE SFBORIG FIELD IN THE SFBLOK)
11	SPRSV1	1		RESERVED FOR IBM USE
12	SPURCNT	2		COUNT OF READER FILES ON USER'S CHAIN
14	SPUSRTID	2		STARTING SPOOLID FOR SPUMAP
16	SPULASGN	2		LAST ASSIGNED USER SPOOLID

| 18 SPUUSER 8 VMUSER OF SPUBLOK OWNER

| 20 SPUMAP 128 USER'S SPOOL FILE BIT MAP

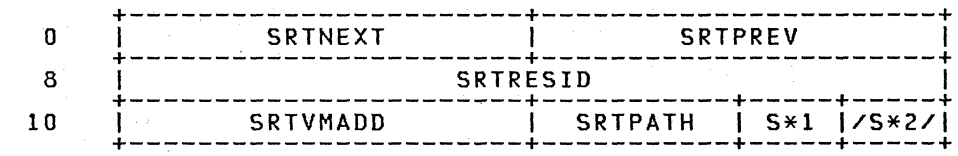
| CROSS REFERENCE
| (Name Disp Value)

| This cross reference contains all the labels defined above
| as well as any general equates the copy file may contain.

| SPUFIRST 0004 .. | SPUMAP 0020 .. | SPURCNT 0012 .. | SPUSRTID 0014 ..
| SPUIND 0010 FE | SPUMAPSZ .... 3E0 | SPUSIZEB .... A0 | SPUSYSID 0000 ..
| SPULASGN 0016 .. | SPUNEXT 000C .. | SPURSV1 0011 .. | SPUUSER 0018 ..
| SPULAST 0008 ..

SRTBLOK: SYSTEM RESOURCE BLOCK

SRTBLOK contains information about a particular system resource. SSCRTADD in the SCCBLOK points to the first resource, SRTBLOK, defined by a virtual machine. SRTBLOK is found in SRTBLOK copy.



SIZE

SIZE OF SRTBLOK IN DOUBLEWORDS (SRTSIZE) 3

Disp	Name	Len	Key	Description
0	SRTNEXT	4		ADDRESS OF NEXT SRTBLOK
4	SRTPREV	4		ADDRESS OF PREVIOUS SRTBLOK
8	SRTRESID	8		RESOURCE NAME
10	SRTVMADD	4		VMBLOK ADDRESS OF RESOURCE OWNER
14	SRTPATH	2		PATH ID TO RESOURCE OWNER
16	SRTFLAG	1	S*1	FLAG BYTE
	Values defined in SRTFLAG			
80	SRTGIND			RESOURCE IS A GLOBAL RESOURCE
40	SRTIPND			IDENTIFY IS PENDING FOR RESOURCE
20	SRTSPND			RESOURCE OWNER HAS SEVERED PATH
10	SRTRVPND			REVOKE IS PENDING
08	SRTRRPND			REVOKE FROM TSAF MACHINE PENDING
17	SRTRSV1		S*2	RESERVED FOR IBM USE

CROSS REFERENCE

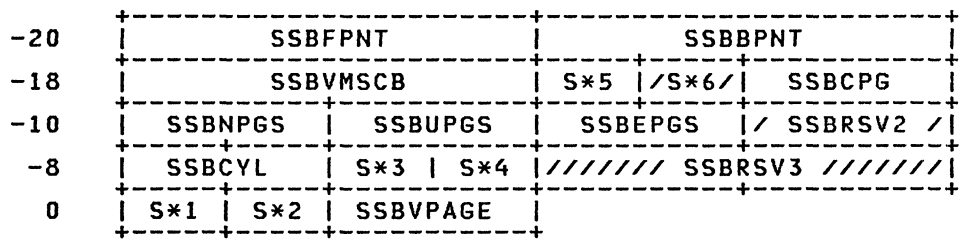
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SRTFLAG	0016	..	SRTPATH	0014	..	SRTRRPND	0016	08	SRTSIZE	....	3
SRTGIND	0016	80	SRTPREV	0004	..	SRTRSV1	0017	..	SRTSPND	0016	20
SRTIPND	0016	40	SRTRESID	0008	..	SRTRVPND	0016	10	SRTVMADD	0010	..
SRTNEXT	0000	..									

SSBLOK: SWAP SET RECORD

SSBLOK is used to describe each swapset. SSBLOK is chained from the SCBFSSB field in SCBLOK. SSBLOK is found in CORE copy.



SIZE

LENGTH OF SSB ENTRY (SSBENTRL) 4

Disp	Name	Len	Key	Description
-20	SSBFPNT	4		FORWARD POINTER TO NEXT SSBLOK
-1C	SSBBPNT	4		BACKWARD POINTER TO NEXT SSBLOK
-18	SSBVMSCB	4		POINTER TO SWAP CONTROL BLOCK
-14	SSBFLAG	1	S*5	SWAPSET FLAGS

Values defined in SSBFLAG

80	SSBSWAP	SWAPSET SWAPPED OUT
40	SSBPGSP	SWAPSET TO PAGE SPACE
20	SSBTRANS	SWAPSET IN TRANSIT
10	SSBFLUSH	SWAPSET TO BE FLUSHED BY SELECT
08	SSBALLOC	SWAPSET ENQUEUED FOR ALLOCATION
04	SSBOLD	SWAPSET NOT IN WORKING SET
02	SSBNDLCT	DO NOT DEALLOCATE SWAP SET
01	SSBMGREF	MIGRATION REFERENCE BIT

-13	SSBRSV1	1	S*6	RESERVED FOR IBM USE
-12	SSBCPG	2		CURRENT PAGE TO BE SWAPPED
-10	SSBNPGS	2		NUMBER ENTRIES IN SWAPSET
-0E	SSBUPGS	2		NUMBER OF <16M ENTRIES USED IN SWAPSET
-0C	SSBEPGS	2		NUMBER OF >16M ENTRIES USED IN SWAPSET
-0A	SSBRSV2	2		RESERVED FOR IBM USE
-08	SSBCYL	2		DASD CYLINDER ADDRESS ('CC'PD)
-06	SSBDPAGE	1	S*3	FIRST SSBENTRY'S PAGE (CC'P'D)
-05	SSBCODE	1	S*4	RDEVBLOK DEVICE CODE (CCP'D')

Values defined in SSBCODE

```
   FF SSBPSTOR           INDICATES PAGING STORAGE
-04   SSBRSV3     4      RESERVED FOR IBM USE
  0   SSBENTRY    0      SWAPSET ENTRY
  0   SS3EFLG     1 S*1  SWAPSET ENTRY FLAGS
   Values defined in SSBEFLG
   80 SSBEINVL           SWAPSET ENTRY INVALID
   40 SSBEXTND           SWAPSET ENTRY BUILT FOR >16M
  1   SSBENUM     1 S*2  ENTRY NUMBER WITHIN SSBLOK
  2   SSBVPAGE    2      VIRTUAL PAGE NUMBER
   Values defined in SSBVPAGE
   20 SSBHEADL           LENGTH OF SSB HEADER
```

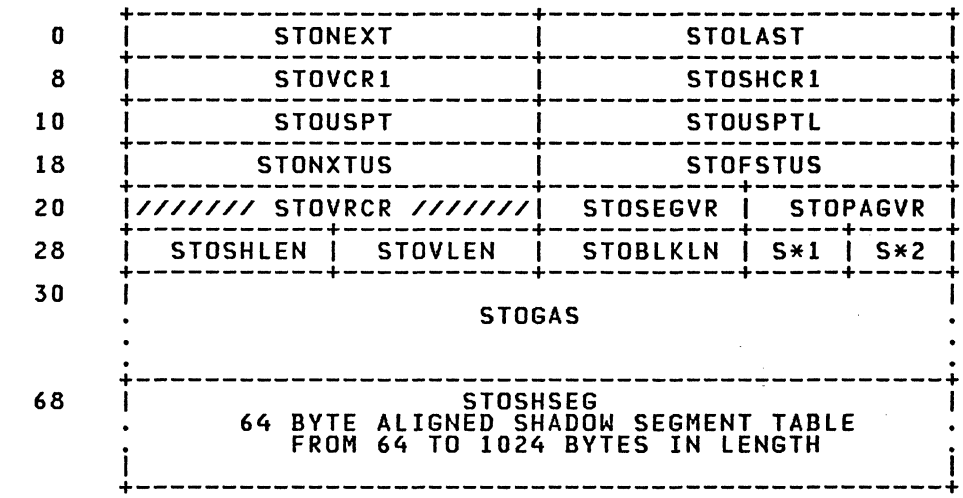
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SSBALLOC 000C  08   SSBENTRL ....   4   SSBHEADL 0022  20   SSBRSV2  0016  ..
SSBBPNT  0004  ..   SSBENTRY 0020  ..   SSBMGREF 000C  01   SSBRSV3  001C  ..
SSBCODE  001B  ..   SSBENUM  0021  ..   SSBNDLCT 000C  02   SSBSWAP  000C  80
SSBCPG   000E  ..   SSBEPGS  0014  ..   SSBNPGS  0010  ..   SSBTRANS 000C  20
SSBCYL   0018  ..   SSBEXTND 0020  40   SSBOLD   000C  04   SSBUPGS  0012  ..
SSBDPAGE 001A  ..   SSBFLAG  000C  ..   SSBPGSP  000C  40   SSBVMSCB 0008  ..
SSBEFLG  0020  ..   SSBFLUSH 000C  10   SSBPSTOR 001B  FF   SSBVPAGE 0022  ..
SSBEINVL 0020  80   SSBFPNT  0000  ..   SSBRSV1  000D  ..
```

STOBLOK: SEGMENT TABLE ORIGIN CONTROL BLOCK

STOBLOK contains information pertaining to the "shadow segment table" as well as the "shadow segment table" itself. The EXTSTOP field of the ECBLOK points to the first STOBLOK on a chain. STOBLOK is found in STOBLOK copy.



SIZE

STOBOLK SIZE IN DOUBLEWORDS (STOSIZE) 0D

Disp	Name	Len	Key	Description
0	STONEXT	4		POINTER TO THE NEXT STOBLOK
4	STOLAST	4		POINTER TO THE LAST STOBLOK IN THE CHAIN
8	STOVCR1	4		VIRTUAL C-REG 1; SEGMENT TABLE POINTER
C	STOSHCR1	4		SHADOW CONTROL REGISTER 1
10	STOUSPT	4		POINTER TO USER AREA SHADOW PAGE TABLE POOL
14	STOUSPTL	4		LENGTH OF USER AREA SHADOW TABLE POOL
18	STONXTUS	4		POINTER TO NEXT ENTRY IN USER SHADOW PAGE TABLE
18	STOVPSG	2		DISPLACEMENT TO STE FOR VIRTUAL PREFIX PAGE
1A	STOVPPG	2		DISPLACEMENT TO PTE FOR VIRTUAL PREFIX PAGE
1C	STOFSTUS	4		POINTER TO FIRST ENTRY FOR USER
1C	STO6CSG	2		DISPLACEMENT TO STE FOR DIAG 6C ADDRESS
1E	STO6CPG	2		DISPLACEMENT TO PTE FOR DIAG 6C ADDRESS

20	STOVRCR	4		RESERVED FOR IBM USE
24	STOSEGVR	2		SIZE OF VV=VR AREA IN THE SEGMENT TABLE
26	STOPAGVR	2		SIZE OF VV=VR AREA, LAST VV=VR PAGTBL
28	STOSHLEN	2		LENGTH OF SHADOW SEGTABLE IN BYTES
2A	STOVLEN	2		LENGTH OF VIRTUAL SEGTABLE IN BYTES
2C	STOBLKLN	2		LENGTH OF STOBLOK IN DOUBLEWORDS
2E	STOFLAG	1	S*1	STO FLAG BYTE

Values defined in STOFLAG

80	PURGESTO	PURGE SHADOW SEGTABLE
40	NOPTLB	DO NOT PURGE REAL TABLE LOOKASIDE BUFFER
20	STOACTV	STOBLOK ASSIGNED TO VIRT CR1 OR 7

2F	STOSEGCT	1	S*2	COUNT OF SEGTABLES ABOVE HIGH WATERMARK
30	STOGAS	56		UNUSED AREA TO ALLOW THE SEGTABLE TO BE ALIGNED ON A 64 BYTE BOUNDARY
68	STOSHSEG	0		SEGTABLE STARTS BETWEEN STOGAS AND STOSHSEG

CROSS REFERENCE
(Name Disp Value)

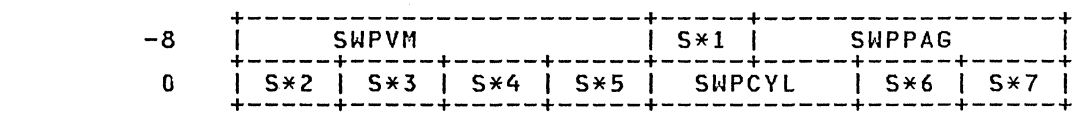
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

NOPTLB	002E	40	STOLAST	0004	..	STOSHLEN	0028	..	STOVLEN	002A	..
PURGESTO	002E	80	STONEXT	0000	..	STOSHSEG	0068	..	STOVPPG	001A	..
STOACTV	002E	20	STONXTUS	0018	..	STOSIZE	0000	0D	STOVPSG	0018	..
STOBLKLN	002C	..	STOPAGVR	0026	..	STOUSPT	0010	..	STOVRCR	0020	..
STOFLAG	002E	..	STOSEGCT	002F	..	STOUSPTL	0014	..	STO6CPG	001E	..
STOFSTUS	001C	..	STOSEGVR	0024	..	STOVCR1	0008	..	STO6CSG	001C	..
STOGAS	0030	..	STOSHCR1	000C	..						

SWPTABLE: SWAP TABLE FOR VIRTUAL MACHINE PAGING

SWPTABLE is used in conjunction with the page table (PAGTABLE) and the segment table (SEGTABLE) by the CP page management routines for relating the virtual storage to DASD slots and real storage. The PAGSWP field of the PAGTABLE points to SWPTABLE. SWPTABLE is found in CORE copy.

Note: In both attached processor (AP) and multiprocessor (MP) modes (except when running a 308x processor complex), there are two sets of swap tables (SWPTABLEs) for each shared segment; one for the IPL processor and one for the non-IPL processor. The swap table for the non-IPL processor will be set at a fixed displacement from those of the main processor. In the case of a 308x processor complex with the segment protection extension, the control program maintains only one set of swap tables.



SIZE

SIZE OF SWPTABLE IN DOUBLEWORDS (SWPTBLSZ) 2

Disp	Name	Len	Key	Description
-08	SWPVM	4		ADDRESS OF VMBLOK
-04	SWPFLAG2	1	S*1	FLAGS
	Values defined in SWPFLAG2			
	80 SWPAPP			AP SHARED PAGE AND SWAP TABLES
-04	SWPSEGNO	1	S*1	SEGMENT TABLE INDEX (0 TO 255)
-04	SWPPAG	4		ADDRESS OF PAGTABLE
0	SWPFLAG	1	S*2	FLAGS
	Values defined in SWPFLAG			
	80 SWPTRANS			PAGE IN TRANSIT
	40 SWPRECMP			PAGE PERMANENTLY ASSIGNED
	20 SWPALLOC			PAGE ENQUEUED FOR ALLOCATION
	10 SWPSHR			PAGE SHARED
	08 SWPREF1			FIRST HALF PAGE REFERENCED
	04 SWPCHG1			FIRST HALF PAGE CHANGED
	02 SWPREF2			SECOND HALF PAGE REFERENCED
	01 SWPCHG2			SECOND HALF PAGE CHANGED
1	SWPVPAGE	1	S*3	VIRTUAL PAGE NUMBER WITHIN SEGMENT
2	SWPKEY1	1	S*4	VIRTUAL STORAGE KEY, FIRST 2048 BYTES
3	SWPKEY2	1	S*5	VIRTUAL STORAGE KEY, SECOND 2048 BYTES
4	SWPCYL	2		DASD CYLINDER ADDRESS

```
6    SWPDPAGE    1 S*6  DASD PAGE NUMBER ON CYLINDER
7    SWPCODE     1 S*7  RDEVBLOK DEVICE CODE
 Values defined in SWPCODE
 FF SWPPSTOR           INDICATES PAGING STORAGE
```

NOTE: If the first byte of SWPCYL is X'FF', this indicates the page is physically swapped out and the 3 bytes starting with the second byte of SWPCYL contains the real address of an SSBLOK entry.

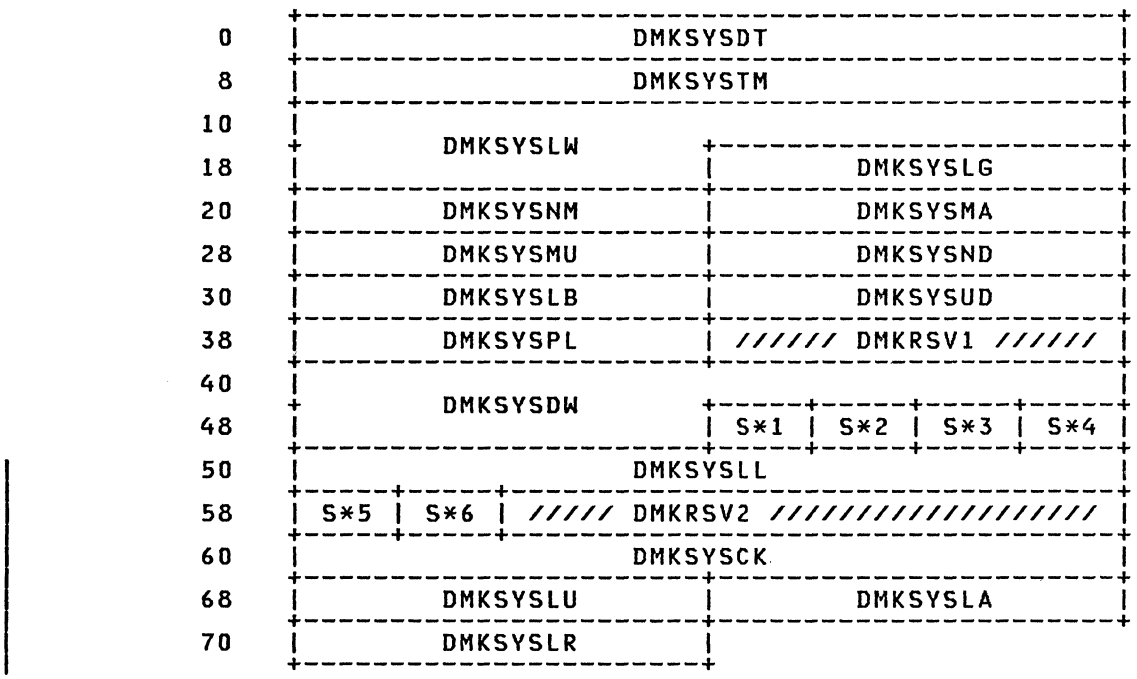
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

SWPALLOC	0008	20	SWPDPAGE	000E	..	SWPPAG	0004	..	SWPSEGNO	0004	..
SWPAPP	0004	80	SWPFLAG	0008	..	SWPPSTOR	000F	FF	SWPSHR	0008	10
SWPCHG1	0008	04	SWPFLAG2	0004	..	SWPRECMP	0008	40	SWPTRANS	0008	80
SWPCHG2	0008	01	SWPKEY1	000A	..	SWPREF1	0008	08	SWPVM	0000	..
SWPCODE	000F	..	SWPKEY2	000B	..	SWPREF2	0008	02	SWPVPAGE	0009	..
SWPCYL	000C	..									

SYSLOCS: SYSTEM LOW STORAGE INFORMATION BLOCK

SYSLOCS contains user logon and dial statistics, time/date and log message data, Time of Day values, and line edit values. The ASYSLC field in the PSA points to SYSLOCS. SYSLOCS is found in the SYSLOCS macro.



Disp	Name	Len	Key	Description
0	DMKSYSDT	8		DATE OF SYSTEM LOG MESSAGE
8	DMKSYSTM	8		TIME OF SYSTEM LOG MESSAGE
10	DMKSYSLW	0		START OF WEEKDAY OF SYSTEM LOG MESSAGE
1C	DMKSYSLG	4		POINTER TO FIRST LOG MESSAGE BLOCK
20	DMKSYSNM	4		CURRENT NUMBER OF USERS ON THE SYSTEM
24	DMKSYSMA	4		MAXIMUM NUMBER OF USERS ALLOWED ON SYSTEM
28	DMKSYSMU	4		MAXIMUM NUMBER OF USERS ON THE SYSTEM
2C	DMKSYSND	4		NUMBER OF DIALED USERS ON THE SYSTEM
30	DMKSYSLB	4		ADDRESS OF USER DIRECTORY LOCK BLOCK
34	DMKSYSUD	4		ADDRESS OF USER DIRECTORY ON SYSRES
38	DMKSYSPL	4		ADDRESS OF A LIST OF VIRTUAL PAGE BUFFERS

3C	DMKRSV1	4		RESERVED FOR IBM USE
40	DMKSYSDW	0		START OF DAY OF WEEK IN HEX & EBCDIC
4C	DMKSYSLE	1	S*1	DEFAULT LINE-END (POUND-SIGN)
4D	DMKSYSLD	1	S*2	DEFAULT LINE-DELETE (CENT-SIGN)
4E	DMKSYSCD	1	S*3	DEFAULT CHARACTER-DELETE (AT-SIGN)
4F	DMKSYSES	1	S*4	DEFAULT EDIT ESCAPE (DOUBLE-QUOTE-MARK)
50	DMKSYSLL	0		START OF DEFAULT LINE LENGTHS
58	DMKSYSMS	1	S*5	SYSTEM MAXIMUM STO COUNT FOR ANY USER
59	DMKSYSDS	1	S*6	SYSTEM DEFAULT STO COUNT FOR EACH USER
5A	DMKRSV2	6		RESERVED FOR IBM USE
60	DMKSYSCK	8		TIME OF DAY CLOCK VALUE LAST STORED
68	DMKSYSLU	4		CURRENT NUMBER OF SNA USERS ON SYSTEM
6C	DMKSYSLA	4		MAXIMUM NUMBER OF SNA USERS ALLOWED
70	DMKSYSLR	4		ADDR OF READER CHAIN LOCK BLOCKS

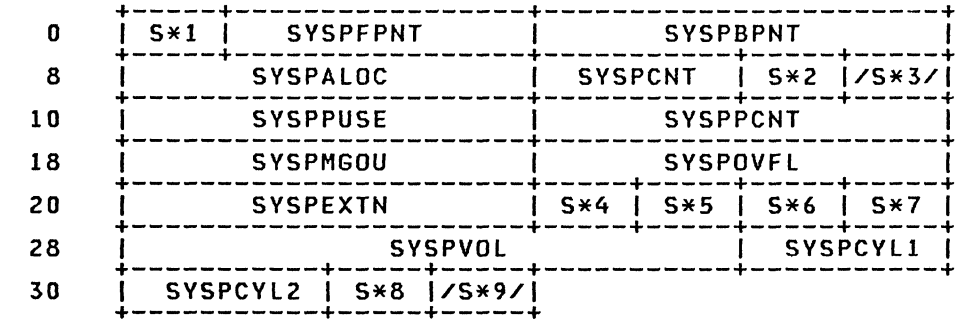
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

DMKSYSCD	004E	..	DMKSYSLD	004D	..	DMKSYSMS	0058	..	LLTTY	....	4
DMKSYSCK	0060	..	DMKSYSLE	004C	..	DMKSYSMU	0028	..	LL1050	....	2
DMKSYSDS	0059	..	DMKSYSLG	001C	..	DMKSYSND	002C	..	LL2741	....	2
DMKSYSDT	0000	..	DMKSYSLL	0050	..	DMKSYSNM	0020	..	LL3066	....	6
DMKSYSDW	0040	..	DMKSYSLR	0070	..	DMKSYSPL	0038	..	LL3210	....	0
DMKSYSES	004F	..	DMKSYSLU	0068	..	DMKSYSTM	0008	..	LL3215	....	0
DMKSYSLA	006C	..	DMKSYSLW	0010	..	DMKSYSUD	0034	..	LL3270	....	6
DMKSYSLB	0030	..	DMKSYSMA	0024	..						

SYSPLIST: SYSTEM PAGE LIST

The SYSPLIST uses information from the SYSPAG macro to define how DASD will be allocated. The SYSPLIST is found in ALLOC copy.



SIZE

LENGTH OF (SYSPVOL+SYSPCYL1 (SYSPVLEN) C

Disp	Name	Len	Key	Description
0	SYSPFLG	0	S*1	SYSPLIST TYPE (SAME AS ALOCFLG)
0	SYSPFPNT	4		FORWARD POINTER
4	SYSPBPNT	4		BACKWARD POINTER
8	SYSPALOC	4		ALOCBLOK POINTER
C	SYSPCNT	2		COUNT OF SPECIFICATION AREAS
E	SYSPFLG2	1	S*2	AREA TYPES SPECIFIED ON THE SYSPAG MACRO
	Values defined in SYSPFLG2			
	80 SYSPPST			PAGING STORAGE SPECIFIED ON AN AREA-SPEC OPERAND. THE CORRESPONDING SYSPVOL FIELD CONTAINS SIX BYTES OF BINARY ZEROES.
	40 SYSPXST			PAGING STORAGE SPECIFIED BY USING THE SYSXSTOR MACRO. THE CORRESPONDING SYSPVOL FIELD CONTAINS SIX BYTES OF BINARY ZEROES.
	20 SYSPUSER			USE DEVICE ORDER SPECIFIED BY USER ON THE SYSPAG MACRO.
F	SYSRSV	1	S*3	RESERVED FOR IBM USE
10	SYSPPUSE	4		NUMBER OF PAGES ALLOCATED ON LEVEL
14	SYSPPCNT	4		NUMBER OF PAGES MOVED TO/FROM LEVEL
18	SYSPMGOU	4		NUMBER OF PAGES MIGRATED OUT OF LEVEL
1C	SYSPOVFL	4		NUMBER OF NON-MIGRATION ALLOCS ON LVL
20	SYSPEXTN	4		ADDRESS OF SYSPEXT

```
 24   SYSPFULL    1 S*4  PERCENT ALLOCATED SPACE ON LEV.
 25   SYSPALL     1 S*5  PERCENT ALLOC. SPACE SYSTEM WIDE
 26   SYSPTOTL    1 S*6  PERCENT PAGE MOVEMENT ON LEVEL
 27   SYSPLVNO    1 S*7  RELATIVE SYSPAG LEVEL NUMBER
 28   SYSPVLST           BIT SUMMARY
 28   SYSPVOL     6      VOLUME SERIAL
 2E   SYSPCYL1    2      STARTING CYLINDER
 30   SYSPCYL2    2      ENDING CYLINDER
 32   SYSPATYP    1 S*8  TYPE OF AREA THIS AREA-SPEC.
   Values defined in SYSPATYP
   80 SYSPPAG            THIS IS A PAGING STORAGE AREA
   40 SYSPDASD           THIS IS A DASD DEVICE AREA
 33   SYSPRSV1    1 S*9  RESERVED FOR IBM USE
```

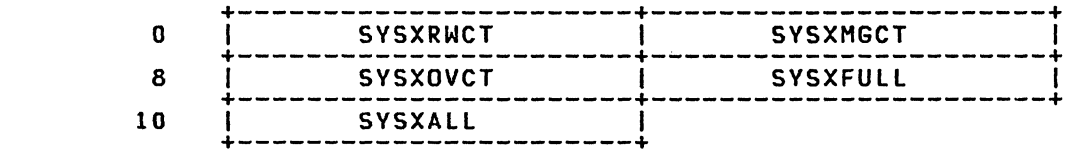
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

```
SYSPALL  0025  ..   SYSPDASD 0032  40   SYSPMGOU 0018  ..   SYSPTOTL 0026  ..
SYSPALOC 0008  ..   SYSPEXTN 0020  ..   SYSPOVFL 001C  ..   SYSPUSER 000E  20
SYSPATYP 0032  ..   SYSPFLG  0000  ..   SYSPPAG  0032  80   SYSPVLEN ....   C
SYSPBPNT 0004  ..   SYSPFLG2 000E  ..   SYSPPCNT 0014  ..   SYSPVLST 0027  28
SYSPCNT  000C  ..   SYSPFPNT 0000  ..   SYSPPST  000E  80   SYSPVOL  0028  ..
SYSPCYL1 002E  ..   SYSPFULL 0024  ..   SYSPPUSE 0010  ..   SYSPXST  000E  40
SYSPCYL2 0030  ..   SYSPLVNO 0027  ..   SYSPRSV1 0033  ..   SYSRSV   000F  ..
```

SYSPEXT: SYSPLIST EXTENSION

SYSPEXT is an extension of the SYSPLIST that is used to save migration history data for use by DMKSTP. SYPEXT is found in ALLOC COPY.



SIZE

SIZE OF SYSPEXT (SYSXSIZE) 14

Disp	Name	Len	Key	Description
0	SYSXRWCT	4		NUMBER OF READS/WRITES ON LEVEL
4	SYSXMGCT	4		NUMBER OF MIGRATIONS FROM LEVEL
8	SYSXOVCT	4		NUMBER OF OVERFLOW ALLOCATIONS TO LVL
C	SYSXFULL	4		PERCENT OF SPACE ALLOCATED ON THIS LEVEL
10	SYSXALL	4		PERCENT OF TOTAL SPACE ALLOCATED

THE FOLLOWING EQUATES ARE DEFINED
TO REFERENCE THE FIVE HISTORY AREAS

```
SYSXCKP  EQU   0*SYSXSIZE     OFFSET TO CHECKPOINT DATA
SYSXSHRT EQU   1*SYSXSIZE     OFFSET TO SHORT-TERM DATA
SYSXCDEL EQU   2*SYSXSIZE     OFFSET TO CURRENT DATA
SYSXPDEL EQU   3*SYSXSIZE     OFFSET TO PREVIOUS DATA
SYSXLONG EQU   4*SYSXSIZE     OFFSET TO LONG-TERM DATA
```

CROSS REFERENCE

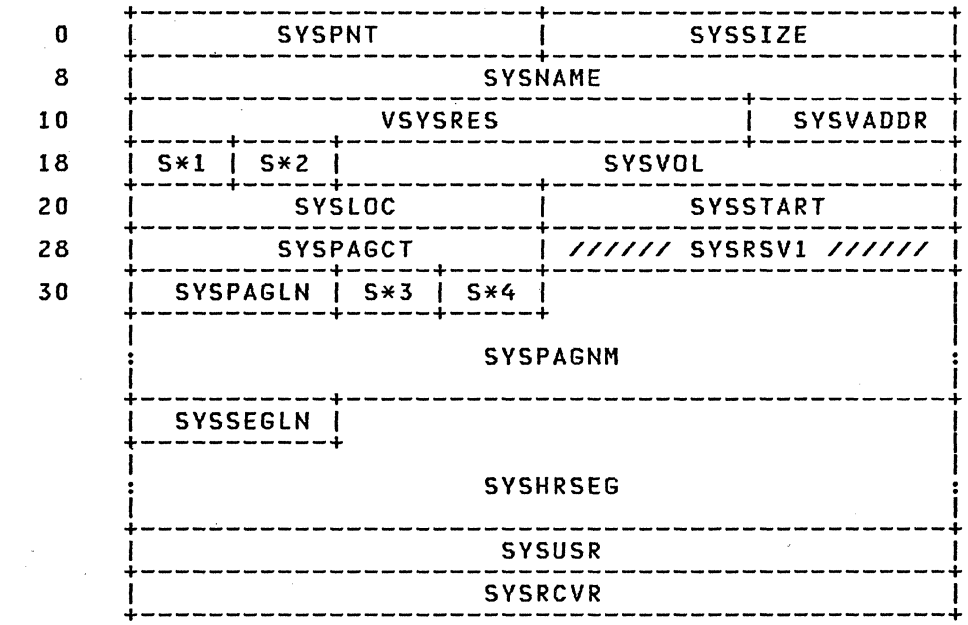
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
SYSXALL  0010  ..   SYSXFULL 000C  ..   SYSXOVCT 0008  ..   SYSXSHRT 0010  14
SYSXCDEL 0010  28   SYSXLONG 0010  50   SYSXPDEL 0010  3C   SYSXSIZE ....  14
SYSXCKP  0010  00   SYSXMGCT 0004  ..   SYSXRWCT 0000  ..
```

SYSTBL: SYSTEM NAMED TABLE

SYSTBL contains the system and DASD information required to load a saved system by name. SYSTBL is built during system generation in DMKSNT using the NAMESYS macro. SYSTBL is found in SYSTBL copy.



Disp	Name	Len	Key	Description
0	SYSPNT	4		ADDRESS OF NEXT ENTRY
4	SYSSIZE	4		MINIMUM CORE SIZE NEEDED TO RUN SYSTEM
8	SYSNAME	8		SYSTEM NAME
10	VSYSRES	6		VOLUME SERIAL OF DASD WITH USERS SYSTEM
16	SYSVADDR	2		VIRTUAL ADDRESS OF VSYSRES
18	SYSPRMR1	1	S*1	FIRST REGISTER OF IPL PARAMETER RANGE
19	SYSPRMR2	1	S*2	LAST REGISTER OF IPL PARAMETER RANGE
1A	SYSVOL	6		VOLUME SERIAL OF DASD WITH SAVED PAGES
20	SYSLOC	4		LOCATION ON VSYSRES OF USERS SYSTEM
24	SYSSTART	4		CCPD OF FIRST PAGE ON SYSVOL
28	SYSPAGCT	4		TOTAL NUMBER OF PAGES SAVED
2C	SYSRSV1	4		RESERVED FOR IBM USE

30	SYSPAGLN	2		NUMBER OF ENTRIES IN SYSPAGNM
32	SYSSEQ	1	S*3	VMSAVE PRIORITY SEQUENCE
33	SYSFLAG	1	S*4	NAMED SYSTEM FLAG BYTE

Values defined in SYSFLAG

80	SYSPROT	UNPROTECTED SHARED SEGMENTS
40	SYSGROUP	VIRTUAL MACHINE GROUP

34	SYSPAGNM	4		AN ENTRY FOR A RANGE OF PAGES TO BE SAVED
38	SYSSEGLN	2		NUMBERS OF ENTRIES IN SYSHRSEG
3A	SYSHRSEG	1		ONE BYTE FOR EACH SEGMENT TO BE SHARED
3B	SYSUSR	8		VMSAVE OWNER ID
43	SYSRCVR	8		VMSAVE RECEIVER ID

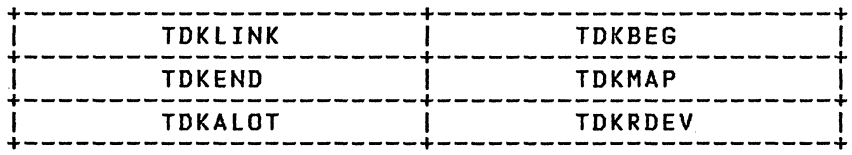
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

SYSFLAG	0033	..	SYSPAGLN	0030	..	SYSRCVR	0043	..	SYSSTART	0024	..
SYSGROUP	0033	40	SYSPAGNM	0034	..	SYSRSV1	002C	..	SYSUSR	003B	..
SYSHRSEG	003A	..	SYSPNT	0000	..	SYSSEGLN	0038	..	SYSVADDR	0016	..
SYSLOC	0020	..	SYSPRMR1	0018	..	SYSSEQ	0032	..	SYSVOL	001A	..
SYSNAME	0008	..	SYSPRMR2	0019	..	SYSSIZE	0004	..	VSYSRES	0010	..
SYSPAGCT	0028	..	SYSPROT	0033	80						

TDKBLOK: TEMPORARY DISK CONTROL BLOCK

TDKBLOK contains the beginning and ending cylinder or block number of the T-disk space. There is one TDKBLOK for each T-disk entry. TDKBLOK is defined in the CPI. TDKBLOK is found in TDKBLOK copy.



SIZE

TDKBLOK SIZE IN DOUBLEWORDS (TDKSIZE) 03

Disp	Name	Len	Key	Description
0	TDKLINK	4		TDKBLOK POINTER
4	TDKBEG	4		BEGINNING CYLINDER OR BLOCK
8	TDKEND	4		END CYLINDER OR BLOCK NUMBER
C	TDKMAP	4		POINTER TO BYTE IN ALOCMAP
10	TDKALOT	4		ADDRESS OF ALOTBLOK - ALOCBLOK
14	TDKRDEV	4		ADDRESS OF THE RDEVBLOK

CROSS REFERENCE

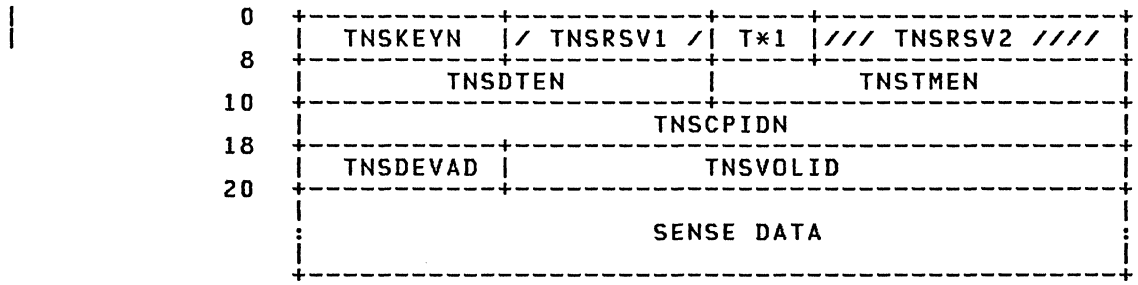
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
TDKALOT  0010 ..    TDKEND   0008 ..    TDKMAP   000C ..    TDKSIZE  0000 03
TDKBEG   0004 ..    TDKLINK  0000 ..    TDKRDEV  0014 ..
```

TNSREC: "T" TYPE RECORD FORMAT (ENVIRONMENTAL RECORDING)

TNSREC is used by DMKIOE to record miscellaneous data records on CP's I/O error recording cylinders. The record contains sense data applicable to a specific I/O device. TNSREC is found in TNSREC copy.



Disp	Name	Len	Key	Description
0	TNSKEYN	2		CLASS
2	TNSRSV1	2		RESERVED FOR IBM USE
4	TNSSWS3	1	T*1	SWITCH BYTE
5	TNSRSV2	3		RESERVED FOR IBM USE
8	TNSDTEN	4		DATE
C	TNSTMEN	4		TIME
10	TNSCPIDN	8		PROCESSOR ID AND SERIAL NUMBER
18	TNSDEVAD	2		DEVICE ADDRESS
1A	TNSVOLID	6		VOLUME SERIAL
1C	TNS3800	264		ERROR LOG DATA
20	TNSSNS1	24		SENSE BYTES
20	TNSBLKLN	2		BLOCK LENGTH
22	TNS8809S	32		SENSE BYTES
26	TNS3480S	32		SENSE BYTES
38	TNSSNS2	24		SENSE BYTES
50	TNSSNS3	24		SENSE BYTES
68	TNSSNS4	24		SENSE BYTES
80	TNSSNS5	24		SENSE BYTES
98	TNSSNS6	24		SENSE BYTES

```
  B0    TNSSNS7   24       SENSE BYTES
```

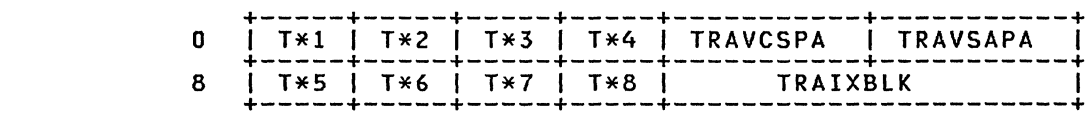
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
TNSBLKLN 0020  ..   TNSSNS1  0020  ..   TNSSNS6  0098  ..   TNSVOLID 001A  ..
TNSCPIDN 0010  ..   TNSSNS2  0038  ..   TNSSNS7  00B0  ..   TNS3480S 0026  ..
TNSDEVAD 0018  ..   TNSSNS3  0050  ..   TNSSWS3  0004  ..   TNS3800  001C  ..
TNSDTEN  0008  ..   TNSSNS4  0068  ..   TNSTMEN  000C  ..   TNS8809S 0022  ..
TNSKEYN  0000  ..   TNSSNS5  0080  ..
```

TRACEVCS: INTER-USER COMMUNICATIONS VEHICLE TRACE AREA

TRACEVCS contains all the information about the transactions for Inter-User Communications Vehicle. TRACEVCS is found in TRACEVCS copy.



Disp	Name	Len	Key	Description
0	TRATYPE	1	T*1	SNA CCS TRACE ELEMENT
1	TRATNTYP	1	T*2	TYPE OF TRANSACTION

Values defined in TRATNTYP

00	TRACCEPT	ACCEPT
15	TRACTLBK	SNA CONTROL BLOCK CHAIN INVALID
14	TRAERRSV	ERROR IN USER ENVIRONMENT (USER SEVERED)
13	TRAVSALE	LOGIC ERROR IN VCNA WEBLOK
12	TRALUCON	CONNECT FROM VCNA FOR LU
11	TRAVSAMC	MESSAGE COMPLETE FROM VCNA (1WAY SEND)
10	TRAVSASV	SEVER FROM VCNA
0F	TRAVSARM	RESUME FROM VCNA
0E	TRAVSMCN	CONNECT FOR VSM
0D	TRAVSAQS	QUIESCE FROM VCNA
0C	TRAVSARP	REPLY FROM VCNA
0B	TRAVCSLE	LOGIC ERROR IN CCS WEBLOK
0A	TRASEVER	SEVER
09	TRASEND2	SEND 2 WAY
08	TRASEND1	SEND 1 WAY
06	TRAREPLY	REPLY
05	TRAREJCT	REJECT
04	TRARCEIV	RECEIVE
03	TRAPURGE	PURGE
01	TRACNECT	CONNECT

2	TRAMODE	1	T*3	MODE FOR THE TRANSACTION (SEE WEBMODE)
2	TRAUSER1	1	T*3	FIRST BYTE FROM USER DATA FIELD
2	TRATIMER	2	T*3	TIMER VALUE ON VSM CONNECT
3	TRALGAID	1	T*4	LOGICAL MAPPING FOR ATTENTION IDENTIFIER (AID) FOR INBOUND TRANSACTIONS TO VCS (WEBLAID). THE FIELD IS RESERVED FOR OUTBOUND TRANSACTIONS TO VCNA.
3	TRACODE	1	T*4	CODE OF THIS TRANSACTION
3	TRAIPRCD	1	T*4	RETURN CODE FROM IUCV
4	TRAVCSPA	2		THE IUCV PATH ID THAT IDENTIFIES THE CCS SIDE OF THE IUCV PATH FOR THIS TRANSACTION.
6	TRAVSAPA	2		THE IUCV PATH ID THAT IDENTIFIES THE VCNA SIDE OF THE IUCV PATH FOR THIS TRANSACTION

6	TRAMSGLM	2		IUCV MESSAGE LIMIT FOR CONNECT FOR VSM
8	TRAFUNCT	1	T*5	TRANSACTION TO BE PERFORMED
8	TRAUDATA	8	T*5	IUCV USER DATA FIELD
8	TRAINSTR	4		ADDRESS OF LAST INSTRUCTION
9	TRACPSAF	1	T*6	WEBSAFLG ON INBOUND, WEBCPFLG ON OUTBOUND
A	TRAEDCHR	1	T*7	EDITING CHARACTERISTICS (SEE WEBEDIT)
A	TRAUDIT1	1	T*7	IUCV IPAUDIT1 FLAGS FROM IXBLOK
B	TRACHAR	1	T*8	CHARACTER SET (SEE WEBCHAR)
B	TRAUDIT2	1	T*8	IUCV IPAUDIT2 FLAGS FROM IXBLOK
C	TRAIXBLK	4		IUCV IXBLOK ADDRESS
C	TRAVMADR	4		CURRENT VMBLOK ADDRESS

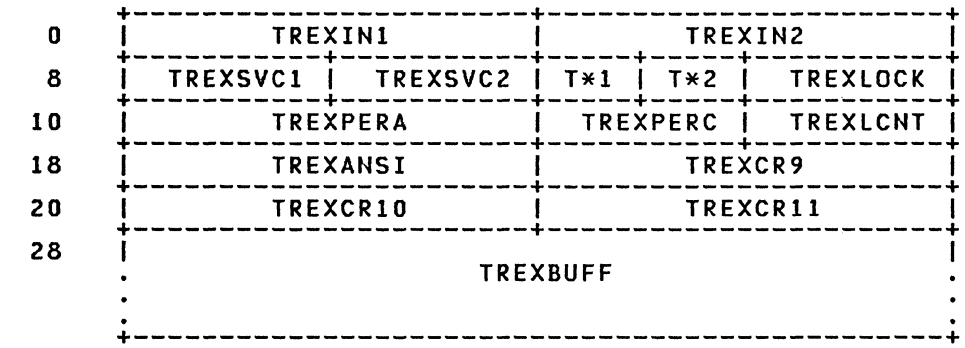
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

TRACCEPT	0001	00	TRAIXBLK	000C	..	TRASEND2	0001	09	TRAVCSPA	0004	..
TRACHAR	000B	..	TRALGAID	0003	..	TRASEVER	0001	0A	TRAVMADR	000C	..
TRACNECT	0001	01	TRALUCON	0001	12	TRATIMER	0002	..	TRAVSALE	0001	13
TRACODE	0003	..	TRAMODE	0002	..	TRATNTYP	0001	..	TRAVSAMC	0001	11
TRACPSAF	0009	..	TRAMSGLM	0006	..	TRATYPE	0000	..	TRAVSAPA	0006	..
TRACTLBK	0001	15	TRAPURGE	0001	03	TRAUDATA	0008	..	TRAVSAQS	0001	0D
TRAEDCHR	000A	..	TRARCEIV	0001	04	TRAUDIT1	000A	..	TRAVSARM	0001	0F
TRAERRSV	0001	14	TRAREJCT	0001	05	TRAUDIT2	000B	..	TRAVSARP	0001	0C
TRAFUNCT	0008	..	TRAREPLY	0001	06	TRAUSER1	0002	..	TRAVSASV	0001	10
TRAINSTR	0008	..	TRASEND1	0001	08	TRAVCSLE	0001	0B	TRAVSMCN	0001	0E
TRAIPRCD	0003	..									

TREXT: VIRTUAL MACHINE TRACING EXTENSION TO VMBLOK

TREXT facilitates the tracing of virtual machine program instructions and interruptions. This block is used whenever the CP TRACE command is invoked. The VMTREXT field of the VMBLOK points to TREXT. TREXT is found in TREXT copy.



SIZE

SIZE OF TREXT IN DOUBLEWORDS (TREXSIZE) OF

Disp	Name	Len	Key	Description
0	TREXIN1	4		FIRST ADDRESS - REPLACED INSTRUCTION
0	TREXPSW	8		OLD PSW FOR PENDING SVC INTERRUPT
4	TREXIN2	4		SECOND ADDRESS - REPLACED INSTRUCTION
8	TREXSVC1	2		DISPLACED HALFWORD - INSTRUCTION ONE
8	TREXINTL	2		INSTRUCTION LENGTH CODE
A	TREXSVC2	2		DISPLACED HALFWORD - INSTRUCTION TWO
A	TREXINTC	2		INTERRUPT CODE FOR PENDING INTERRUPT
C	TREXFLAG	1	T*1	TRACING CONTROL FLAGS

Values defined in TREXFLAG

80	TREXRUN	DO NOT ENTER CFWAIT BETWEEN EVENTS
40	TREXVAT	CALL DMKVATRN TO PUT BACK VIRTUAL DATA
20	TREXNDSP	DISPATCHER SHOULD NOT CALL TRCIT
10	TREXMOR	DO NOT ALLOW IF MORE... STATUS

	D	TREXOUT	1 T*2	TRACE OUTPUT CONTROL FLAGS
		Values defined in TREXOUT		
	80	TREXPRT		OUTPUT TO THE VIRTUAL SPOOL PRINTER
	40	TREXCON		OUTPUT TO VIRTUAL MACHINE CONSOLE
	E	TREXLOCK	2	INDICATES TRACING RIGHT NOW WHEN SET
	10	TREXPERA	4	PER EVENT ADDRESS ON INTERRUPT
	10	TREXNSI	6	ACTUAL NEXT (OR LAST) SEQUENTIAL INSTRUCTION
	14	TREXPERC	2	PER CODE BITS FROM HARDWARE EVENT
	16	TREXLCNT	2	PRINTED OUTPUT LINE COUNT
	18	TREXANSI	4	ADDRESS OF NEXT (OR LAST) SEQUENTIAL INSTRUCTION
	1C	TREXCR9	0	SHADOW CONTROL REGS FOR PER TRACE
	1C	TREXPER	2	PER CONTROL FIELD
	1C	TREXCTL	0	HALFWORD HOLDING TRACING CONTROL BITS
	1C	TREXCTL1	1	FIRST BYTE = SAME AS VMTRCTL IN VMBLOK
	1D	TREXCTL2	1	SECOND BYTE = REMAINING CONTROL BITS
		Values defined in TREXCTL2		
	80	TREXCCW		TRACE VIRTUAL AND REAL CCW
	40	TREXCSW		TRACE VIRTUAL AND REAL CSW
	20	TREXBRAN		TRACE SUCCESSFUL BRANCHES
	10	TREXINST		TRACE ALL INSTRUCTIONS
	08	TREXCCWI		IOBLOK PRESENT FOR CCW TRACE
	1E	TREXPREG	2	PER REGISTER MASK FIELD
	1E	TREXPRNT	2	PRINTER FLAG BITS CORRESPONDING TO TREXCT
	20	TREXCR10	4	ADDRESS RANGE START VALUE
	20	TREXTERM	2	TERMINAL FLAG BITS CORR. TO TREXCTL
	22	TREXRUNF	2	RUN/NORUN FLAG BITS CORR. TO TREXCTL
	24	TREXCR11	4	ADDRESS RANGE ENDING VALUE
	24	TREXPNTR	4	POINTER TO 1ST STACKED TRACE REQUEST IF ANY
	28	TREXBUFF	80	CONSOLE/PRINTER OUTPUT BUFFER (80 BYTES)

CROSS REFERENCE
(Name Disp Value)

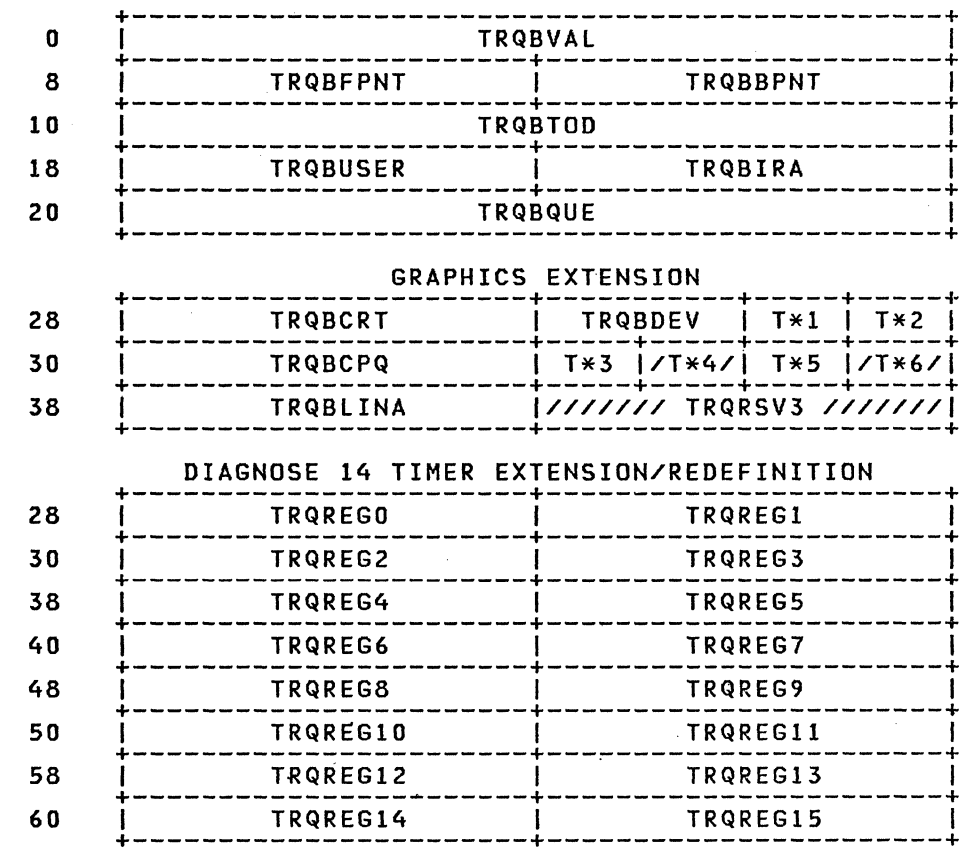
This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

TREXANSI	0018 ..	TREXBUFF	0028 ..	TREXCCWI	001D 08	TREXCR10	0020 ..
TREXBRAN	001D 20	TREXCCW	001D 80	TREXCON	000D 40	TREXCR11	0024 ..

TREXCR9	001C	..	TREXINTL	0008	..	TREXOUT	000D	..	TREXPSW	0000	..
TREXCSW	001D	40	TREXIN1	0000	..	TREXPER	001C	..	TREXRUN	000C	80
TREXCTL	001C	..	TREXIN2	0004	..	TREXPERA	0010	..	TREXRUNF	0022	..
TREXCTL1	001C	..	TREXLCNT	0016	..	TREXPERC	0014	..	TREXSIZE	0000	0F
TREXCTL2	001D	..	TREXLOCK	000E	..	TREXPNTR	0024	..	TREXSVC1	0008	..
TREXFLAG	000C	..	TREXMOR	000C	10	TREXPREG	001E	..	TREXSVC2	000A	..
TREXINST	001D	10	TREXNDSP	000C	20	TREXPRNT	001E	..	TREXTERM	0020	..
TREXINTC	000A	..	TREXNSI	0010	..	TREXPRT	000D	80	TREXVAT	000C	40

TRQBLOK: TOD CLOCK COMPARATOR REQUEST

TRQBLOK manages the system timing facilities. TRQBLOK is found in TIMER copy.



SIZE

SIZE OF EXTENSION IN BYTES (CRTEXTSZ)	10
SIZE OF TRQBLOK IN DOUBLEWORDS (TRQBSIZE)	05
SIZE OF EXTENSION IN DOUBLEWORDS (CRTEXT)	02
SIZE OF BLOCK WITH REGULAR EXTENSION (TRQREGSZ)	68

Disp	Name	Len	Key	Description
000	TRQBVAL	008		TOD CLOCK COMPARATOR VALUE FOR INTERRUPT
008	TRQBFPNT	004		POINTER TO NEXT TRQBLOK

```
 00C   TRQBBPNT 004      POINTER TO PREVIOUS TRQBLOK
    Values defined in TRQBBPNT
|   80 TRQCHN            TRQBLOK ON DMKSCHTQ CHAIN
 010   TRQBTOD  008      TOD CLOCK VALUE WHEN TRQBLOK IS QUEUED
 018   TRQBUSER 004      ADDRESS OF VMBLOK FOR USER
 01C   TRQBIRA  004      INTERRUPT RETURN ADDRESS
 020   TRQBQUE  008      TIME LEFT IN QUEUE; TRK. VIRT. CPU TIMER
 028   TRQBCRT  004      GRAPHIC DEVICE RETURN IRA
 028   TRQBSAVE 004      ADDRESS OF MODULE SAVEAREA
 028   TRQREGS  004      SAVE AREA FOR REGISTERS
 028   TRQREG0  004      GENERAL PURPOSE REGISTER 0

| 028   TRQCACHP 004      POINTER TO CACHIOB
 02C   TRQBDEV  002      GRAPHIC DEVICE DEVICE ADDRESS
 02C   TRQREG1  004      GENERAL PURPOSE REGISTER 1

 02E   TRQBFLAG 001 T*1  GRAPHIC DEVICE FLAGS
    Values defined in TRQBFLAG
    80 CRTFMT            SCREEN FORMATTED VM/370 ONLINE
    40 CRTDIAG           SCREEN WRITTEN WITH DIAGNOSE X'19'
    20 CRTALRM           SCREEN HAS ALARM MESSAGE
    10 CRTWNG            SCREEN HAS MORE...WARNING
    08 CRTCARD           DATA FROM CARD READER
    04 CRTUSEWA          E/W ALTERNATE OR E/W IS NEEDED.
    02 CRTAPL            APL READ BUFFER ALLOCATED
    01 CRTSIO            USER ISSUE DIAGNOSE TO INPUT AREA
    01 CRTAIO            TIMER INTERRUPT PENDING AFTER I/O COMPLETES
 02E   TRQNAME  002      RESOURCE IDENTIFICATION
    Values defined in TRQNAME
    FF TRQBPOLL          TIMER INTERRUPT FOR GENERAL POLL
 02F   TRQBLINE 001 T*2  WORKING VALUE - SCREEN LINE NUM.
 030   TRQBCPQ  004      DEFERRED CONTASK QUEUE

 030   TRQREG2  004      GENERAL PURPOSE REGISTER 2
```

```
034   TRQBFLG2 001 T*3  FULL SCREEN SUPPORT FLAGS

   Values defined in TRQBFLG2

   80 CRTFSSA           SYSTEM AVAILABLE
   40 CRTFSII           INPUT INHIBITED
   20 TRQBPA1R          FLAG FOR PA1 IN FULL SCREEN MODE
   10 CRTPPA1           PASS PA1 KEY TO VIRTUAL MACHINE
   08 TRQBCLIN          INPUT AREA MUST BE CLEARED
   04 TRQBCHIO          CHAINED CONTASKS PRESENT

034   TRQREG3           GENERAL PURPOSE REGISTER 3

035   TRQBRSV1 001 T*4  RESERVED FOR IBM USE

036   TRQBFLG3 001 T*5  ADDITIONAL GRAPHIC DEVICE FLAGS

   Values defined in TRQBFLG3

   80 TRQBLOGP          LOGOFF PENDING; PRIOR CHAN ERROR

037   TRQBRSV2 001 T*6  RESERVED FOR IBM USE

038   TRQBLINA 004      ADDRESS OF LOGO INPUT DATA

038   TRQREG4  004      GENERAL PURPOSE REGISTER 4

03C   TRQRSV3  004      RESERVED FOR IBM USE

03C   TRQREG5  004      GENERAL PURPOSE REGISTER 5

040   TRQREG6  004      GENERAL PURPOSE REGISTER 6

044   TRQREG7  004      GENERAL PURPOSE REGISTER 7

048   TRQREG8  004      GENERAL PURPOSE REGISTER 8

04C   TRQREG9  004      GENERAL PURPOSE REGISTER 9

050   TRQREG10 004      GENERAL PURPOSE REGISTER 10

054   TRQREG11 004      GENERAL PURPOSE REGISTER 11

058   TRQREG12 004      GENERAL PURPOSE REGISTER 12

05C   TRQREG13 004      GENERAL PURPOSE REGISTER 13

060   TRQREG14 004      GENERAL PURPOSE REGISTER 14

064   TRQREG15 004      GENERAL PURPOSE REGISTER 15

   Values defined in TRQREG15

   0D TRQREGSD          DOUBLEWORD SIZE WITH REGULAR EXTENSION
```

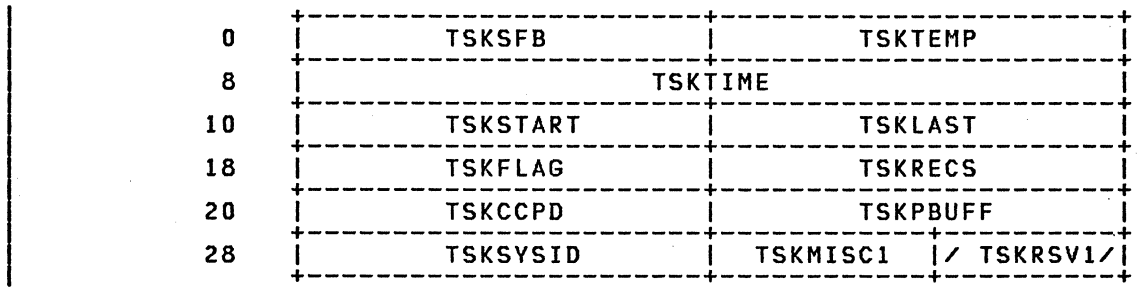
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

CRTAIO	002E	01	TRQBCHIO	0034	04	TRQBQUE	0020		TRQREG1	002C
CRTALRM	002E	20	TRQBCLIN	0034	08	TRQBRSV1	0035		TRQREG10	0050
CRTAPL	002E	02	TRQBCPQ	0030		TRQBRSV2	0037		TRQREG11	0054
CRTCARD	002E	08	TRQBCRT	0028		TRQBSAVE	0028		TRQREG12	0058
CRTDIAG	002E	40	TRQBDEV	002C		TRQBSIZE	0000	05	TRQREG13	005C
CRTEXT	0000	02	TRQBFLAG	002E		TRQBTOD	0010		TRQREG14	0060
CRTEXTSZ	0000	10	TRQBFLG2	0034		TRQBUSER	0018		TRQREG15	0064
CRTFMT	002E	80	TRQBFLG3	0036		TRQBVAL	0000		TRQREG2	0030
CRTFSII	0034	40	TRQBFPNT	0008		TRQCACHP	0028		TRQREG3	0034
CRTFSSA	0034	80	TRQBIRA	001C		TRQCHN	0008	80	TRQREG4	0038
CRTPPA1	0034	10	TRQBLINA	0038		TRQNAME	002E		TRQREG5	003C
CRTSIO	002E	01	TRQBLINE	002F		TRQREGS	0028		TRQREG6	0040
CRTUSEWA	002E	04	TRQBLOGP	0036	80	TRQREGSD	0064	0D	TRQREG7	0044
CRTWNG	002E	10	TRQBPA1R	0034	20	TRQREGSZ	0000	68	TRQREG8	0048
TRQBBPNT	000C		TRQBPOLL	002E	FF	TRQREG0	0028		TRQREG9	004C

TSKBLOK: SPOOL FILE TASK BLOCK

TSKBLOK is used to start multiple I/O tasks when the spool file allocation records are being rebuilt during a checkpoint start. TSKBLOK is found in SPOOL copy.



SIZE

SIZE OF TSKBLOK IN BYTES (TSKSIZEB) 30
SIZE OF TSKBLOK IN DBL WORDS (TSKSIZE) 6

Disp	Name	Len	Key	Description
0	TSKSFB	4		REAL ADDRESS OF THE SFBLOK
4	TSKTEMP	4		WORK AREA FOR TASKS
8	TSKTIME	8		COPY OF SFBTIME FOR VERIFICATION
10	TSKSTART	4		POINTER TO FIRST SPLINK
14	TSKLAST	4		POINTER TO LAST SPLINK
18	TSKFLAG	0		FLAG BYTES
18	TSKFLAG1	1		USED AS A COPY OF SFBLOK FLAGS
19	TSKFLAG2	1		TASK STATUS FLAGS
1A	TSKFLAG3	1		FIRST BYTE OF SFBPNT FIELD
	Values defined in TSKFLAG3			
	80 TSKPROC			TSKBLOK BEING PROCESSED
	40 TSKCOMP			TSKBLOK COMPLETED OK
	20 TSKFAIL			TSKBLOK RECONSTRUCTION FAILED
1B	TSKFLAG4	1		SFBFLAG2
1C	TSKRECS	4		NUMBER OF SPLINKS
20	TSKCCPD	4		CURRENT SPLINK CCPD
24	TSKPBUFF	4		PREVIOUS SPLINK CCPD
28	TSKSYSID	4		COPY OF SFBSYSID

```
|  2C    TSKMISC1    2        SFBMISC1

|  2E    TSKRSV1     2        RESERVED FOR IBM USE
```

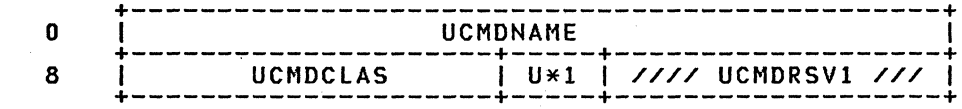
| CROSS REFERENCE
| (Name Disp Value)

| This cross reference contains all the labels defined above
| as well as any general equates the copy file may contain.

| TSKCCPD 0020 .. | TSKFLAG3 001A .. | TSKPROC 001A 80 | TSKSIZEB 30
| TSKCOMP 001A 40 | TSKFLAG4 001B .. | TSKRECS 001C .. | TSKSTART 0010 ..
| TSKFAIL 001A 20 | TSKLAST 0014 .. | TSKRSV1 002E .. | TSKSYSID 0028 ..
| TSKFLAG 0018 .. | TSKMISC1 002C .. | TSKSFB 0000 .. | TSKTEMP 0004 ..
| TSKFLAG1 0018 .. | TSKPBUFF 0024 .. | TSKSIZE .... 6 | TSKTIME 0008 ..
| TSKFLAG2 0019 ..

UCMDBLOK: USER COMMAND CLASS CONTROL BLOCK

UCMDBLOK maps the internal class override records on the class override directory pages. UCMDBLOK is found in UDIRECT copy.



SIZE

SIZE OF UCMDBLOK IN BYTES (UCMDSIZE) 10

Disp	Name	Len	Key	Description
0	UCMDNAME	8		COMMAND NAME BUFFER
8	UCMDCLAS	4		CLASS OVERRIDE VALUE
C	UCMDTYPE	1	U*1	FUNCTION GROUP TYPE VALUE
D	UCMDRSV1			RESERVED FOR IBM USE

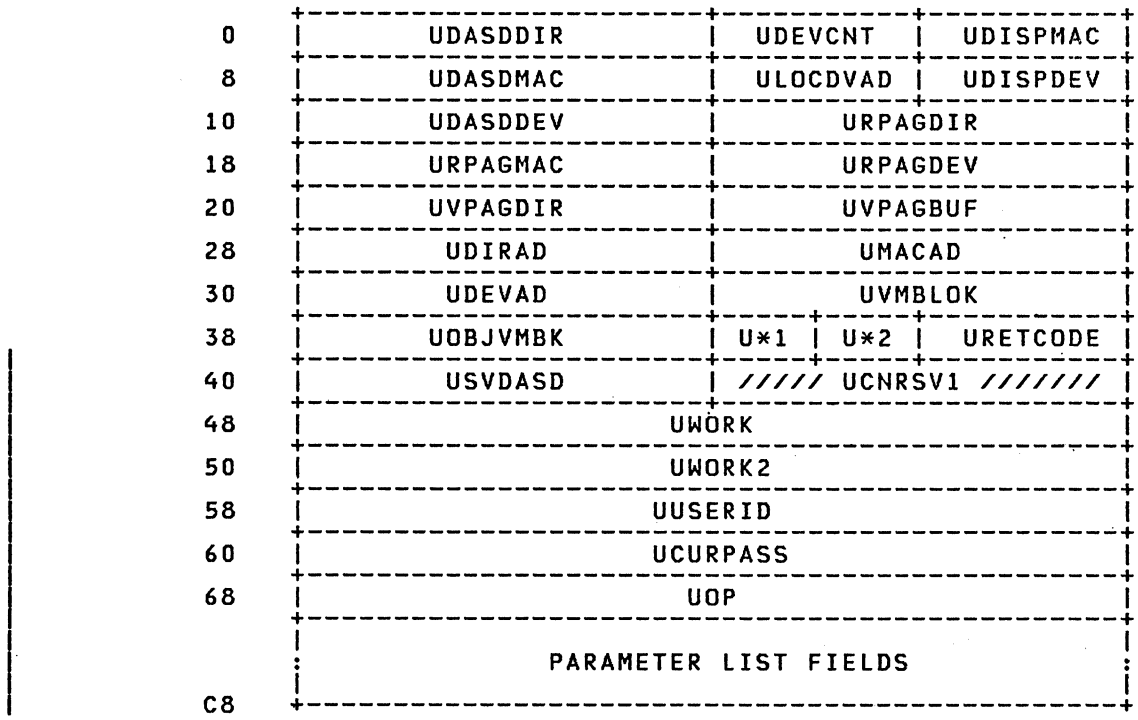
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

UCMDCLAS 0008 .. UCMDRSV1 000D .. UCMDSIZE .... 10 UCMDTYPE 000C
UCMDNAME 0000 ..

UCNTRL: UPDATE CONTROL BLOCK

UCNTRL contains parameters used to support the Directory Update-In- Place function. UCNTRL is found in UCNTRL copy.



SIZE

SIZE OF PARAMETER AREA IN BYTES (UIPARMSZ) 70
SIZE OF UCNTRL IN DOUBLEWORDS (UCNTRLSZ) 19

Disp	Name	Len	Key	Description
0	UDASDDIR	4		UDIR DASD PAGE ADDRESS (0CCCPPDD)
4	UDEVCNT	2		NUMBER OF DEVICES
6	UDISPMAC	2		UMAC DISPLACEMENT INTO PAGE
8	UDASDMAC	4		UMAC DASD PAGE ADDRESS (0CCCPPDD)
C	ULOCDVAD	2		DEVICE ADDRESS TO LOCATE
E	UDISPDEV	2		UDEV DISPLACEMENT INTO PAGE
10	UDASDDEV	4		UDEV DASD PAGE ADDRESS (0CCCPPDD)
10	UDASDIPL	4		UIPL DASD PAGE ADDRESS (0CCCPPDD)

14	URPAGDIR	4		UDIR REAL STORAGE PAGE ADDRESS
18	URPAGMAC	4		UMAC REAL STORAGE PAGE ADDRESS
1C	URPAGDEV	4		UDEV REAL STORAGE PAGE ADDRESS
1C	URPAGXIP	4		XIPL REAL STORAGE PAGE ADDRESS
20	UVPAGDIR	4		UDIR VIRTUAL STORAGE PAGE ADDRESS
24	UVPAGBUF	4		UMAC/UDEV VIRTUAL STORAGE PAGE ADDRESS
28	UDIRAD	4		REAL ADDRESS OF UDIRBLOK
2C	UMACAD	4		REAL ADDRESS OF UMACBLOK
30	UDEVAD	4		REAL ADDRESS OF UDIRBLOK
30	UXIPLAD	4		REAL ADDRESS OF UIPLBLOK
34	UVMBLOK	4		ADDRESS OF CALLER'S VMBLOK
38	UOBJVMBK	4		ADDRESS OF OBJECT USERID'S VMBLOK
3C	UFLAGS	1	U*1	FLAG FIELD

Values defined in UFLAGS

80	UDIRF	OPERATION UPDATES UDIR BLOCK
40	UMACF	OPERATION UPDATES UMAC BLOCK
20	UDEVF	OPERATION UPDATES UDEV BLOCK
08	UNOUPF	NO UPDATE FLAG
04	URECMP	STATUS OF SWPRECMP
01	UTESTMD	TEST MODE (NO UPDATING)

3D	UDEVCODE	1	U*2	DEVICE CODE FROM DASD ADDRESS (0CCCPPDD)
3E	URETCODE	2		RETURN CODE
40	USVDASD	4		UDIR DASD ADDRESS FROM SWPTABLE
44	UCNRSV1	4		RESERVED FOR IBM USE
48	UWORK	8		WORK AREA
50	UWORK2	8		SECONDARY WORK AREA
58	UIPARMS	0		START OF USER INPUT
58	UUSERID	8		USERID
60	UCURPASS	8		CURRENT LOGON PASSWORD
68	UOP	8		OPERATION
70	UVARIABL	0		START OF VARIABLE PARAMETER LIST FIELDS
70	UNEWPASS	8		FOR 'LOGPASS'
70	USTORAGE	8		FOR 'STORAGE'
70	UPRIVLGE	32		FOR UP TO 32 PRIVILEGE CLASSES
70	UPRIOR	2		FOR PRIORITY

```
  70   UEDITCH     4       FOR 'EDITCHAR' (LE,LD,CD,ES)
  70   UIPL        8       FOR 'IPL'
  70   UACCOUNT    8       FOR 'ACCOUNT'
  70   UDISTRIB    8       FOR DISTRIBUTION INFORMATION
  70   UMDISKAD    3       FOR 'MDISK' ADDRESS
  70   USCRCPO    16       SCREEN COLOR AND HIGHLIGHT FOR CP OUTPUT
  70   UOPTIONS   80       FOR UP TO 9 OPTIONS
  73   UMDISKMD    3       FOR 'MDISK' LINK MODE
  76   UMDISKRP    8       FOR 'MDISK' READ PASSWORD
  78   UIPLOP      8       FOR OPERATION
  7E   UMDISKWP    8       FOR 'MDISK' WRITE PASSWORD
  80   UIPLPRMS   48       FOR 'PARMS'
  80   USCRVMO    16       SCREEN COLOR AND HIGHLIGHT FOR VM OUTPUT
  86   UMDISKMP    8       FOR 'MDISK' MULTIPLE PASSWORD
  90   USCRINR    16       SCREEN COLOR AND HIGHLIGHT FOR INPUT REDISPLAY
  A0   USCRINA    16       SCREEN COLOR AND HIGHLIGHT FOR INPUT AREA
  B0   USCRSTA    16       SCREEN COLOR AND HIGHLIGHT FOR STATUS AREA
```

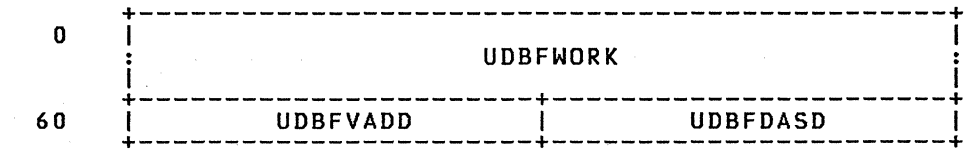
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
| UACCOUNT 0070  ..  | UDISTRIB 0070  ..  | UMDISKWP 007E  ..  | USCRINA  00A0  ..
| UCNRSV1  0044  ..  | UEDITCH  0070  ..  | UNEWPASS 0070  ..  | USCRINR  0090  ..
| UCNTRLSZ ....  19    UFLAGS   003C  ..    UNOUPF   003C  08  | USCRSTA  00B0  ..
| UCURPASS 0060  ..  | UIPARMS  0058  ..    UOBJVMBK 0038  ..  | USCRVMO  0080  ..
  UDASDDEV 0010  ..    UIPARMSZ ....  70  | UOP      0068  ..  | USTORAGE 0070  ..
  UDASDDIR 0000  ..  | UIPL     0070  ..  | UOPTIONS 0070  ..    USVDASD  0040  ..
  UDASDIPL 0010  ..  | UIPLOP   0078  ..  | UPRIOR   0070  ..    UTESTMD  003C  01
  UDASDMAC 0008  ..  | UIPLPRMS 0080  ..  | UPRIVLGE 0070  ..  | UUSERID  0058  ..
  UDEVAD   0030  ..    ULOCDVAD 000C  ..    URECMP   003C  04  | UVARIABL 0070  ..
| UDEVCNT  0004  ..    UMACAD   002C  ..    URETCODE 003E  ..    UVMBLOK  0034  ..
  UDEVCODE 003D  ..    UMACF    003C  40    URPAGDEV 001C  ..    UVPAGBUF 0024  ..
  UDEVF    003C  20  | UMDISKAD 0070  ..    URPAGDIR 0014  ..    UVPAGDIR 0020  ..
  UDIRAD   0028  ..  | UMDISKMD 0073  ..    URPAGMAC 0018  ..  | UWORK    0048  ..
  UDIRF    003C  80  | UMDISKMP 0086  ..    URPAGXIP 001C  ..  | UWORK2   0050  ..
  UDISPDEV 000E  ..  | UMDISKRP 0076  ..  | USCRCPO  0070  ..    UXIPLAD  0030  ..
  UDISPMAC 0006  ..
```

UDBFBLOK: USER DIRECTORY BUFFER BLOCK

UDBFBLOK is used as a buffer for user device block data in user directory access operations. UDBFBLOK is found in UDIRECT copy.



SIZE

UDBFBLOK SIZE IN DOUBLEWORDS (UDBFSIZE) D

Disp	Name	Len	Key	Description
0	UDBFWORK	96		WORK AREA
60	UDBFVADD	4		VIRTUAL ADDRESS OF LAST DIRECTORY PAGE
64	UDBFDASD	4		DASD ADDRESS OF LAST DIRECTORY PAGE

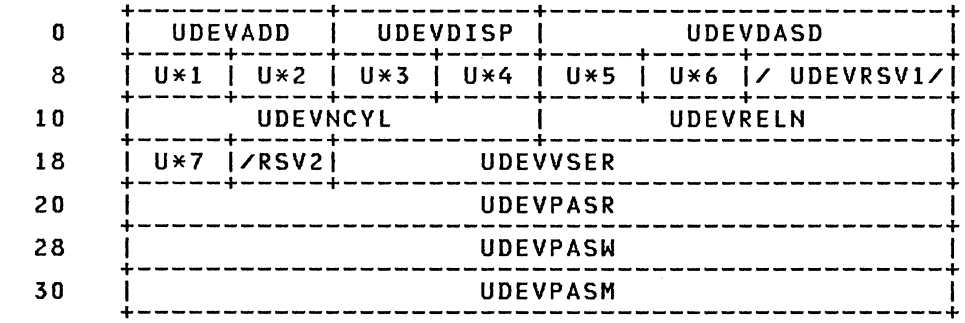
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

UDBFDASD 0064 .. | UDBFSIZE .... D | UDBFVADD 0060 .. UDBFWORK 0000 ..

UDEVBLOK: USER DEVICE BLOCK

UDEVBLOK supplies the information about the virtual machine's virtual devices and the operational parameters for its use (such as DASD access passwords, read/write link mode, spool device, T-disk space versus dedicated space, and other parameters). UDEVBLOK is found in UDIRECT copy.



SIZE

UDEVBLOK SIZE IN DOUBLEWORDS (UDEVSIZE) 7
SHORT UDEVBLOK SIZE IN DOUBLEWORDS (UDEVSSZE) 4

Disp	Name	Len	Key	Description
0	UDEVADD	2		VIRTUAL DEVICE ADDRESS
2	UDEVDISP	2		DISPLACEMENT OF THE NEXT BLOCK
4	UDEVDASD	4		DASD ADDRESS OF THE NEXT BLOCK
8	UDEVSTAT	1	U*1	DEVICE STATUS INFORMATION

Values defined in UDEVSTAT

80	UDEVDED	DEVICE TO BE DEDICATED TO THIS USER
40	UDEVTDSK	T-DISK TO BE ALLOCATED
20	UDEVLONG	DEVICE BLOCK IS FULL LENGTH
10	UDEVLKDV	DEVICE TO BE LINKED (AT LOGON TIME)
08	UDEVSPOO	DEVICE IS A SPOOL DEVICE
04	UDEVSHRD	DEVICE USES A SHARED SUBCHANNEL
02	UDEVVRR	VIRTUAL RESERVE RELEASE REQUESTED
01	UDEVRDEF	DEVICE IS REDEFINE, IF CLASURO

9	UDEVMODE	1	U*2	ACCESS MODE INFORMATION

Values defined in UDEVMODE

80	UDEVLR	READ LINKS ALLOWED
40	UDEVLW	WRITE LINKS ALLOWED
20	UDEVLM	MULT-WRITE LINKS ALLOWED

9	UDEVPRFG	1		3800 FLAG BYTE

Values defined in UDEVPRFG

```
   80 UDEVBTS            BTS (NOT CFS)
   40 UDEVFULL           REFLECT ALL DATA CHECKS

    A   UDEVTYPC   1 U*3  VIRTUAL DEVICE CLASS

    B   UDEVTYPE   1 U*4  VIRTUAL DEVICE TYPE

    C   UDEVFTR    1 U*5  DEVICE FEATURE CODES

    D   UDEVMDL    1 U*6  DEVICE MODEL NUMBER

    D   UDEVCLAS   1 U*6  SPOOL DEVICE OUTPUT CLASS

    E   UDEVRSV1   2      RESERVED FOR IBM USE

    E   UDEVLINK   2      USER LINK TO DISK

     Values defined in UDEVLINK

   80 UDEVNORA            INIT FOR DEDICATE WITH NO RDEV
   01 UDEVCACH            CACHE ENABLED

    E   UDEVWID    1      FORMS WIDTH CODE

    F   UDEVLEN    1      FORMS LENGTH (1/2-INCHES)

   10   UDEVNCYL   4      VIRTUAL DASD SIZE (CYL/BLOCK)

   10   UDEVLKID   8      USER LINK TO USERID

   14   UDEVRELN   4      VIRTUAL DASD RELOCATION (CYL/BLOCK)

   18   UDEVREMF   1 U*7  DEVICE STATUS BYTE

   19   RSV2       1      RESERVED FOR IBM USE

     Values defined in UDEVREMF

   80 UDEVRDEV            REMOTE DEVICE

   1A   UDEVVSER   6      VOLUME SERIAL NUMBER

   20   UDEVPASR   8      PASSWORD FOR READ ACCESS

   28   UDEVPASW   8      PASSWORD FOR WRITE ACCESS

   30   UDEVPASM   8      PASSWORD FOR MULTIPLE ACCESS
```

CROSS REFERENCE
(Name Disp Value)

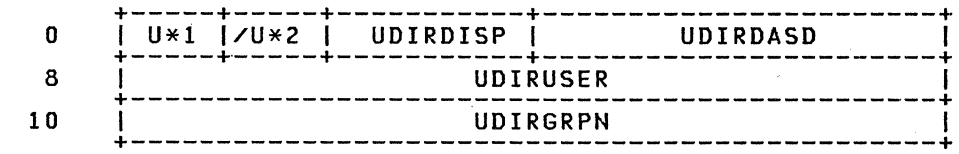
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
RSV2     0019  ..   UDEVFTR  000C  ..   UDEVLR   0009  80   UDEVNORA 000E  80
UDEVADD  0000  ..   UDEVFULL 0009  40   UDEVLW   0009  40   UDEVPASM 0030  ..
UDEVBTS  0009  80   UDEVLEN  000F  ..   UDEVM    ....  10   UDEVPASR 0020  ..
UDEVCACH 000E  01   UDEVLINK 000E  ..   UDEVMDL  000D  ..   UDEVPASW 0028  ..
UDEVCLAS 000D  ..   UDEVLKDV 0008  10   UDEVMODE 0009  ..   UDEVPRFG 0009  ..
UDEVDASD 0004  ..   UDEVLKID 0010  ..   UDEVMR   ....  14   UDEVR    ....   0
UDEVDED  0008  80   UDEVLM   0009  20   UDEVMW   ....  18   UDEVRDEF 0008  01
UDEVDISP 0002  ..   UDEVLONG 0008  20   UDEVNCYL 0010  ..   UDEVRDEV 0018  80
```

UDEVRELN	0014	..	UDEVSIZE	....	7	UDEVTDSK	0008	40	UDEVVSER	001A	..
UDEVREMF	0018	..	UDEVSPOO	0008	08	UDEVTYPC	000A	..	UDEVW	....	8
UDEVRR	....	4	UDEVSSZE	....	4	UDEVTYPE	000B	..	UDEVWID	000E	..
UDEVSHRD	0008	04	UDEVSTAT	0008	..	UDEVVRR	0008	02	UDEVWR	....	C

UDIRBLOK: USER DIRECTORY BLOCK

UDIRBLOK contains data describing the user's command privilege classes, special virtual machine options, terminal line edit values, and other values. UDIRBLOK is found in UDIRECT copy.



SIZE

UDIRBLOK SIZE IN DOUBLEWORDS (UDIRSIZE) 3

Disp	Name	Len	Key	Description
0	UDIRFLG1	1	U*1	DIRECTORY FLAG BITS
	Values defined in UDIRFLG1			
80	UDIRNLG			USER IN NOLOG STATE
40	UDIRPRF			THIS ENTRY IS A PROFILE
1	UDIRRSV1	1	U*2	RESERVED FOR IBM USE
2	UDIRDISP	2		DISPLACEMENT OF THE NEXT BLOCK
2	UDIRLAST	2		DISPLACEMENT TO LAST ENTRY
4	UDIRDASD	4		DASD ADDRESS OF THE NEXT BLOCK
4	UDIRNEXT	4		DASD ADDRESS OF NEXT UDIRBLOK
8	UDIRUSER	8		USERID
10	UDIRGRPN	8		GROUP NAME

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
UDIRDASD 0004  ..   UDIRGRPN 0010  ..   UDIRNLG  0000  80   UDIRSIZE ....   3
UDIRDISP 0002  ..   UDIRLAST 0002  ..   UDIRPRF  0000  40   UDIRUSER 0008  ..
UDIRFLG1 0000  ..   UDIRNEXT 0004  ..
```

UHDRBLOK: USER COMMAND CLASS HEADER RECORD

UHDRBLOK maps the header record on the class override directory pages. UHDRBLOK is found in UDIRECT copy.

SIZE

SIZE OF UHDRBLOK IN BYTES (UHDRSIZE) 8

Disp	Name	Len	Key	Description
1	UHDRRSV1	1		RESERVED FOR IBM USE
2	UHDRUCPG	2		COUNT OF BYTES USED IN BLOCK
4	UHDRDASD	4		DASD ADDRESS OF THE NEXT BLOCK

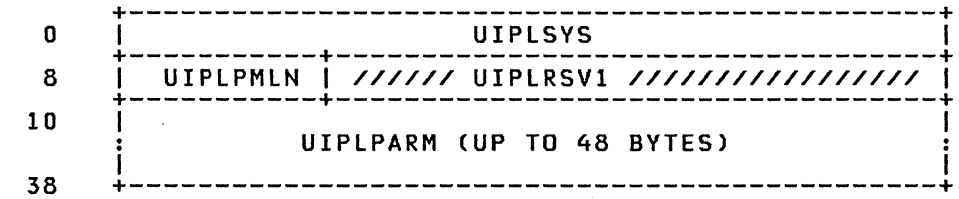
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

UHDRDASD 0004 .. UHDRSIZE .... 8 UHDRUCPG 0002 ..

UIPLBLOK: USER IPL BLOCK

UIPLBLOK contains IPL parameters. UIPLBLOK is found in UDIRECT copy.



SIZE

UIPLBLOK SIZE IN DOUBLEWORDS (UIPLSIZE) 8

Disp	Name	Len	Key	Description
0	UIPLSYS	8		SYSTEM OR DEVICE IPLED AT LOGON
8	UIPLPMLN	2		LENGTH OF PARM FIELD
A	UIPLOPT	1		OPTION BYTE
	Values defined in UIPLOPT			
	80 UIPLPRF			INDICATES A PROFILE IPL STATEMENT
B	UIPLRSV1	5		RESERVED FOR IBM USE
10	UIPLPARM	48		PARM DATA

CROSS REFERENCE

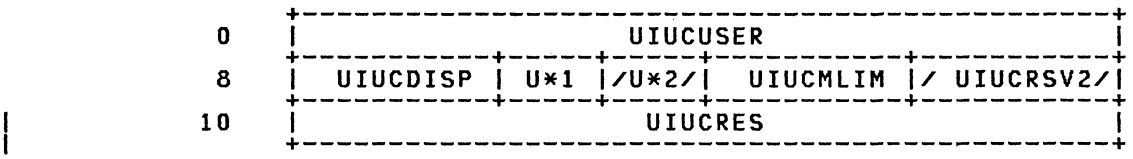
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

UIPLOPT	000A	..	UIPLPMLN	0008	..	UIPLRSV1	000B	..	UIPLSYS	0000	..
UIPLPARM	0010	..	UIPLPRF	000A	80	UIPLSIZE	....	8			

UIUCBLOK: INTER-USER COMMUNICATIONS VEHICLE DIRECTORY BLOCK

UIUCBLOK is a directory block that contains a compacted form of the Inter-User Communications Vehicle (IUCV) authorizations specified in the directory. It is built and read by DMKDIR, the directory processing module. The information is used by the CONNECT and QUERY functions. UIUCBLOK is found in IUCVBLOK copy.



SIZE

UIUCBLOK SIZE IN DOUBLEWORDS (UIUCSIZE) 3

Disp	Name	Len	Key	Description
0	UIUCUSER	8		USERID TO WHICH USER IS AUTHORIZED TO CONNECT
0	UIUCDASD	4		DASD ADDRESS OF NEXT BLOCK
8	UIUCDISP	2		DISPLACEMENT OF NEXT ENTRY
A	UIUCSTAT	1	U*1	FLAGS
	Values defined in UIUCSTAT			
	80 UIUCLAST			LAST ENTRY IN PHYSICAL BLOCK
	40 UIUCPRTY			PRIORITY WAS SPECIFIED
	20 UIUCCHN			MORE ENTRIES FOLLOW FOR THIS USER
	10 UIUCGLBL			GLOBAL SPECIFIED FOR UIUCRES
	08 UIUCREVK			REVOKE SPECIFIED FOR UIUCRES
B	UIUCRSV1	1	U*2	RESERVED FOR IBM USE
C	UIUCMLIM	2		MESSAGE LIMIT
E	UIUCRSV2	2		RESERVED FOR IBM USE
10	UIUCRES	8		RESOURCE ID FOR *IDENT AUTHORITY

CROSS REFERENCE

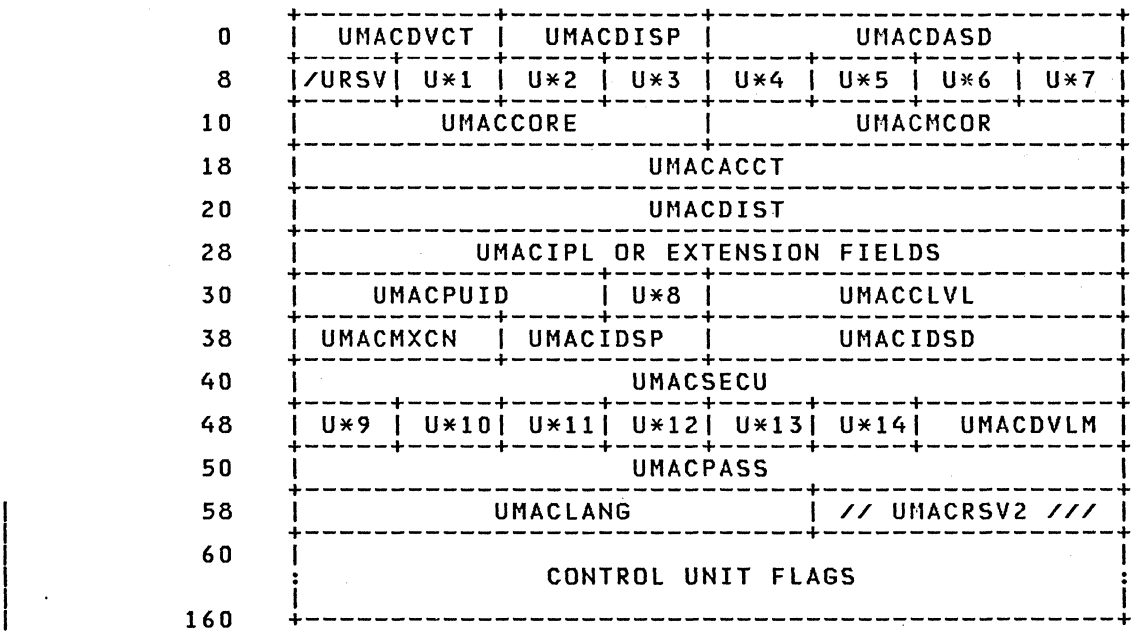
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

UIUCCHN	000A	20	UIUCGLBL	000A	10	UIUCPRTY	000A	40	UIUCSIZE	....	3
UIUCDASD	0000	..	UIUCLAST	000A	80	UIUCRES	0010	..	UIUCSTAT	000A	..
UIUCDISP	0008	..	UIUCMLIM	000C	..	UIUCREVK	000A	08	UIUCUSER	0000	..

UMACBLOK: USER MACHINE BLOCK

UMACBLOK contains the logon parameters for one virtual machine user. This block provides, in addition to the linkage to the user's defined virtual machine device UDEVBLOK, the command privilege class, assigned line edit values, as well as other virtual machine options. UMACBLOK is found in UDIRECT copy.



SIZE

UMACBLOK SIZE IF PROFILE ENTRY (UMACPSIZ) 2C
UMACBLOK SIZE IN DOUBLEWORDS (UMACSIZE) C
NUMBER OF COLOR AND HILIGHT FLAGS (UMACSCNT) 5

Disp	Name	Len	Key	Description
0	UMACADDR	8		UMACBLOK ADDRESS DATA
0	UMACDVCT	2		NUMBER OF DEVICES
2	UMACDISP	2		DISPLACEMENT OF THE NEXT BLOCK
4	UMACDASD	4		DASD ADDRESS OF THE NEXT BLOCK
8	URSV	1		RESERVED FOR IBM USE
9	UMACPRIR	1	U*1	VIRTUAL MACHINE PRIORITY
A	UMACOPT	1	U*2	VIRTUAL MACHINE OPTION FLAGS

Values defined in UMACOPT

```
     80 UMACISAM            ISAM CCW CHECKING OPTION
     40 UMACECOP            EXTENDED CONTROL MODE OPTION
     20 UMACRT              REAL TIMER OPTION
     10 UMACVROP            VIRTUAL EQUAL REAL STORAGE OPTION
     08 UMACACC             ACCOUNTING OPTION
     04 UMACFST             INVALIDATE FIRST SHADOW TABLE ENTRY
     02 UMACNSVC            SVCS NOT HANDLED BY VM ASSIST
     01 UMACBMX             VIRTUAL BLOCK MULTIPLEXER CHANNELS

   B    UMACOPT2    1 U*3   VIRTUAL MACHINE OPTION FLAGS

     Values defined in UMACOPT2

     80 UMACCPU             CPUID ON OPTION STATEMENT
     40 UMACDASF            XMEM OPTION
     20 UMAC370E            370E ASSIST IN OPTION STATEMENT
     10 UMACVMSV            VMSAVE OPTION
     08 UMACPMEN            PMA OPTION
     04 UMACMDEV            MAXDEV ON OPTION STATEMENT
     02 UMACMIH             MIH REFLECTION OPTION
     01 UMACD98             DIAGNOSE 98 OPTION SPECIFIED

   C    UMACVARS   28       UMACBLOK VARIABLE DATA

   C    UMACLEND    1 U*4   TERMINAL LINE END SYMBOL

   D    UMACLDEL    1 U*5   TERMINAL LINE DELETE SYMBOL

   E    UMACCDEL    1 U*6   TERMINAL CHARACTER DELETE SYMBOL

   F    UMACES      1 U*7   TERMINAL ESCAPE CHARACTER

  10    UMACCORE    4       VIRTUAL STORAGE SIZE IN BYTES

  14    UMACMCOR    4       MAXIMUM VIRTUAL STORAGE SIZE IN BYTES

  18    UMACACCT    8       ACCOUNTING INFORMATION

  20    UMACDIST    8       USER MACHINE DISTRIBUTION INFORMATION

  28    UMACIPL     8       NAME OF SYSTEM TO BE IPLED AT LOGON TIME

  28    UMACIPLX    1       FLAG TO INDICATE PARAMETER PRESENT

     Values defined in UMACIPLX

     00 UMACIPLP            PARAMETERS ARE PRESENT

  2A    UMACXDSP    2       DISPLACEMENT OF UMACXIPL

  2C    UMACXDSD    4       DASD ADDRESS OF UMACXIPL

  30    UMACPUID    3       CPUID SERIAL IN BINARY

  33    UMACAFF     1 U*8   AFFINITY AND PROCESSOR ADDRESS

     Values defined in UMACAFF

     40 UMACFFON            AFFINITY IS SPECIFIED
```

34	UMACCLVL	4		USER CLASS VALUE

Bits defined in UMACCLVL

80000000	UMACCLA	USER CLASS A PRIVILEGES
40000000	UMACCLB	USER CLASS B PRIVILEGES
20000000	UMACCLC	USER CLASS C PRIVILEGES
10000000	UMACCLD	USER CLASS D PRIVILEGES
08000000	UMACCLE	USER CLASS E PRIVILEGES
04000000	UMACCLF	USER CLASS F PRIVILEGES
02000000	UMACCLG	USER CLASS G PRIVILEGES
01000000	UMACCLH	USER CLASS H PRIVILEGES
00800000	UMACCLI	USER CLASS I PRIVILEGES
00400000	UMACCLJ	USER CLASS J PRIVILEGES
00200000	UMACCLK	USER CLASS K PRIVILEGES
00100000	UMACCLL	USER CLASS L PRIVILEGES
00080000	UMACCLM	USER CLASS M PRIVILEGES
00040000	UMACCLN	USER CLASS N PRIVILEGES
00020000	UMACCLO	USER CLASS O PRIVILEGES
00010000	UMACCLP	USER CLASS P PRIVILEGES
00008000	UMACCLQ	USER CLASS Q PRIVILEGES
00004000	UMACCLR	USER CLASS R PRIVILEGES
00002000	UMACCLS	USER CLASS S PRIVILEGES
00001000	UMACCLT	USER CLASS T PRIVILEGES
00000800	UMACCLU	USER CLASS U PRIVILEGES
00000400	UMACCLV	USER CLASS V PRIVILEGES
00000200	UMACCLW	USER CLASS W PRIVILEGES
00000100	UMACCLX	USER CLASS X PRIVILEGES
00000080	UMACCLY	USER CLASS Y PRIVILEGES
00000040	UMACCLZ	USER CLASS Z PRIVILEGES
00000020	UMACCL1	USER CLASS 1 PRIVILEGES
00000010	UMACCL2	USER CLASS 2 PRIVILEGES
00000008	UMACCL3	USER CLASS 3 PRIVILEGES
00000004	UMACCL4	USER CLASS 4 PRIVILEGES
00000002	UMACCL5	USER CLASS 5 PRIVILEGES
00000001	UMACCL6	USER CLASS 6 PRIVILEGES

38	UMACMXCN	2		MAXIMUM NUMBER OF INITIATED CONNECTIONS
3A	UMACIDSP	2		DISPLACEMENT INTO UIUCBLOK
3C	UMACIDSD	4		DASD ADDRESS OF UIUCBLOK
40	UMACSECU	8		USERID OF SECONDARY USER
48	UMACCPO	1	U*9	CP OUTPUT
49	UMACVMO	1	U*10	VM OUTPUT
4A	UMACINR	1	U*11	INPUT REDISPLAY
4B	UMACINA	1	U*12	INPUT AREA
4C	UMACSTA	1	U*13	STATUS AREA
4D	UMACOPT3	1	U*14	VIRTUAL MACHINE OPTION FLAGS

Values defined in UMACOPT3

80	UMACSVCA	AUTHORIZED FOR SVC ACCELERATION
40	UMACCSRV	COMSRV OPTION SPECIFIED
20	UMACCONC	CONCEAL OPTION SPECIFIED
10	UMACLNG	LANG OPTION SPECIFIED
08	UMACVCUN	VCUNOSHR OPTION

4E	UMACDVLM	2	MAXIMUM DEVICES USER IS AUTHORIZED TO ATTACH
50	UMACPASS	8	USER PASSWORD
58	UMACLANG	5	USER LANGUAGE ID
5D	UMACRSV2	3	RESERVED FOR IBM USE
160	UMACFFAD	0	CPU ADDRESS FOR AFFINITY

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

UMACACC	000A	08	UMACCLT	0000	..	UMACDVCT	0000	..	UMACMXCN	0038	..
UMACACCT	0018	..	UMACCLU	0000	..	UMACDVLM	004E	..	UMACNSVC	000A	02
UMACADDR	0000	..	UMACCLV	0000	..	UMACD98	000B	01	UMACOPT	000A	..
UMACAFF	0033	..	UMACCLVL	0034	..	UMACECOP	000A	40	UMACOPT2	000B	..
UMACBMX	000A	01	UMACCLW	0000	..	UMACES	000F	..	UMACOPT3	004D	..
UMACCDEL	000E	..	UMACCLX	0000	..	UMACFFAD	0160	..	UMACPASS	0050	..
UMACCLA	0000	..	UMACCLY	0000	..	UMACFFON	0033	40	UMACPMEN	000B	08
UMACCLB	0000	..	UMACCLZ	0000	..	UMACFST	000A	04	UMACPRIR	0009	..
UMACCLC	0000	..	UMACCL1	0000	..	UMACHMSK	....	F0	UMACPSIZ	....	2C
UMACCLD	0000	..	UMACCL2	0000	..	UMACIDSD	003C	..	UMACPUID	0030	..
UMACCLE	0000	..	UMACCL3	0000	..	UMACIDSP	003A	..	UMACRT	000A	20
UMACCLF	0000	..	UMACCL4	0000	..	UMACINA	004B	..	UMACSCNT	....	5
UMACCLG	0000	..	UMACCL5	0000	..	UMACINR	004A	..	UMACSECU	0040	..
UMACCLH	0000	..	UMACCL6	0000	..	UMACIPL	0028	..	UMACSIZE	....	C
UMACCLI	0000	..	UMACCMSK	....	F	UMACIPLP	0028	00	UMACSTA	004C	..
UMACCLJ	0000	..	UMACCONC	004D	20	UMACIPLX	0028	..	UMACSVCA	004D	80
UMACCLK	0000	..	UMACCORE	0010	..	UMACISAM	000A	80	UMACVARS	000C	..
UMACCLL	0000	..	UMACCPO	0048	..	UMACLANG	0058	..	UMACVCUN	004D	08
UMACCLM	0000	..	UMACCPU	000B	80	UMACLDEL	000D	..	UMACVMO	0049	..
UMACCLN	0000	..	UMACCSRV	004D	40	UMACLEND	000C	..	UMACVMSV	000B	10
UMACCLO	0000	..	UMACDASD	0004	..	UMACLNG	004D	10	UMACVROP	000A	10
UMACCLP	0000	..	UMACDASF	000B	40	UMACMCOR	0014	..	UMACXDSD	002C	..
UMACCLQ	0000	..	UMACDISP	0002	..	UMACMDEV	000B	04	UMACXDSP	002A	..
UMACCLR	0000	..	UMACDIST	0020	..	UMACMIH	000B	02	UMAC370E	000B	20
UMACCLS	0000	..									

VIRTUAL INPUT/OUTPUT CONTROL BLOCKS

The base for locating the virtual input/output (I/O) block structure is the user's virtual machine control block (VMBLOK). The VMBLOK contains a pointer to the start of three control block tables and to a table of 16 channel indexes. The control block tables contain one block for each of the virtual channels, virtual control units, and virtual devices that are defined for the user's virtual machine. The VMBLOK pointer (VMCHSTRT) to the VCHBLOK table contains the address of the first entry in the virtual channel table. Each VCHBLOK contains a table of pointers that point to the virtual control unit blocks (VCUBLOKs) for the control units attached to that virtual channel. Each VCUBLOK contains pointers to the virtual device blocks (VDEVBLOKs) attached to the control unit.

Thus, you can locate the control blocks that represent each component in the path to the given unit by utilizing the indexing scheme outlined, provided you have the unit address of any component in cuu form.

Figure 3 takes you visually through the necessary steps for locating the VDEVBLOK for a virtual device.

VIRTUAL CHANNEL BLOCKS

There is one virtual channel block (VCHBLOK) for each virtual channel in a virtual system. Each VCHBLOK contains the channel address and a flag indicating the channel type (whether selector, byte multiplexer, or block multiplexer). The status of the channel and its attached units is represented by status bytes and mask bytes.

- A status byte (VCHSTAT) indicates whether or not the channel is busy or has a channel-class interrupt pending.
- A halfword unit address identifies the unit causing a channel-class interrupt if any.
- A halfword mask (VCHCUINT) contains a bit map of attached control units that have interrupt status pending.

These status flags and masks precede the table of indexes pointing to the attached VCUBLOKs. Index entries that represent addresses at which no control unit is attached have a value of minus one (-1).

VIRTUAL CONTROL UNIT BLOCKS

There is one virtual control unit block (VCUBLOK) for each control unit in the virtual configuration. The virtual control unit table is made up of VCUBLOKs, each of which contain a base address, status flags similar to those in the VCHBLOK, and a table of indexes to attached VDEVBLOKs. The status flags defined for the VCUBLOK are different from those in the VCHBLOK in that they can contain status information for a subchannel as well as for the control unit.

For example, if the VCUBLOK that represents a 2803 tape control unit is attached to a virtual selector channel, both the VCHBLOK and the VCUBLOK produce busy signals. However, if the VCUBLOK is attached to a virtual byte multiplexer channel and is for a control unit on a selector subchannel of the multiplexer, the busy status of the channel is indicated only in the VCUBLOK. Thus, the virtual byte multiplexer appears to be and is available to operations on other, nonshared subchannels.

VIRTUAL DEVICE BLOCKS

There is one virtual device block (VDEVBLOK) in the configuration for each virtual device defined by the user. Each VDEVBLOK contains the device portion of the unit address, device status, and the virtual CSW for the last interrupt on the device. In addition, the VDEVBLOK contains specific device information that allows the I/O translation and simulation routines to interpret the channel programs presented by the user.

Figure 3 depicts the steps taken to reach a specific VDEVBLOK.

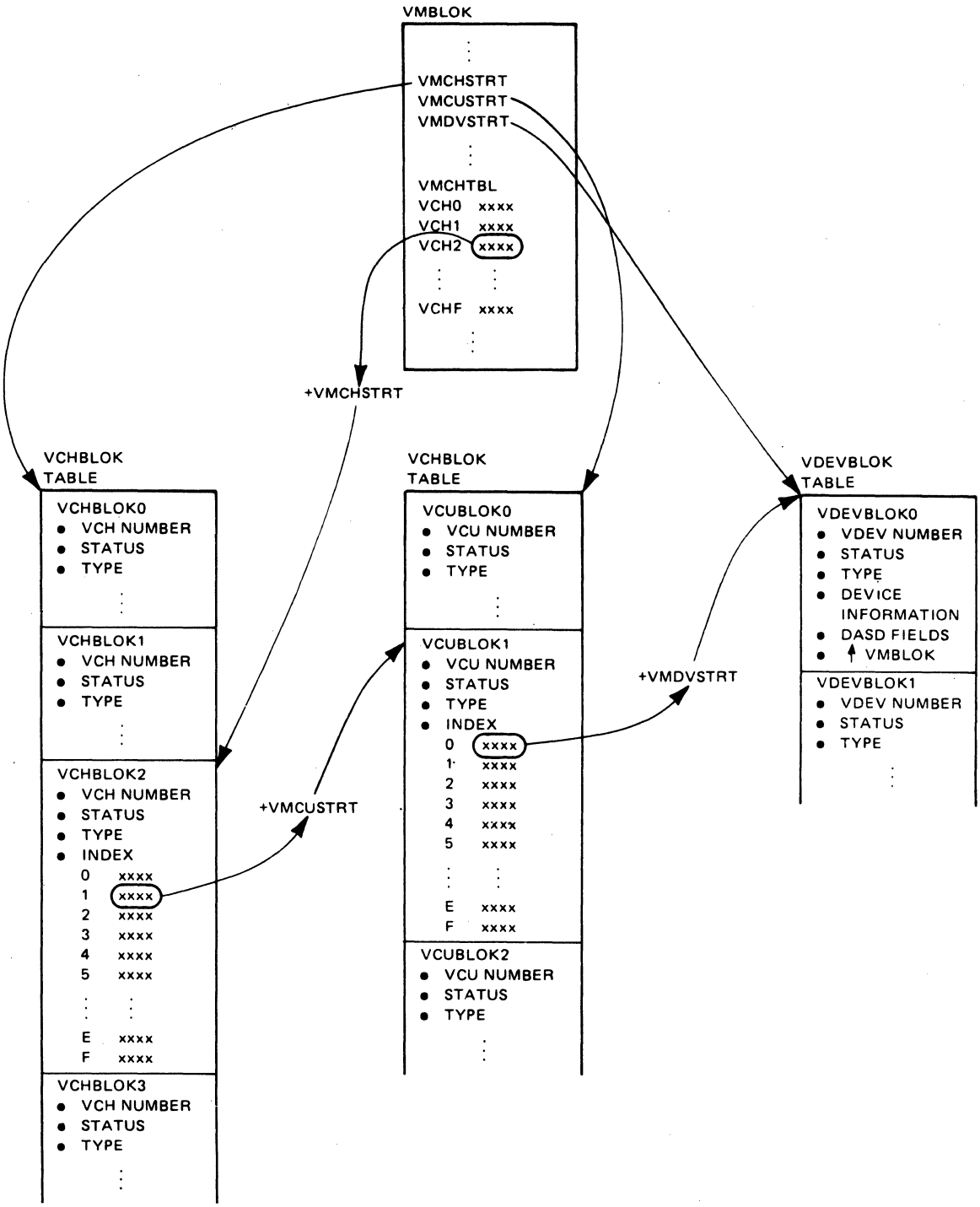
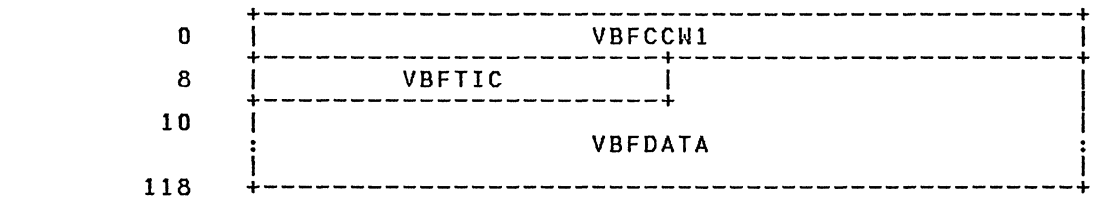


Figure 3. Locating a VDEVBLOK for a Virtual Device at Address 210

VBFBLOK: VIRTUAL SPOOLING WORK BUFFER

VBFBLOK serves as a work area for DMKVSP and DMKVSQ during CCU translation for a virtual 3800. The VSPBUFBK field in VSPLCTL points to VBFBLOK. VBFBLOK is found in SPOOL copy.



SIZE

VBFBLOK SIZE IN DOUBLEWORDS (VBFSIZE) 23

Disp	Name	Len	Key	Description
0	VBFCCW1	8		VIRTUAL CCW BEING PROCESSED
8	VBFTIC	4		TIC CCW TO NEXT ONE
C	VBFDATA	260		DATA CONNECTED WITH VBFCCW1

Note:
In the case of 3800 LOAD CCWs. VBFDATA is too small to contain the data. When a 3800 LOAD CCW is processed, MPRXBGIG is set and the VBFDATA area is redefined for VBFBUF1 - VBFVSQR6.

Disp	Name	Len	Key	Description
C	VBFBUF	4		VIRTUAL ADDRESS OF PAGE
C	VBFBUF1	4		VIRTUAL ADDRESS OF FIRST DATA PAGE
10	VBFRADD	4		REAL ADDRESS OF PAGE
10	VBFRADD1	4		REAL ADDRESS OF FIRST BUFFER
14	VBFBUF2	4		VIRTUAL ADDRESS OF SECOND DATA PAGE
18	VBFRADD2	4		REAL ADDRESS OF SECOND BUFFER
1C	VBFBUF3	4		VIRTUAL ADDRESS OF THIRD PAGE
20	VBFRADD3	4		REAL ADDRESS OF THIRD PAGE
24	VBFBUF4	4		VIRTUAL ADDRESS OF FOURTH PAGE
28	VBFRADD4	4		REAL ADDRESS OF FOURTH PAGE
2C	VBFBUF5	4		VIRTUAL ADDRESS OF FIFTH PAGE
30	VBFRADD5	4		REAL ADDRESS OF FIFTH PAGE
34	VBFBUF6	4		VIRTUAL ADDRESS OF SIXTH PAGE
38	VBFRADD6	4		REAL ADDRESS OF SIXTH PAGE

3C	VBFBUF7	4	VIRTUAL ADDRESS OF SEVENTH PAGE
40	VBFRADD7	4	REAL ADDRESS OF SEVENTH PAGE
44	VBFBUF8	4	VIRTUAL ADDRESS OF EIGHTH PAGE
48	VBFRADD8	4	REAL ADDRESS OF EIGHTH PAGE
4C	VBFBEND	4	ZERO ENTRY TO INDICATE END
50	VBFREND	4	ZERO ENTRY TO INDICATE END
54	VBFLGLFT	4	AMOUNT OF DATA LEFT TO PROCESS
58	VBFDATLF	4	CCW DATA COUNT LEFT TO PROCESS
5C	VBFFLAG1	1	FLAG BYTE

Values defined in VBFFLAG1

80	VBFDCACT	DATA CHAINING IS IN EFFECT
40	VBFDCUSD	DATA CHAINING WAS USED FOR THIS CCW

5E	VBFCOUNT	2	CCW COUNT WHEN USING A BIG BUFFER
60	VBFVSQR0	4	REGISTER 0 SAVE AREA
64	VBFVSQR1	4	REGISTER 1 SAVE AREA
68	VBFVSQR2	4	REGISTER 2 SAVE AREA
6C	VBFVSQR3	4	REGISTER 3 SAVE AREA
70	VBFVSQR4	4	REGISTER 4 SAVE AREA
74	VBFVSQR5	4	REGISTER 5 SAVE AREA
78	VBFVSQR6	4	REGISTER 6 SAVE AREA
110	VBFWORK	8	WORK AREA

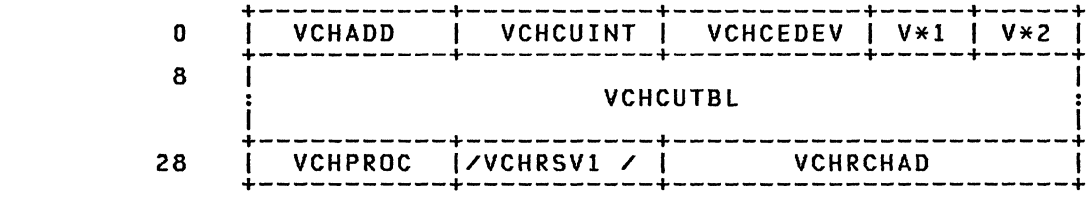
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VBFBEND	004C	..	VBFCCW1	0000	..	VBFRADD2	0018	..	VBFTIC	0008	..
VBFBUF	000C	..	VBFCOUNT	005E	..	VBFRADD3	0020	..	VBFVSQR0	0060	..
VBFBUF1	000C	..	VBFDATA	000C	..	VBFRADD4	0028	..	VBFVSQR1	0064	..
VBFBUF2	0014	..	VBFDATLF	0058	..	VBFRADD5	0030	..	VBFVSQR2	0068	..
VBFBUF3	001C	..	VBFDCACT	005C	80	VBFRADD6	0038	..	VBFVSQR3	006C	..
VBFBUF4	0024	..	VBFDCUSD	005C	40	VBFRADD7	0040	..	VBFVSQR4	0070	..
VBFBUF5	002C	..	VBFFLAG1	005C	..	VBFRADD8	0048	..	VBFVSQR5	0074	..
VBFBUF6	0034	..	VBFLGLFT	0054	..	VBFREND	0050	..	VBFVSQR6	0078	..
VBFBUF7	003C	..	VBFRADD	0010	..	VBFSIZE	....	23	VBFWORK	0110	..
VBFBUF8	0044	..	VBFRADD1	0010	..						

VCHBLOK: VIRTUAL CHANNEL BLOCK

VCHBLOK contains information providing linkage between the virtual machine and one of its virtual channels. Supplied in this block, in addition to channel status and type information, are reflected interruptions from attached virtual control units. The VMCHSTRT field of the VMBLOK points to the first VCHBLOK. VCHBLOK is found in VBLOKS copy.



SIZE

VCHBLOK SIZE IN DOUBLEWORDS (VCHSIZE) 6

Disp	Name	Len	Key	Description
0	VCHADD	2		VIRTUAL CHANNEL ADDRESS
2	VCHCUINT	2		VCUBLOK WITH INTERRUPT - BIT MAP
4	VCHCEDEV	2		VIRT ADDRESS WITH CHANNEL CLASS INTERRUPT
6	VCHSTAT	1	V*1	VIRTUAL CHANNEL STATUS FLAGS
	Values defined in VCHSTAT			
	80 VCHBUSY			VIRTUAL CHANNEL BUSY
	40 VCHCEPND			VIRTUAL CHANNEL INTERRUPT PENDING
	01 VCHDED			VIRTUAL CHANNEL DEDICATED
7	VCHTYPE	1	V*2	VIRTUAL CHANNEL TYPE
	Values defined in VCHTYPE			
	80 VCHSEL			VIRTUAL SELECTOR CHANNEL
	40 VCHBMX			VIRTUAL BLOCK MULTIPLEXOR
8	VCHCUTBL	32		CONTROL UNITS ATTACHED - VMCUSTRT INDEX
28	VCHPROC	2		LOGICAL PROCESSOR ADDRESS
2A	VCHRSV1	2		RESERVED FOR IBM USE
2C	VCHRCHAD	4		RCHBLOK ADDRESS

CROSS REFERENCE

(Name Disp Value)

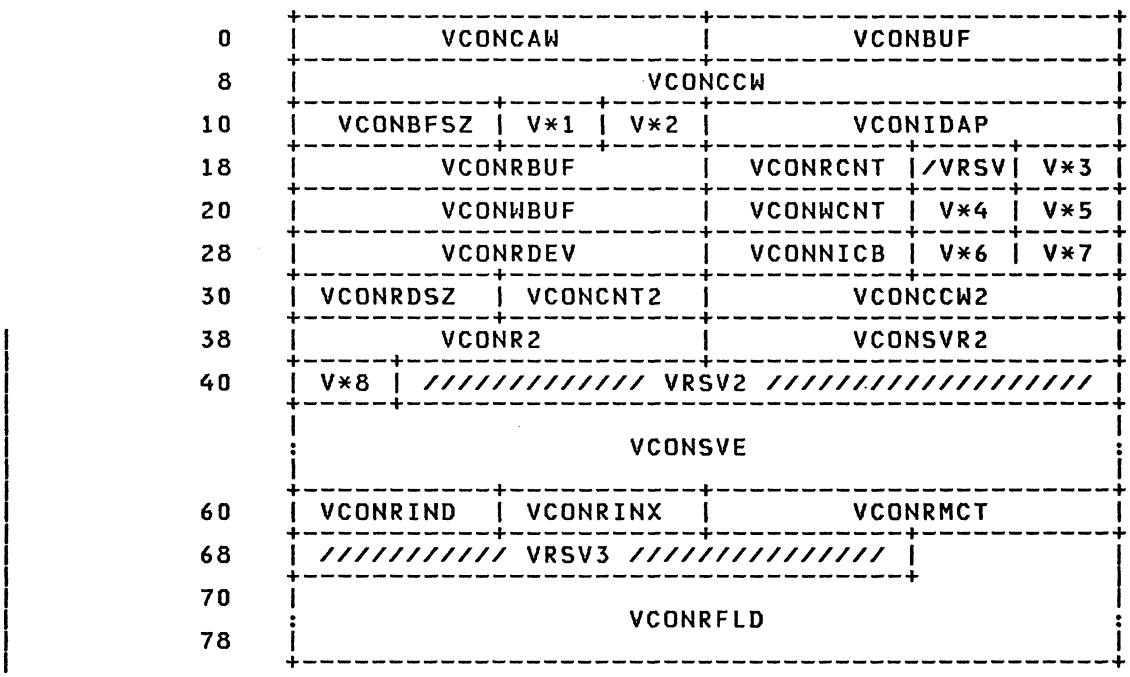
This cross reference contains all the labels defined above

as well as any general equates the copy file may contain.

VCHADD	0000	..	VCHCEPND	0006	40	VCHPROC	0028	..	VCHSIZE	....	6
VCHBMX	0007	40	VCHCUINT	0002	..	VCHRCHAD	002C	..	VCHSTAT	0006	..
VCHBUSY	0006	80	VCHCUTBL	0008	..	VCHSEL	0007	80	VCHTYPE	0007	..
VCHCEDEV	0004	..	VCHDED	0006	01						

VCONCTL: VIRTUAL CONSOLE CONTROL BLOCK

VCONCTL contains CCW and data buffer information for the communications of the virtual console. The VDEVCON field of the VDEVBLOK points to VCONCTL. VCONCTL is found in IOBLOKS copy.



SIZE

LENGTH OF EXTENSION IN BYTES (VCONRLN) 68
SIZE OF LARGE VCONCTL IN DOUBLEWORDS (VCONRMSZ) 19
VCONCTL SIZE IN DOUBLEWORDS (VCONSIZE) C
SIZE OF VCONPLST IN DOUBLEWORDS (VCONPLSZ) 5

Disp	Name	Len	Key	Description
0	VCONCAW	4		VIRTUAL ADDRESS OF USER CCW
4	VCONBUF	4		POINTER TO DATA BUFFER
8	VCONCCW	8		CURRENT USER CCW
8	VCONADDR	4		CCW DATA ADDRESS
8	VCONCOMD	1		CCW COMMAND CODE
C	VCONFLAG	1		CCW FLAG BITS

D	VCONDWC	1		DIAGNOSE WRITE CONTROL

Values defined in VCONDWC

80	ERASWRT	ANY FULL SCREEN WRITE OPERATION
80	READMOD	READ MODIFIED FLAG
40	ALTWRT	ERASE/WRITE ALT FLAG
20	WRTSFLD	WRITE STRUCT FIELD FLAG
10	VCONPPA1	PASS PA1 KEY FLAG (FSS ONLY)

E	VCONCNT	2		CCW BYTE COUNT
10	VCONBFSZ	2		DATA BUFFER SIZE IN DOUBLEWORDS
12	VCONFSS	1	V*1	FULL SCREEN DIAGNOSE FLAGS

Values defined in VCONFSS

11	VCONWSF	WRITE STRUCTURED FIELD
0F	VCONFSOP	ANY FULL SCREEN OPERATION
0D	ANYWRITE	ANY FULL SCREEN WRITE
0D	VCONEWA	ERASE/WRITE ALTERNATE OPERATION
08	VCONALT	ERASE/WRITE ALTERNATE OPERATION
06	VCONRMOD	READ MODIFIED OPERATION
05	VCONEWRT	ERASE/WRITE OPERATION
04	VCONMOD	MODIFIED OPERATION
02	VCONRD	FULL SCREEN READ
01	VCONWRT	FULL SCREEN WRITE

13	VCONOPT	1	V*2	CONSOLE OPTIONS

Values defined in VCONOPT

80	VCON3270	3270 CCWS IF ON, 3215 IF NOT
40	VCONCBRK	BREAKIN CONTROL WANTED
20	VCONSCRN	SCRNSAVE WANTED (TERMINAL COMMAND)
10	VCONWA	LAST FULL SCREEN I/O WAS ALTERNATE
08	VCONANF	FULL SCREEN CONTASKS ARE QUEUED
04	VCONCPRD	BREAKIN KEY HIT IN GUEST MODE
02	VCONANF2	RESET JUST DONE
01	VCONDIAG	DIAGNOSE 8 CONTASK IS COMING

14	VCONIDAP	4		IDA ADDRESS OF CURRENT IDAW
18	VCONRBUF	4		ADDRESS OF READ DATA BUFFER

Values defined in VCONRBUF

80	VCONRBFS	READ BUFFER IS DUE TO 3270 SIO

1C	VCONRCNT	2		DATA COUNT IN READ BUFFER
1E	VRSV	1		RESERVED FOR IBM USE
1F	VCONBRK	1	V*3	BREAK-IN CHARACTER FOR MODE SWITCH

Values defined in VCONBRK

FF	VCONOBRK	NO TERMINAL BREAK KEY DEFINED

20	VCONWBUF	4		ADDRESS OF WRITE DATA BUFFER

Values defined in VCONWBUF

	80	VCONWBFS			WRITE BUFFER IS DUE TO 3270 SIO
	24	VCONWCNT	2		DATA COUNT IN WRITE BUFFER
	26	VCONWBSZ	1	V*4	WRITE BUFFER SIZE IN DOUBLEWORDS
	27	VCONREMF	1	V*5	VIRTUAL REMOTE CONSOLE FLAGS
		Values defined in VCONREMF			
	80	VCONREMD			REMOTE DEVICE
	40	VCONSKIP			SKIPPING
	20	VCONEXTN			EXTENDED VCONCTL
	28	VCONRDEV	4		REMOTE DEVICE RDEVBLOK ADDRESS
	2C	VCONNICB	2		REMOTE DEVICE RESOURCE ID
	2E	VCONSRM	1	V*6	WSF USAGE - LAST GUEST SRM
		Values defined in VCONSRM			
	40	VCONSPSS			PSS NOW INFORCE FOR GUEST
	20	VCONSCOL			COLOR NOW INFORCE FOR GUEST
	10	VCONSHI			HIGHLIGHT NOW INFORCE FOR GUEST
	2F	VCONFLG2	1	V*7	CONSOLE FLAGS
		Values defined in VCONFLG2			
	80	VCONWRRD			WRITE CHAINED TO A READ
	20	VCONWRRM			WRITE COMMAND CHAINED TO WRITE
	10	VCONREXW			EXWAINT BIT RESET
	08	VCONLED			LIMITED EDIT WRITE
	04	VCONNTRM			CONSOLE WAS SPOOLED NOTERM
	02	VCONOMSG			DO NOT SEND CONSOLE OUTPUT OVER
	30	VCONRDSZ	2		SIZE OF READ BUFFER IN DOUBLEWORDS
	32	VCONCNT2	2		WRITE CHAINED TO READ, WRITE CCW DATA
	34	VCONCCW2	4		WRITE CHAINED TO READ, WRITE CCW
	38	VCONPLST	40		PARAMETER LIST FOR QCN/QCO INTERFACE
|	38	VCONR2	4		SAVEAREA FOR REGISTER TWO
	3C	VCONSVR2	4		PARAMETERS FOR QCN/QCO
	40	VCONPLF	1	V*8	FLAG BYTE
		Values defined in VCONPLF			
	40	VCONNCB			INDICATES NON-CONTIGUOUS BUFFER
	41	VRSV2	7		RESERVED FOR IBM USE
	48	VCONSVE	24		SAVE AREA
	60	VCONRIND	2		NUMBER OF REMOTE CCWS COMPLETED
	62	VCONRINX	2		NUMBER OF REMOTE CCWS IN CHAIN
	64	VCONRMCT	4		TOTAL NUMBER OF BYTES IN ALL CCWS
	68	VRSV3	6		RESERVED FOR IBM USE

6E VCONRFLD 90 SPACE FOR 30 CHAINED CCWS

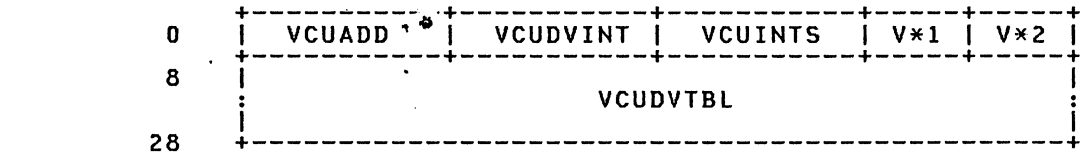
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

ALTWRT	000D	40	VCONDWC	000D	..	VCONRBFS	0018	80	VCONSHI	002E	10
ANYWRITE	0012	0D	VCONEWA	0012	0D	VCONRBUF	0018	..	VCONSIZE	....	C
ERASWRT	000D	80	VCONEWRT	0012	05	VCONRBYT	....	3	VCONSKIP	0027	40
FSREAD	....	2A	VCONEXTN	0027	20	VCONRCNT	001C	..	VCONSPSS	002E	40
FSWRITE	....	29	VCONFLAG	000C	..	VCONRD	0012	02	VCONSRM	002E	..
READMOD	000D	80	VCONFLG2	002F	..	VCONRDEV	0028	..	VCONSVE	0048	..
VCONADDR	0008	..	VCONFSOP	0012	0F	VCONRDSZ	0030	..	VCONSVR2	003C	..
VCONALT	0012	08	VCONFSS	0012	..	VCONREMD	0027	80	VCONWA	0013	10
VCONANF	0013	08	VCONIDAP	0014	..	VCONREMF	0027	..	VCONWBFS	0020	80
VCONANF2	0013	02	VCONLED	002F	08	VCONREXW	002F	10	VCONWBSZ	0026	..
VCONBFSZ	0010	..	VCONMOD	0012	04	VCONRFLD	006E	..	VCONWBUF	0020	..
VCONBRK	001F	..	VCONNCB	0040	40	VCONRIND	0060	..	VCONWCNT	0024	..
VCONBUF	0004	..	VCONNICB	002C	..	VCONRINX	0062	..	VCONWRRD	002F	80
VCONCAW	0000	..	VCONNTRM	002F	04	VCONRLN	....	68	VCONWRRM	002F	20
VCONCBRK	0013	40	VCONOBRK	001F	FF	VCONRMAX	....	1E	VCONWRT	0012	01
VCONCCW	0008	..	VCONOMSG	002F	02	VCONRMCT	0064	..	VCONWSF	0012	11
VCONCCW2	0034	..	VCONOPT	0013	..	VCONRMOD	0012	06	VCON3270	0013	80
VCONCNT	000E	..	VCONPLF	0040	..	VCONRMSZ	....	19	VRSV	001F	
VCONCNT2	0032	..	VCONPLST	0038	..	VCONR2	0038	..	VRSV2	0041	
VCONCOMD	0008	..	VCONPLSZ	....	5	VCONSCOL	002E	20	VRSV3	0068	
VCONCPRD	0013	04	VCONPPA1	000D	10	VCONSCRN	0013	20	WRTSFLD	000D	20
VCONDIAG	0013	01									

VCUBLOK: VIRTUAL CONTROL UNIT BLOCK

VCUBLOK contains status information relating to the virtual channel, and the status and features of the virtual control unit. The VMCUSTRT field of the VMBLOK points to the first VCUBLOK. VCUBLOK is found in VBLOKS copy.



SIZE

VCUBLOK SIZE IN DOUBLEWORDS (VCUSIZE) 5

Disp	Name	Len	Key	Description
0	VCUADD	2		VIRTUAL CONTROL UNIT ADDRESS
2	VCUDVINT	2		VDEVBLOK WITH INTERRUPT
4	VCUINTS	2		VIRTUAL CONTROL UNIT INTERRUPT STATUS
6	VCUSTAT	1	V*1	VIRTUAL CONTROL UNIT STATUS
	Values defined in VCUSTAT			
	80 VCUCHBSY			VIRTUAL SUBCHANNEL BUSY
	40 VCUCEPND			INTERRUPT PENDING IN SUBCHANNEL
	20 VCUBUSY			VIRTUAL CONTROL UNIT BUSY
	10 VCUPEND			VIRTUAL CONTROL UNIT INTERRUPT PENDING
	08 VCUCUEPN			VIRTUAL CONTROL UNIT END PENDING
	04 VCUACTV			VIRTUAL CONTROL UNIT ACTIVE
	02 VCUVR			REFLECT ONE UNSOLICITED CUE PER
	01 VCUPCU			PAGING CONTROL UNIT
7	VCUTYPE	1	V*2	VIRTUAL CONTROL UNIT TYPE
	Values defined in VCUTYPE			
	80 VCUSHRD			VIRTUAL CONTROL UNIT ON SHARED SUBCHANNEL
	40 VCUCTCA			VIRTUAL CONTROL UNIT IS CTCA
	20 VCUBSYLO			WAITING FOR CUE ON FIRST HALF VCUBLOK
	10 VCUBSYHI			WAITING FOR CUE ON SECOND HALF VCUBLOK
8	VCUDVTBL	32		DEVICES ATTACHED - VMDVSTRT INDEX

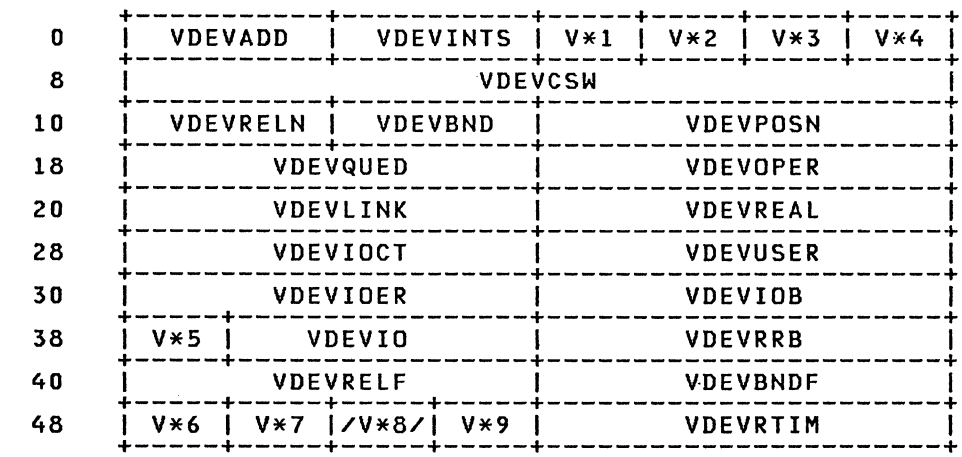
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VCUACTV	0006	04	VCUCEPND	0006	40	VCUDVTBL	0008	..	VCUSIZE	....	5
VCUADD	0000	..	VCUCHBSY	0006	80	VCUINTS	0004	..	VCUSTAT	0006	..
VCUBSYHI	0007	10	VCUCTCA	0007	40	VCUPCU	0006	01	VCUTYPE	0007	..
VCUBSYLO	0007	20	VCUCUEPN	0006	08	VCUPEND	0006	10	VCUVR	0006	02
VCUBUSY	0006	20	VCUDVINT	0002	..	VCUSHRD	0007	80			

VDEVBLOK: VIRTUAL DEVICE BLOCK

VDEVBLOK maintains status and interrupt conditions for one virtual device. The VMDVSTRT field of the VMBLOK points to the first VDEVBLOK. VDEVBLOK is found in VBLOKS copy.



SIZE

VDEVBLOK SIZE IN DOUBLEWORDS (VDEVSIZE) A

Disp	Name	Len	Key	Description
0	VDEVADD	2		VIRTUAL DEVICE ADDRESS
2	VDEVINTS	2		VIRTUAL DEVICE INTERRUPT STATUS
4	VDEVTYPC	1	V*1	VIRTUAL DEVICE TYPE CLASS
5	VDEVTYPE	1	V*2	VIRTUAL DEVICE TYPE
6	VDEVSTAT	1	V*3	VIRTUAL DEVICE STATUS

Values defined in VDEVSTAT

80	VDEVCHBS	VIRTUAL SUBCHANNEL BUSY
40	VDEVCHAN	VIRTUAL CHANNEL INTERRUPT PENDING
20	VDEVBUSY	VIRTUAL DEVICE BUSY
10	VDEVPEND	VIRTUAL DEVICE INTERRUPT PENDING
08	VDEVCUE	VIRTUAL CUE UNIT
04	VDEVNRDY	VIRTUAL DEVICE NOT READY
02	VDEVCATT	VIRTUAL DEVICE ATTACHED VIA CONSOLE FCN
01	VDEVDED	VDEVREAL IS DEDICATED DEVICE RDEVBLOK

7	VDEVFLAG	1	V*4	VIRTUAL DEVICE FLAGS

Values defined in VDEVFLAG

80	VDEVRDO		DASD - READ ONLY
80	VDEVENAB		VIRTUAL 270X - LINE ENABLED
40	VDEVTDSK		DASD - T-DISK SPACE ALLOCATED BY CP
40	VDEVDIAL		VIRTUAL 270X - LINE CONNECTED
20	VDEVCSPL		CONSOLE - ACTIVITY SPOOLED
20	VDEV231T		DASD - 2311 SIMULATED ON TOP HALF OF 2314
10	VDEV231B		DASD - 2311 SIMULATED ON BOTTOM HALF 2314
10	VDEVCCW1		CONSOLE AND SPOOLING - PROCESSING 1ST CCW
08	VDEVSAS		DASD - EXECUTING STAND ALONE SEEK
08	VDEVDLY		CONSOLE - DELAY SPOOLING
04	VDEVDET		VIRTUAL DEVICE IS BEING DETACHED
02	VDEVRSRL		RESERVE/RELEASE ARE VALID CCW OP CODES
01	VDEVUC		VIRTUAL DEVICE SENSE BYTES PRESENT
8	VDEVCSW	8	VIRTUAL CHANNEL STATUS WORD
10	VDEVRELN	2	VIRTUAL DASD CYLINDER RELOCATION
10	VDEVEXTN	4	ADDRESS OF SPOOL EXTENSION BLOCK
10	VDEVCPEB	4	ADDRESS OF CPEXBLOK
12	VDEVBND	2	VIRTUAL DASD SIZE (IN CYLINDERS)
14	VDEVPOSN	4	VIRTUAL DASD SEEK POSITION
14	VDEVRDSV	4	REMOTE DIAL 327X SAVE AREA
14	VDEVRDS1	1	REMOTE DIAL 327X SAVE AREA 1
14	VDEVMDL	1	VIRTUAL DEVICE MODEL NUMBER
15	VDEVRDS2	1	REMOTE DIAL 327X SAVE AREA 2
16	VDEVRDS3	1	REMOTE DIAL 327X SAVE AREA 3
17	VDEVRDS4	1	REMOTE DIAL 327X SAVE AREA 4
18	VDEVQUED	4	VIRTUAL SIO TO REAL SIO QUEUED TIME
18	VDEVCON	4	ADDRESS OF VCONCTL CONSOLE CONTROL
1C	VDEVOPER	4	DEVICE OPERATIONAL TIME
1C	VDEVSPL	4	ADDRESS OF VSPLCTL SPOOL CONTROL
20	VDEVLINK	4	LINK TO VIRTUAL SHARED DEVICES
20	VDEVCLAS	1	SPOOL - OUTPUT CLASS
20	VDEVTMAT	4	T-DISK ATTACHED TIME (TOD CK WORD 0)
21	VDEVKEY	1	STORAGE KEY IN USER'S CAW
22	VDEVUNIT	2	SPOOL - OUTPUT DIRECTED DEVICE ADDRESS
24	VDEVREAL	4	ADDRESS OF REAL DEVICE RDEVBLOK
24	VDEVCOPY	2	NUMBER OF COPIES REQUESTED
27	VDEVSFLG	1	SPOOL - VIRTUAL SPOOL FLAGS

Values defined in VDEVSFLG

```
     80 VDEVFEED           SPOOL READER - LAST COMMAND DID A FEED
     80 VDEVXFER           SPOOL OUTPUT - XFERED TO VDEVXUSR
     40 VDEVCONT           SPOOL DEVICE - CONT OPERATION
     20 VDEVHOLD           HOLD OUTPUT - SAVE INPUT
     10 VDEVFOR            SPOOL OUTPUT - FOR USER AND DIST
     08 VDEVEOF            SPOOL INPUT - SET UNIT EXCEPTION AT EOF
     08 VDEVTERM           TERM OUTPUT REQ'D FOR SPOOLED CONSOLE
     04 VDEVCFCL           DEVICE CLOSED BY CONSOLE FUNCTION
     02 VDEVPURG           SPOOL OUTPUT - PURGE FILE AT CLOSE
     02 VDEVDIAG           SPOOL INPUT - DEVICE OPENED BY DIAGNOSE
     01 VDEVSVC            SPOOL DEVICE BUSY BY CP

28   VDEVIOCT   4          VIRTUAL DEVICE I/O COUNT

2C   VDEVUSER   4          ADDRESS OF VMBLOK OF VDEVBLOK OWNER

30   VDEVIOER   4          ADDRESS OF IOERBLOK FOR LAST ERROR

30   VDEVSNSE   4          SENSE BYTES FOR SPOOL DEVICE

34   VDEVIOB    4          ADDRESS OF ACTIVE IOBLOK

34   VDEVFCBK   4          ADDRESS OF FORMS CONTROL BLOCK (VFCBBLOK)

34   VDEVPRBK   4          ADDRESS OF 3800 EXTENSION BLOCK

38   VDEVFLG2   1 V*5      VIRTUAL DEVICE FLAG

  Values defined in VDEVFLG2

     80 VDEVRRF            PROCESS VIRTUAL RESERVE/RELEASE COMMANDS
     80 VDEVDROP           LINE DROP IN PROGRESS
     40 VDEVREST           RESET THE DEVICE
     40 VDEVRES            MINIDISK RESERVED BY VDEVUSER
     20 VDEVODE            VDEVBLOK TO GET DE WHEN MDSK "RELEASED"
     10 VDEVCPEX           VIRT I/O WAITING FOR "RELEASE" ON MDISK
     08 VDEVPST            PASS INTERRUPT TO USER
     04 VDEVVIRT           VIRTUAL 3330V
     02 VDEVSMBY           SM+BUSY INTERRUPT
     01 VDEVREMP           REMOTE PRINTER PROCESSING

39   VDEVIO     3          ADDRESS OF QUEUE OF PENDING INTERRUPTS

3C   VDEVRRB    4          ADDRESS OF VRRBLOK FOR RES/REL MINIDISKS

40   VDEVRELF   4          VIRTUAL DASD (FBA ONLY)

44   VDEVBNDF   4          VIRTUAL DASD (FBA ONLY) SIZE

48   VDEVFLG3   1 V*6      VIRTUAL DEVICE FLAG

  Values defined in VDEVFLG3

     80 VDEVRDIA           REMOTE 327X DIALING
     40 VDEVIOPN           VIRTUAL IO PENDING
     20 VDEV3088           VIRTUAL DEVICE IS 3088
     08 VDEVSDIA           REMOTE SNA LU DIALING
     04 VDEVRERR           ERROR BIT FOR RDIAL
     02 VDEVDERE           RESET/DETACH/RELEASE PROCESSING
     01 VDEV38X            PREFERRED PAGE BIT - BASE ONLY

49   VDEVCFLG   1 V*7      VIRTUAL CONSOLE FLAGS

  Values defined in VDEVCFLG
```

```
   80 VDEVATTN          USER HIT TWO OR MORE ATTENTIONS
   40 VDEVTIC           LAST CCW PROCESSED WAS A TIC
   20 VDEVTRAN          DATA TRANSFER OCCURRED
   10 VDEVVCF           VIRTUAL CONSOLE FUNCTION IN PROGRESS
   08 VDEVAUCR          AUTO CARRIAGE RETURN ON FIRST READ

 4A   VDEVRSV1   1 V*8  RESERVED FOR IBM USE

 4B   VDEVFLG4   1 V*9  VIRTUAL DEVICE FLAG

   Values defined in VDEVFLG4

   80 VDEVPGBS          REMEMBER PREVIOUS GRAF BUSY
   40 VDEVDEFR          VIRTUAL MACHINE RESET DEFERRED
   10 VDEVCACH          CACHE ENABLED
   08 VDEVNORW          NO REWIND/UNLOAD WITH TAPE DETACH
   04 VDEVRCTC          ATTACHED VCTCA BEING RESET
   03 VDEVINDX          VDEVBLOK INDEX CONVERSION FACTOR
   02 VDEVPOST          PRESENT ATTENTION WITH SINGLE INTERRUPT

 4C   VDEVRTIM   4      REMOTE DIAL ATTACH TIME
```

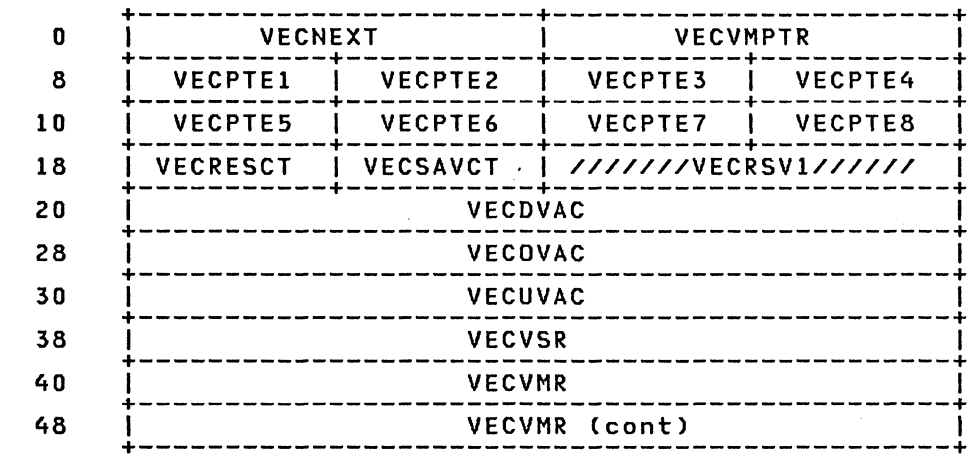
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VDEVADD  0000  ..   VDEVDLY  0007  08   VDEVPEND 0006  10   VDEVRTIM 004C  ..
VDEVATTN 0049  80   VDEVDROP 0038  80   VDEVPGBS 004B  80   VDEVSAS  0007  08
VDEVAUCR 0049  08   VDEVENAB 0007  80   VDEVPOSN 0014  ..   VDEVSDIA 0048  08
VDEVBND  0012  ..   VDEVEOF  0027  08   VDEVPOST 004B  02   VDEVSFLG 0027  ..
VDEVBNDF 0044  ..   VDEVEXTN 0010  ..   VDEVPRBK 0034  ..   VDEVSIZE ....   A
VDEVBUSY 0006  20   VDEVFCBK 0034  ..   VDEVPST  0038  08   VDEVSMBY 0038  02
VDEVCACH 004B  10   VDEVFEED 0027  80   VDEVPURG 0027  02   VDEVSNSE 0030  ..
VDEVCATT 0006  02   VDEVFLAG 0007  ..   VDEVQUED 0018  ..   VDEVSPL  001C  ..
VDEVCCW1 0007  10   VDEVFLG2 0038  ..   VDEVRCTC 004B  04   VDEVSTAT 0006  ..
VDEVCFCL 0027  04   VDEVFLG3 0048  ..   VDEVRDIA 0048  80   VDEVSVC  0027  01
VDEVCFLG 0049  ..   VDEVFLG4 004B  ..   VDEVRDO  0007  80   VDEVTDSK 0007  40
VDEVCHAN 0006  40   VDEVFOR  0027  10   VDEVRDSV 0014  ..   VDEVTERM 0027  08
VDEVCHBS 0006  80   VDEVHOLD 0027  20   VDEVRDS1 0014  ..   VDEVTIC  0049  40
VDEVCLAS 0020  ..   VDEVINDX 004B  03   VDEVRDS2 0015  ..   VDEVTMAT 0020  ..
VDEVCON  0018  ..   VDEVINTS 0002  ..   VDEVRDS3 0016  ..   VDEVTRAN 0049  20
VDEVCONT 0027  40   VDEVIO   0039  ..   VDEVRDS4 0017  ..   VDEVTYPC 0004  ..
VDEVCOPY 0024  ..   VDEVIOB  0034  ..   VDEVREAL 0024  ..   VDEVTYPE 0005  ..
VDEVCPEB 0010  ..   VDEVIOCT 0028  ..   VDEVRELF 0040  ..   VDEVUC   0007  01
VDEVCPEX 0038  10   VDEVIOER 0030  ..   VDEVRELN 0010  ..   VDEVUNIT 0022  ..
VDEVCSPL 0007  20   VDEVIOPN 0048  40   VDEVREMP 0038  01   VDEVUSER 002C  ..
VDEVCSW  0008  ..   VDEVKEY  0021  ..   VDEVRERR 0048  04   VDEVVCF  0049  10
VDEVCUE  0006  08   VDEVLINK 0020  ..   VDEVRES  0038  40   VDEVVIRT 0038  04
VDEVDED  0006  01   VDEVMDL  0014  ..   VDEVREST 0038  40   VDEVXFER 0027  80
VDEVDEFR 004B  40   VDEVNORW 004B  08   VDEVRRB  003C  ..   VDEV231B 0007  10
VDEVDERE 0048  02   VDEVNRDY 0006  04   VDEVRRF  0038  80   VDEV231T 0007  20
VDEVDET  0007  04   VDEVODE  0038  20   VDEVRSRL 0007  02   VDEV3088 0048  20
VDEVDIAG 0027  02   VDEVOPER 001C  ..   VDEVRSV1 004A  ..   VDEV38X  0048  01
VDEVDIAL 0007  40
```

VECBLOK: VM VECTOR FACILITY STATUS BLOCK

VECBLOK contains the virtual machine's Vector Facility status, except vector register contents. VECBLOKs are chained together in a single threaded chain. DMKVFRCH points to the first VECBLOK. The VMVECPTR field in VMBLOK also points to each VECBLOK. VECBLOK is found in VECTOR copy.



SIZE

VECBLOK SIZE IN BYTES (VECSIZE) 40+VECVMR

Disp	Name	Len	Key	Description
0	VECNEXT	4		POINTER TO NEXT VECBLOK IN CHAIN
4	VECVMPTR	4		POINTER TO VMBLOK
8	VECPTE1	2		VRSA PAGE TABLE ENTRY 1
A	VECPTE2	2		VRSA PAGE TABLE ENTRY 2
C	VECPTE3	2		VRSA PAGE TABLE ENTRY 3
E	VECPTE4	2		VRSA PAGE TABLE ENTRY 4
10	VECPTE5	2		VRSA PAGE TABLE ENTRY 5
12	VECPTE6	2		VRSA PAGE TABLE ENTRY 6
14	VECPTE7	2		VRSA PAGE TABLE ENTRY 7
16	VECPTE8	2		VRSA PAGE TABLE ENTRY 8
18	VECRESCT	2		VECTOR FACILITY RESTORE COUNT
1A	VECSAVCT	2		VECTOR FACILITY SAVE COUNT

1C	VECRSV1	4	RESERVED FOR IBM USE
20	VECDVAC	8	POSITIVE DIFFERENCE BETWEEN USER'S VAC AND TOTAL VIRTUAL VECTOR TIME
28	VECOVAC	8	CP OVERHEAD TIME
30	VECUVAC	8	USER'S VIRTUAL VAC
38	VECVSR	8	VECTOR STATUS REGISTER
38	VECVSRB0	1	BYTE 0
39	VECVSRB1	1	BYTE 1
	Values defined in VECVSRB1		
	01 VECVMM		VECTOR MASK MODE
3A	VECVCT	2	VECTOR COUNT
3C	VECVIX	2	VECTOR INTERRUPTION INDEX
03E	VECVIU	1	VECTOR IN-USE BITS
03F	VECVCH	1	VECTOR CHANGE BITS
040	VECVMR	SEC SIZE + 4 BITS	VECTOR MASK REGISTER

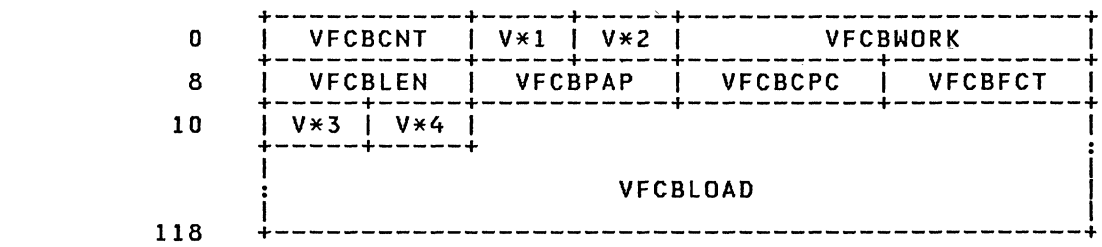
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VECDVAC	0020	..	VECPTE5	0010	..	VECUVAC	0030	..	VECVMR	0040	..
VECNEXT	0000	..	VECPTE6	0012	..	VECVCH	003F	..	VECVMPTR	0004	..
VECOVAC	0028	..	VECPTE7	0014	..	VECVCT	003A	..	VECVMR	0040	..
VECPTE1	0008	..	VECPTE8	0016	..	VECVIU	003E	..	VECVSR	0038	..
VECPTE2	000A	..	VECREXCT	0018	..	VECVIX	003C	..	VECVSRB0	0038	..
VECPTE3	000C	..	VECRSV1	001C	..	VECVMM	0039	01	VECVSRB1	0039	..
VECPTE4	000E	..	VECSAVCT	001A	..						

VFCBBLOK: VIRTUAL FORMS CONTROL BUFFER BLOCK

VFCBBLOK is exclusively used for virtual 3211 printer carriage control forms activity. The VDEVFCBK field in VDEVBLOK points to VFCBBLOK. VFCBBLOK is found in VBLOKS copy.



SIZE

VFCBBLOK SIZE IN DOUBLEWORDS (VFCBSIZE) 23

Disp	Name	Len	Key	Description
0	VFCBCNT	2		CURRENT POINTER TO CARRIAGE COLUMN
2	VFCBFLAG	1	V*1	WORK FLAGS
	Values defined in VFCBFLAG			
	80 VFCBEOF			END OF FORMS PASSED ONCE
	40 VFCBCMD			FORMS CONTROL GIVEN
	20 VFCBFOLD			FOLDING IS IN EFFECT
	10 VFCBFSET			FOLD VALUE HAS BEEN SET
	08 VFCBLFCB			FCB HAS BEEN LOADED
	04 VFCBDFCB			DEFAULT FCB IN FILE IF NEEDED
	02 VFCBEXO			EXECUTE ORDER WAS ISSUED
	01 VFCBDIAG			DIAGNOSTIC GATE WAS ISSUED
3	VFCBCHL	1	V*2	CHANNEL NUMBER OR SPACE COUNT
4	VFCBWORK	4		WORK AREA
8	VFCBLEN	2		LENGTH OF FCB BEING LOADED
A	VFCBPAP	2		FCB PAGE POSITION
C	VFCBCPC	2		CURRENT PAGE COUNTER
E	VFCBFCT	2		CURRENT FCB LINE COUNTER
10	VFCBFLG2	1	V*3	WORK FLAGS
	Values defined in VFCBFLG2			
	80 VFCBEXT			EXTENDED FCB WAS LOADED
	10 VFCBDUPL			DUPLICATION WAS TEMPORARILY ENABLED
11	VFCBNDEX	1	V*4	INDEX BYTE VALUE
12	VFCBLOAD	260		FORM CARRIAGE CONTROL BUFFER

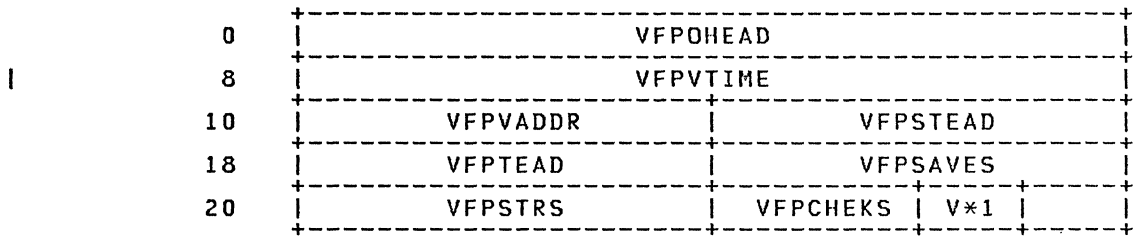
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VFCBCHL	0003	..	VFCBDUPL	0010	10	VFCBFLG2	0010	..	VFCBLOAD	0012	..
VFCBCMD	0002	40	VFCBEOF	0002	80	VFCBFOLD	0002	20	VFCBNDEX	0011	..
VFCBCNT	0000	..	VFCBEXO	0002	02	VFCBFSET	0002	10	VFCBPAP	000A	..
VFCBCPC	000C	..	VFCBEXT	0010	80	VFCBLEN	0008	..	VFCBSIZE	....	23
VFCBDFCB	0002	04	VFCBFCT	000E	..	VFCBLFCB	0002	08	VFCBWORK	0004	..
VFCBDIAG	0002	01	VFCBFLAG	0002	..						

VFPLIST: VECTOR FACILITY POINTER LIST

VFPLIST contains counters and pointers for a given vector facility. VFPLIST is found in VECTOR copy.



SIZE

VFPLIST SIZE IN BYTES (VFPSIZE) 28

Disp	Name	Len	Key	Description
0	VFPOHEAD	8		CP VECTOR FACILITY OVERHEAD TIME
8	VFPVTIME	8		VIRTUAL MACHINE USAGE TIME
10	VFPVADDR	4		VADDR OF THIS PROC'S SAVE AREA PAGE
14	VFPSTEAD	4		ADDRESS OF THIS FRAME'S STE,
18	VFPPTEAD	4		AND ADDRESS OF THIS FRAME'S PTE
1C	VFPSAVES	4		COUNT OF THIS PROC'S VR SAVES,
20	VFPRSTRS	4		AND COUNT OF THE RESTORES
24	VFPCHEKS	2		'VECTOR SOURCE' MACHINE CHECKS
26	VFPSTAT	1	V*1	VECTOR FACILITY STATUS

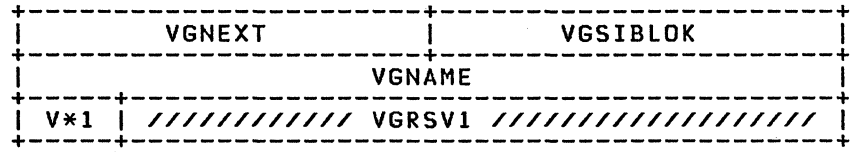
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VFPADDR	10	VFPSAVES	1C	VFPSTEAD	14	VFPTEAD	18
VFPCHEKS	24	VFPSTAT	26	VFPSTRS	20	VFPVTIME	08
VFPOHEAD	00						

VGBLOK: VIRTUAL MACHINE GROUP BLOCK

VGBLOK contains data describing a particular virtual machine group. Each virtual machine group has its own VGBLOK. VGBLOK is found in VGBLOK COPY.



SIZE

VGBLOK SIZE IN DOUBLEWORDS (VGSIZE) 3

Disp	Name	Len	Key	Description
0	VGNEXT	4		ADDRESS OF NEXT VGBLOK
4	VGSIBLOK	4		ADDRESS OF FIRST SIGNAL BLOCK
8	VGNAME	8		VM GROUP NAME
10	VGFLAG	1	V*1	VM GROUP FLAGS
	Values defined in VGFLAG			
80	VGTRAP			GROUP ENABLED FOR CPTRAP
11	VGRSV1	7		RESERVED FOR IBM USE

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VGFLAG   0010  ..   VGNEXT   0000  ..   VGSIZE   ....   3   VGTRAP   0010  80
VGNAME   0008  ..   VGSIBLOK 0004  ..
```

VMABLOK: SHARED SYSTEMS CONTROL ADDITION TO VMBLOK

VMABLOK contains the name of a shared system, a pointer to the share table (SHRTABLE), and a pointer to the next VMABLOK. The VMASSIST field in the VMBLOK points to the VMABLOK. VMABLOK is found in SHRTABLE copy.

SIZE

VMABLOK SIZE IN DOUBLEWORDS (VMASIZE) 2

Disp	Name	Len	Key	Description
0	VMAFPNT	4		FORWARD POINTER TO NEXT VMABLOK
4	VMASHRBK	4		ADDRESS OF SHARE TABLE (SHRTABLE)
8	VMANAME	8		IDENTIFICATION OF NAMED SHARED SYSTEM

CROSS REFERENCE

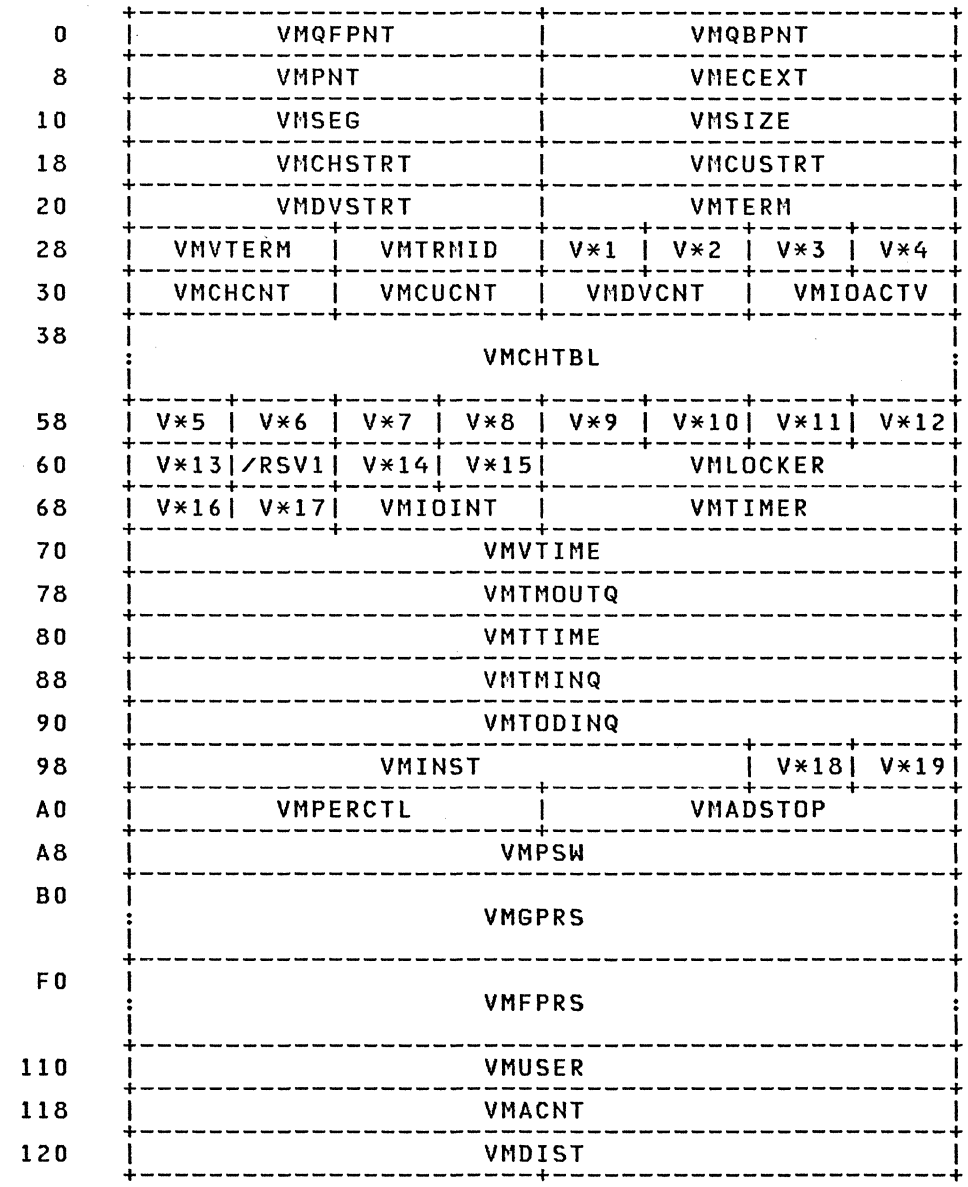
(Name Disp Value)

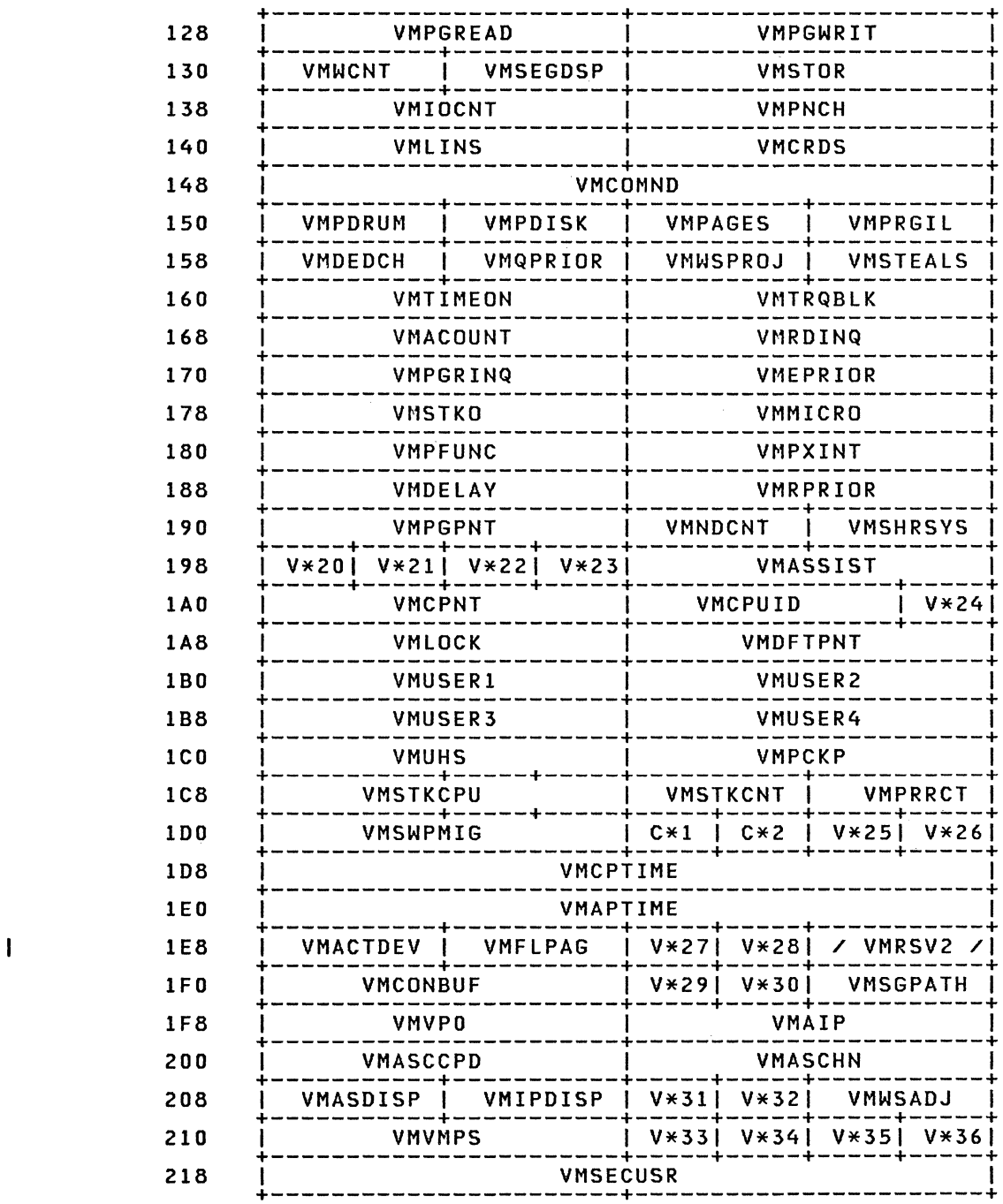
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

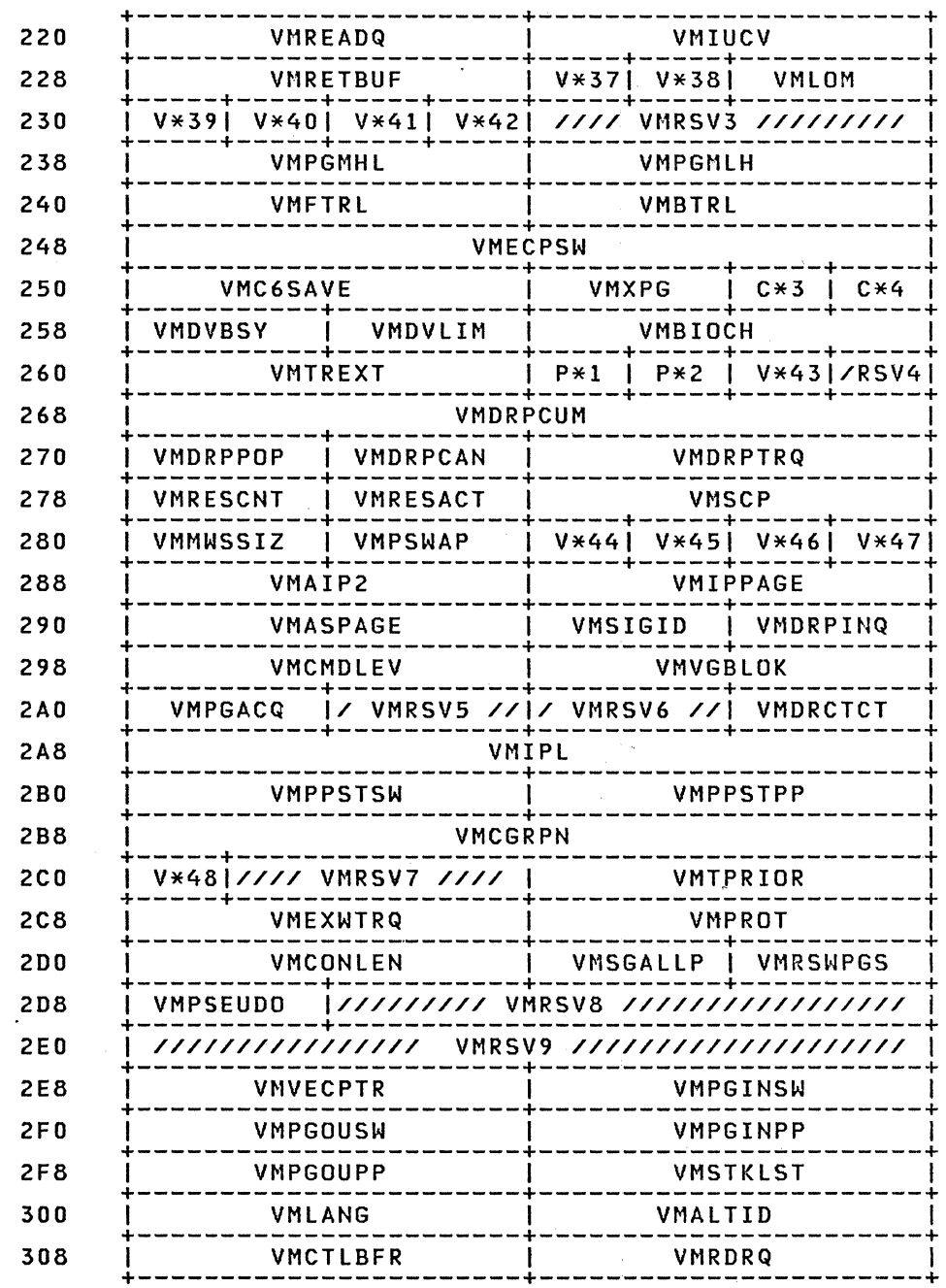
VMAFPNT 0000 .. VMANAME 0008 .. VMASHRBK 0004 .. VMASIZE 0000 02

VMBLOK: VIRTUAL MACHINE CONTROL BLOCK

VMBLOK is used as the primary control block for almost all activities related to a single virtual machine. This block contains the following information: the dispatch and priority level of the virtual machine, the virtual machine's processor registers, preferred virtual machine option values, and other values significant to virtual machine operations. The ASYSVM field of the PSA points to the system VMBLOK. VMBLOK is found in VMBLOK COPY.







SIZE

VMBLOK SIZE IN DOUBLEWORDS (VMBSIZ) 62

Disp	Name	Len	Key	Description
0	VMQFPNT	4		ADDRESS OF NEXT VMBLOK IN QUEUE
4	VMQBPNT	4		ADDRESS OF PREVIOUS VMBLOK IN QUEUE
8	VMPNT	4		ADDRESS (CYCLIC) OF NEXT VMBLOK
C	VMECEXT	4		ECBLOK ADDRESS
C	VMVCR0	4		VIRTUAL CONTROL REG 0 FOR NON-EC MACHINE
10	VMSEG	4		ADDRESS OF VMSEGTBL
14	VMSIZE	4		TEMPORARY STORAGE SIZE IN BYTES
18	VMCHSTRT	4		ADDRESS OF VCHBLOK TABLE
1C	VMCUSTRT	4		ADDRESS OF VCUBLOK TABLE
20	VMDVSTRT	4		ADDRESS OF VDEVBLOK TABLE
24	VMTERM	4		ADDRESS OF RDEVBLOK RELATED TO TERMINAL
28	VMVTERM	2		DISPLACEMENT TO VIRTUAL CONSOLE VDEVBLOK
2A	VMTRMID	2		RESOURCE ID OF REAL TERMINAL IF 37XX
2C	VMTLEND	1	V*1	TERMINAL LINE END CHARACTER
2D	VMTLDEL	1	V*2	TERMINAL LINE DELETE CHARACTER
2E	VMTCDEL	1	V*3	TERMINAL CHARACTER DELETE CHARACTER
2F	VMTESCP	1	V*4	TERMINAL ESCAPE CHARACTER
30	VMCHCNT	2		VIRTUAL CHANNEL COUNT
32	VMCUCNT	2		VIRTUAL CONTROL UNIT COUNT
34	VMDVCNT	2		VIRTUAL DEVICE COUNT
36	VMIOACTV	2		ACTIVE CHANNEL MASK
38	VMCHTBL	32		CHANNELS ATTACHED - VMCHSTRT INDEX
58	VMRSTAT	1	V*5	VIRTUAL MACHINE RUNNING STATUS

Values defined in VMRSTAT

FE	VMNORUN	USER NOT RUNNABLE SUMMARY
EE	VMCPWAIT	BIT SUMMARY
87	VMLONGWT	LONG WAIT SUMMARY
80	VMCFWAIT	WAITING - EXECUTING CONSOLE FUNCTION
40	VMPGWAIT	WAITING - PAGING OPERATION(S)
20	VMIOWAIT	WAITING - SCHEDULED IOBLOK START
10	VMPSWAIT	WAITING - VIRTUAL PSW WAIT STATE
08	VMEXWAIT	WAITING - INSTRUCTION SIMULATION
04	VMLOGON	USER NOT YET LOGGED ON
02	VMLOGOFF	USER LOGGING OFF
01	VMIDLE	VIRTUAL MACHINE IN IDLE WAIT STATE

59 VMDSTAT 1 V*6 VIRTUAL MACHINE DISPATCHING STATUS

Values defined in VMDSTAT

80	VMDSP	VIRTUAL MACHINE IS DISPATCHED RUNUSER
40	VMTSEND	VIRTUAL MACHINE HAS GONE COMPUTE BOUND
20	VMQSEND	VIRTUAL MACHINE IN-QUEUE TIME SLICE END
10	VMTIO	VIRTUAL MACHINE IS IN TIO BUSY LOOP
08	VMRUN	VIRTUAL MACHINE RUNNABLE
04	VMINQ	VIRTUAL MACHINE IN A QUEUE
02	VMELIG	VIRTUAL MACHINE IN ELIGIBLE LIST
01	VMDSPCH	USE DISPATCH PATH 'DMKDSPCH'

5A VMOSTAT 1 V*7 VIRTUAL MACHINE OPERATING STATUS

Values defined in VMOSTAT

80	VMSYSOP	VIRTUAL MACHINE IS SYSTEM OPERATOR
40	VMSHR	VIRTUAL MACHINE RUNNING SHARED SYSTEM
20	VMSLEEP	VIRTUAL MACHINE IN SLEEP STATE
10	VMDISC	VIRTUAL MACHINE CONSOLE DISCONNECTED
08	VMCFRUN	VIRTUAL MACHINE RUNNING IN CF MODE
04	VMVIRCF	VIRTUAL MACHINE EXECUTING VIRTUAL CF
02	VMCF	VIRTUAL MACHINE EXECUTING CF
01	VMKILL	VIRTUAL MACHINE TO BE LOGGED OFF

5B VMQSTAT 1 V*8 VIRTUAL MACHINE QUEUEING STATUS

Values defined in VMQSTAT

80	VMPRIDSP	VIRTUAL MACHINE ELIGIBLE FOR Q1
40	VMAUTLOG	AUTOLOGGED USER IN DISCONNECT MODE
20	VMWSERNG	LAST WORKING SET ERROR WAS NEGATIVE
10	VMDLDRP	DELAYED QUEUE DROP FLAG
08	VMWSCHG	FORCE NEW WORKING SET ON QUEUE ENTRY
04	VMINHMIG	PAGE MIGRATION SWITCH
02	VMCFREAD	VIRTUAL MACHINE WITH CF READ UP
01	VMPA2APL	REFLECT EXTERNAL INTERRUPT TO MACHINE

5C VMPSTAT 1 V*9 VIRTUAL MACHINE PROCESSING STATUS

Values defined in VMPSTAT

80	VMISAM	VIRTUAL MACHINE HAS ISAM CCW CHECKING
40	VMV370R	VIRTUAL MACHINE CAN USE EXTENDED FORMAT
20	VMRPAGE	VIRTUAL MACHINE MAY RESERVE PAGES
10	VMREAL	VIRTUAL MACHINE HAS VIRT=REAL OPTION
08	VMNOTRAN	NO CCW TRANSLATION FOR VIRT=REAL USER
04	VMNSHR	RUNNING NON-SHARED NAMED SAVED SYSTEM
02	VMACCOUN	VIRTUAL MACHINE MAY PUNCH ACCOUNT CARD
01	VMPAGEX	VM RECEIVING PSEUDO PAGE FAULTS

5D VMESTAT 1 V*10 VIRTUAL MACHINE CONTROL STATUS

Values defined in VMESTAT

EF	VMECZAP	ALL BITS EXCEPT VMMICSVC
80	VMSHADT	SHADOW TABLES ARE PRESENT
40	VMPERCM	VRT/CP PER ACTIVE
20	VMBADCR0	VIRTUAL C-REG ZERO IN INVALID
10	VMMICSVC	USER WANTS SVCS DONE BY VM ASSIST
08	VMEXTCM	VIRTUAL MACHINE IN EXTENDED CONTROL MODE
04	VMNEWCR0	VIRTUAL CONTROL REGISTER ZERO HAS CHANGED
02	VMINVSEG	ALL SHADOW TABLES INVALID
01	VMINVPAG	SHADOW PAGE TABLES INVALID

```
5E   VMTRCTL    1 V*11 VIRTUAL MACHINE TRACING CONTROL

  Values defined in VMTRCTL

  80 VMTRPER            VIRTUAL PER TRACING ACTIVE
  78 VMTRINT            TRACE ALL USER INTERRUPTS
  40 VMTRSVC            TRACE USER SVC INSTRUCTIONS
  20 VMTRPRG            TRACE VIRTUAL PROGRAM INTERRUPTS
  10 VMTRIO             TRACE VIRTUAL I/O INTERRUPTS
  08 VMTREX             TRACE EXTERNAL INTERRUPTS
  04 VMTRPRV            TRACE USER PRIVILEGED INSTRUCTIONS
  02 VMTRSIO            TRACE VIRTUAL I/O INSTRUCTIONS
  01 VMTRBRIN           TRACE BRANCHES OR ALL INSTRUCTIONS

5F   VMMLEVEL   1 V*12 MESSAGE LEVEL

  Values defined in VMMLEVEL

  80 VMMSGON            RECEIVING MESSAGES
  40 VMWNGON            RECEIVING WARNINGS
  20 VMMCODE            RECEIVING ERROR MESSAGE CODES
  10 VMMTEXT            RECEIVING TEXTS OF ERROR MESSAGES
  08 VMMLINED           LINE EDITING ON
  04 VMMACCON           RECEIVING ACCOUNTING INFORMATION
  02 VMMCPENV           TERMINAL ENVIROMENT IN CP MODE
  01 VMMSTMP            TIME STAMP DESIRED ON CONSOLE OUTPUT

60   VMQLEVEL   1 V*13 QUEUE LEVEL

  Values defined in VMQLEVEL

  80 VMQ1               VIRTUAL MACHINE IS INTERACTIVE
  40 VMCOMP             VIRTUAL MACHINE IS COMPUTE BOUND
  20 VMHIPRI            VIRTUAL MACHINE IS HIGHEST PRIORITY
  10 VMLOPRI            VIRTUAL MACHINE IS LOWEST PRIORITY
  08 VMAEX              VIRTUAL MACHINE IS ASSURED EXECUTION
  04 VMAEXP             VIRTUAL MACHINE IS ASSURED PERCENTAGE
  02 VMQ3               VIRTUAL MACHINE USING MULTIPLE QUEUE 2
  02 VMDROP1            VIRTUAL MACHINE DROPPED FROM QUEUE 1
  01 VMFS               USING MORE THAN FAIR SHARE FLAG

61   RSV1               RESERVED FOR IBM USE

62   VMTLEVEL   1 V*14 TIMER LEVEL

  Values defined in VMTLEVEL

  80 VMTON              VIRTUAL TIMER RUNNING
  80 VMTIDLE            CPU TIMER CONTAINS IDLE WAIT STATE TIME
  40 VMRON              VIRTUAL REAL TIMER RUNNING
  40 VMTPAGE            CPU TIMER CONTAINS SYSTEM PAGE WAIT TIME
  20 VMCPUTMR           VIRTUAL CPU TIMER IN REAL CPU TIMER
  08 VMSTMPI            VIRTUAL INTERVAL TIMER REQUEST QUEUED
  08 VMTIONT            CPU TIMER CONTAINS I/O WAIT STATE TIME
  04 VMSTMPT            VIRTUAL CPU TIMER REQUEST QUEUED
  02 VMMSSFXP           MSSF INTERRUPT PENDING
  01 VMTMRINT           INTERRUPT FROM REAL CPU TIMER PENDING

63   VMPEND     1 V*15 INTERRUPT PENDING SUMMARY FLAG

  Values defined in VMPEND
```

```
   80 VMDEFSTK           DEFERRED TASK WAIT 4 SYSTEM LOCK
   40 VMPERPND           VIRTUAL PER INTERRUPT PENDING
   20 VMPRGPND           VIRTUAL PROGRAM INTERRUPT DEFERRED
   10 VMSVCPND           VIRTUAL SVC INTERRUPT DEFERRED
   08 VMPGPND            VIRTUAL PSEUDO PAGE FAULT PENDING
   04 VMRFLRST           REFLECT A RESTART INTERRUPT
   02 VMIOPND            VIRTUAL I/O INTERRUPT PENDING
   01 VMEXTPND           VIRTUAL EXTERNAL INTERRUPT PENDING

64    VMLOCKER    4      BASE ADDRESS OF HOLDER OF VMLOCK

68    VMFSTAT     1 V*16 VIRTUAL MACHINE FEATURE STATUS

  Values defined in VMFSTAT

   80 VMFBMX             VIRTUAL BLOCK MULTIPLEXER CHANNELS
   40 VMFAUTO            AUTOPOLL HANDSHAKE FEATURE IN USE
   20 VMFVTMR            USER REQUESTED VIRTUAL TIMER ASSIST
   10 VMMIH              USER REQUESTED MIH REFLECTION
   08 VMF370E            USER HAS VIRTUAL 370E
   04 VMNPWOCL           VM REQUESTED PASSWORD SUPPRESSION
   02 VMVMA              VIRTUAL MACHINE ASSIST
   01 VMDASF             VIRT. MACHINE DAS FEATURE

69    VMMLVL2     1 V*17 MESSAGE HANDLING INFORMATION

  Values defined in VMMLVL2

   80 VMMIMSG            RECEIVING ALL INFORMATIONAL MESSAGES
   40 VMMHLITE           HIGHLIGHT INPUT REDISPLAY
   20 VMMDIAL            USER IS DIALING
   10 VMMVMPRM           PROMPT CHARACTER NOT DESIRED
   08 VMTDIAG8           DIAGNOSE X'08' ALREADY DISPLAYED
   04 VMMNOCTL           CONTROL CHARACTERS NOT DESIRED
   02 VMOVRIDP           OVERRIDE PASSWORD SUPPRESSION

6A    VMIOINT     2      I/O INTERRUPT PENDING FLAGS

6C    VMTIMER     4      VIRTUAL TIMER VALUE - X'50'

70    VMVTIME     8      VIRTUAL CPU TIME USED - 2'S COMPLEMENT

78    VMTMOUTQ    8      TIME REMAINING IN QUEUE 1 - QUEUE 2

80    VMTTIME     8      TOTAL TIME WHILE IN SUPERVISOR STATE

88    VMTMINQ     8      VMTTIME VALUE AT QUEUE ENTRY

  Values defined in VMTMINQ

   88 VMTSOUTQ           SUPRV. TIME ALLOWED (REDEFINE

90    VMTODINQ    8      TOD CLOCK TIME STAMP AT QUEUE ENTRY

98    VMINST      6      VM PRIVILEGED OR TRACING INSTRUCTION

9E    VMUPRIOR    1 V*18 USER PRIORITY FROM DIRECTORY

9F    VMPSWDCT    1 V*19 INVALID 'LINK' PASSWORD COUNT

A0    VMPERCTL    4      ADDRESS OF PER CONTROL BLOCK

A4    VMADSTOP    4      ADDRESS OF ADDRESS STOP CONTROL BLOCK

A8    VMPSW       8      VIRTUAL MACHINE PSW
```

B0	VMGPRS	64	VIRTUAL MACHINE GENERAL PURPOSE REGISTERS
F0	VMFPRS	32	VIRTUAL MACHINE FLOATING POINT REGISTERS
110	VMUSER	8	VIRTUAL MACHINE IDENTIFICATION
118	VMACNT	8	VIRTUAL MACHINE ACCOUNTING NUMBER
120	VMDIST	8	VIRTUAL MACHINE DISTRIBUTION CODE
128	VMPGREAD	4	TOTAL PAGE READS
12C	VMPGWRIT	4	TOTAL PAGE WRITES
130	VMWCNT	2	PAGE WAIT COUNT
132	VMSEGDSP	2	SEGTABLE DISPLACEMENT FROM START OF BLOCK
134	VMSTOR	4	PERMANENT STORAGE SIZE IN BYTES
138	VMIOCNT	4	VIRTUAL SIO COUNT FOR NON-SPOOLED I/O
13C	VMPNCH	4	VIRTUAL CARD COUNT - SPOOLED PUNCH
140	VMLINS	4	VIRTUAL LINE COUNT - SPOOLED PRINTER
144	VMCRDS	4	VIRTUAL CARD COUNT - SPOOLED READER
148	VMCOMND	8	LAST CP COMMAND EXECUTED
150	VMPDRUM	2	COUNT OF USER PAGES ON DRUM
152	VMPDISK	2	COUNT OF USER PAGES ON DISK
154	VMPAGES	2	NUMBER OF CURRENTLY RESIDENT REAL PAGES
156	VMPRGIL	2	ILC FOR LATEST PROGRAM INTERRUPT
158	VMDEDCH	2	MASK FOR DEDICATED CHANNELS
15A	VMQPRIOR	2	PRIORITY IN DISPATCHING QUEUE
15C	VMWSPROJ	2	PROJECTED WORKING SET SIZE
15E	VMSTEALS	2	NUMBER OF WAITS FOR STOLEN PAGES
160	VMTIMEON	4	LOGON TIME - TOD CLOCK WORD ZERO
164	VMTRQBLK	4	ADDRESS OF TRQBLOK FOR REAL TIMER
168	VMACOUNT	4	ADDRESS OF USER ACCTBLOK
16C	VMRDINQ	4	PAGE READ TOTAL (VMPGREAD) AT QUEUE ENTRY
170	VMPGRINQ	4	SUM OF VMPAGES COUNT AT EACH PAGE READ
174	VMEPRIOR	4	ELIGIBLE LIST PRIORITY
178	VMSTKO	4	CONSOLE FUNCTION OUTPUT STACK
17C	VMMICRO	4	VM ASSIST - REAL CONTROL REGISTER 6
17C	VMMCR6	1	CR 6 - HARDWARE FLAG BYTE

Values defined in VMMCR6

```
    80 VMMFE              VM ASSIST FEATURE ENABLED
    40 VMMPROB            VIRTUAL MACHINE IN PROBLEM STATE
    20 VMMNOSK            VM ASSIST DOESN'T HANDLE SSK,ISK
    10 VMM360             360 OPS ONLY-NO ECMODE OPS ALLOWED
    08 VMMSVC             VM ASSIST DOES NOT HANDLE SVCS
    04 VMMSHADT           SHADOW TABLES PRESENT-EC, TRANS
    02 VMMCPAST           CP ASSIST FEATURE ENABLED
    01 VMMVTMR            VIRTUAL INTERVAL TIMER FEATURE ENABLED

17D   VMMADDR    3        CR 6 - ADDRESS OF VM ADDRESS LIST

180   VMPFUNC    4        PFNN FUNCTION TABLE

184   VMPXINT    4        EXTENDED EXTERNAL INTERRUPT STACK

188   VMDELAY    4        TRQBLOK FOR DELAYED SLEEP OR LOGOFF

18C   VMRPRIOR   4        RUNLIST DISPATCHING PRIORITY

190   VMPGPNT    4        ADDRESS OF LIST OF PGBLOKS

194   VMNDCNT    2        NON-DEFERRED PAGE READ COUNT

196   VMSHRSYS   2        NUMBER OF SHARED NAMED SYSTEMS

198   VMRBSC     1 V*20   3270 REMOTE DISPLAY LINE COUNT

199   VMCXSTAT   1 V*21   VMCF STATUS BYTE

   Values defined in VMCXSTAT

    80 VMBCAUTH           VMCF ACTIVE
    40 VMDFKILL           PREVENT FRETTING OF VMBLOK
    20 VMIOLOG            CONTROL REGISTER 14 IOLOG MASK
    10 VMVPOREL           DIAGNOSE '6C' ISSUED BY USER
    08 VMINVTLB           INVALIDATE REAL TLB BEFORE DISP
    04 VMSTBYPS           BYPASS SHADOW TBLS FOR V=R USER
    02 VMPOREL            PAGE ZERO RELOCATED FOR V=R USER
    01 VMSTFST            INVALIDATE FIRST SHADOW TBL ENTRY

199   VMVCR14    1        DATA FROM CR 14, PARALLELS ECBLOK

19A   VMAFF      1 V*22   AFFINITY REQUEST FIELD

   Values defined in VMAFF

    40 VMAFFON            AFFINITY SET ON

19B   VMLSTPRC   1 V*23   LAST PROCESSOR EXECUTED PROBLEM STATE

19C   VMASSIST   4        ADDRESS OF LIST OF VMABLOKS

1A0   VMCPNT    4        VMCBLOK ANCHOR

1A4   VMCPUID   3        CPUID SERIAL IN BINARY

1A7   VMNOECPS  1 V*24   ECPS FLAG BYTE

   Values defined in VMNOECPS

    40 VMNOQVM            QVM IS ACTIVE FOR USER
    20 VMNO370E           370E IS ACTIVE FOR USER

1A8   VMLOCK    4        LOCKWORD FOR CS LOCKING

1AC   VMDFTPNT  4        DEFERRED TASK ADDRESS
```

1B0	VMUSER1	4		RESERVED FOR INSTALLATION USE
1B4	VMUSER2	4		RESERVED FOR INSTALLATION USE
1B8	VMUSER3	4		RESERVED FOR INSTALLATION USE
1BC	VMUSER4	4		RESERVED FOR INSTALLATION USE
1C0	VMUHS	4		RECENT HISTORY USER CPU UTILIZATION
1C4	VMPCKP	4		USER PAGE READ CHECKPOINT
1C8	VMSTKCPU	4		CPEX/IOBLOKS STACKED ON THIS CPU
1CC	VMSTKCNT	2		COUNT OF STACKED IOB + CPEXBLOKS
1CE	VMPRRCT	2		COUNT OF PRIORITY CPEXBLOKS
1D0	VMSWPMIG	4		ADDRESS OF PSUEDO PAGE TABLE
1D4	VMFVRF	1	C*1	SET FAVORED PERCENTAGE FOR USER
1D5	VMCRTO	1	C*2	COMPUTE/ELAPSED RATIO
1D6	VMSHRPRC	1	V*25	PROCESSOR'S SHARED SEGMENTS
1D7	VMGRFTAB	1	V*26	GRAF VIRTUAL CONSOLE LOGICAL TAB
1D8	VMCPTIME	8		MAIN PROCESSOR SUPERVISOR TIME
1E0	VMAPTIME	8		ATTACHED PROCESSOR SUPERVISOR TIME
1E8	VMACTDEV	2		VDEV ADDRESS FOR LAST SIO/TIO/HIO
1EA	VMFLPAG	2		COUNT OF NONSHARED FLUSHED PAGES
1EC	VMSPMFLG	1	V*27	MISCELLANEOUS STATUS BYTE

Values defined in VMSPMFLG

80	VMLOGON2	VDEVBLOK GOTTEN DURING LOGON
40	VMSPMON	RECEIVING SPECIAL MESSAGES
20	VMSMSGON	PROCESSING SPECIAL MESSAGES
10	VMPVM	PVM USER INDICATOR
08	VMCPVIRT	CP UNDER CP SITUATION
04	VMCPSV76	SVC76 ISSUED
02	VMELOGOF	LOGOFF COMMAND
01	VMCFRD1	BACK UP OF VMCFREAD

1ED	VMIUSTA2	1	V*28	IUCV MESSAGE SYS SERVICE FLAGS

Values defined in VMIUSTA2

80	VMIUEMSG	EMSG VIA IUCV MESSAGE SERVICE
40	VMIUIMSG	IMSG VIA IUCV MESSAGE SERVICE
20	VMIUMSG	MSG VIA IUCV MESSAGE SERVICE
10	VMIUSMSG	SMSG VIA IUCV MESSAGE SERVICE
08	VMIUCPIO	CP I/O VIA IUCV MESSAGE SERVICE
04	VMIUVMIO	VM I/O VIA IUCV MESSAGE SERVICE
02	VMIUWNG	WNG VIA IUCV MESSAGE SERVICE
01	VMIUDEF	DEFER LOGOFF FOR IUCV COMPLETION

1EE	VMRSV2	2		RESERVED FOR IBM USE
1F0	VMCONBUF	4		VIRTUAL ADDRESS OF RESPONSE BUFFER

```
1F4   VMPSWDCA   1 V*29 INVALID 'AUTOLOG' PASSWORD COUNT

1F5   VMIUSTAT   1 V*30 IUCV STATUS

   Values defined in VMIUSTAT

   80 VMIUEXWT           IUCV ACTIVE FOR VIRTUAL MACHINE
   40 VMIUGLSV           GLOBAL SEVER IN PROCESS
   20 VMIUCVWT           IN IUCV MESSAGE WAIT STATE
   10 VMIPXINT           DUMMY XINTBLOK HAS BEEN STACKED
   08 VMNOQ2             DON'T ALLOW THIS USER IN Q2 OR Q3
   04 VMNOQ3             DON'T ALLOW THIS USER ON QUEUE 3
   02 VMNOFLU            DON'T FLUSH USERS PAGES ON QDROP
   01 VMNOFLSH           DON'T FLUSH PAGES ON QUEUE DROP

1F6   VMSGPATH   2       IUCV *MSG SERVICE PATH ID

1F8   VMVPO      4       REAL ADDRESS OF VIRTUAL PAGE ZERO

1FC   VMAIP      4       ADDRESS OF ACCOUNTING INTERFACE AREA

200   VMASCCPD   4       CCPD OF USER PAGE OVER IPL BY DEVICE

204   VMASCHN    4       CHAIN OF VMSAVE USERS

208   VMASDISP   2       SNT DISP FOR USER WITH VMSAVE ENABLED

20A   VMIPDISP   2       SNT DISP FOR USER IPLED FROM VMSAVE SYS

20C   VMSVSTAT   1 V*31 VMSAVE STATUS

   Values defined in VMSVSTAT

   80 VMAS               ENABLED FOR VMSAVE
   40 VMASIPL            IPLD FROM VMSAVE SYSTEM
   20 VMIPLDEV           IPLD FROM A DEVICE
   10 VMLGFORC           INDICATE FORCED LOGOFF
   08 VMLGNMSG           INDICATE NO OPERATOR MESSAGE
   04 VMPMENAB           PMA SPECIFIED IN DIRECTORY
   02 VMLGHOLD           HOLD LINE AFTER MESSAGE, KEEP ENABLE
   01 VMPRG013           PROGRAM INTERRUPT X'13' PENDING

20D   VMCPO      1 V*32 CP OUTPUT

20E   VMWSADJ    2       WORKING SET SIZE ADJUSTED

210   VMVMPS     4       HOST'S NUMBER OF LOGICAL DEVICES

210   VMVSPACE   4       LDSF TABLE'S PSEUDO VMBLOK ADDRESS

210   VMLDCTRS   4       ADDRESS OF LDSF TABLE'S PAGE COUNTERS

214   VMVMO      1 V*33 VM OUTPUT

215   VMINR      1 V*34 INPUT REDISPLAY

216   VMINA      1 V*35 INPUT AREA

217   VMSTA      1 V*36 STATUS AREA

   Values defined in VMSTA
```

```
    00 VMSDEF              DEFAULT SCREEN COMMAND VALUE
    F0 VMHHMSK             HIGHLIGHT DATA MASK
    10 VMNOVRR             V=R AND DMKVRR IN SYSTEM, OR PMA
    0F VMCMSK              COLOR DATA MASK

 218   VMSECUSR   8        USERID OF SECONDARY USER

 220   VMREADQ    4        CPEXBLOKS FOR READS TO SECUSER

 224   VMIUCV     4        ADDRESS OF IUCVBLOK

 228   VMRETBUF   4        ADDRESS OF RETRIEVE BUFFER

 22C   VMGSTAT    1 V*37   GENERAL STATUS

    Values defined in VMGSTAT

    80 VMTRAP              INDICATOR OF THIS VIRTUAL MACH.
    40 VMTRAPI             THIS VMBLOK INVOKED THE 'TRAP'
    20 VMEV                VMPSW, VMGPRS, VMFPRS ARE VALID
    10 VMVPMUSR            USER IS PMAV GUEST
    04 VMSOP               START OTHER PROCESSOR
    02 VMPMUSER            USER IS PREFERRED (PMA) GUEST
    01 VMSTBYPM            STBYPASS ACTIVE BEFORE SPMODE

 22D   VMFRSN    1 V*38   REASON FOR V=R RECOVERY FAILURE

    Values defined in VMFRSN

    80 VMRFRC80            UNABLE TO RESET TRACING
    40 VMRFRC40            UNABLE TO RESET ADSTOP
    20 VMRFRC20            'NOTRANS' NOT ACTIVE
    10 VMRFRC10            PGM CHECK DURING SAVE/RESTORE
    08 VMRFRC08            NOT SAME V=R USER
    04 VMRFRC04            USER IN I/O OR INSTRUCTION WAIT

 22E   VMLOM      2        CODE OF MSG FOR USER AT LOGON

 230   VMPSWDCF   1 V*39   INVALID CFMODE 'AUTOLOG' PW COUNT

 231   VMCPUADD   1 V*40   PROC 'LPUADDR+1' VM IS 'USING'

 232   VMPATH     1 V*41   USER, MACHINE, AND LOCK SUMMARY

    Values defined in VMPATH

    F4 VMFSTUSR            BIT SUMMARY
    80 VMMICON             ON WHEN CPMICON IN CPSTAT2
    40 VMAPUOP             ON WHEN APUOPER IN APSTAT1
    20 VMSEGPRT            ON WHEN CPSEGPTR IN CPSTAT4
    10 VMOKTLB             ON WHEN TLB IS OK
    04 VMVBCM              INDICATES BC MODE USER
    02 VMIHIST             INTERRUPT HISTORY BIT
    01 VMLKHIST            LOCKING HISTORY BIT

 233   VMISTAT    1 V*42   MORE STATUS

    Values defined in VMISTAT

    80 VMLOGON1            LOGON IN PROGRESS
    40 VMIDATTN            DOUBLE ATTENTION DURING DISPLAY
    20 VMMIDMSG            MIDNITE MESSAGE ISSUED
    10 VMPAGQCN            PAGING FOR SPOOLED CONSOLE
    08 VMGROUP             IPL'ED NAME SYSTEM IS A GROUP
    04 VMDIAG98            USER AUTHORIZED FOR DIAG98
    02 VMVRR               V=R RECOVERY
```

01	VMCOMSRV			IUCV/APPC COMMUNICATION SERVER
234	VMRSV3	4		RESERVED FOR IBM USE
238	VMPGMHL	4		PAGE FRAME MOVES >16M TO <16M
23C	VMPGMLH	4		PAGE FRAME MOVES <16M TO >16M
240	VMFTRL	4		TRUE RUNLIST FORWARD POINTER
244	VMBTRL	4		TRUE RUNLIST BACKWARD POINTER
248	VMECPSW	8		SAVE AREA FOR INTERRUPT OLD PSW
250	VMC6SAVE	4		SAVE AREA FOR ACTIVE CR6
254	VMXPG	2		MAXIMUM VMPAGES COUNT IN-QUEUE
256	VMQ2CNT	1	C*3	CONSECUTIVE QUEUE 2 COUNT
257	VMQ3CNT	1	C*4	COUNT OF CONSECUTIVE Q2S
258	VMDVBSY	2		NUMBER OF ACTIVE HIGH SPEED DEVICES
25A	VMDVLIM	2		MACHINE VIRTUAL DEVICE LIMIT
25C	VMBIOCH	4		BLOCK I/O CHAIN
260	VMTREXT	4		ADDRESS OF EXTENDED TRACE CONTROL BLOCK
264	VMRLPROC	1	P*1	ID OF TRL WHEN VMBLOK IS ACTIVE
265	VMXUNSTK	1	P*2	FLAG TO PREVENT UNSTACKING
266	VMJSTAT	1	V*43	VIRTUAL MACHINE FLAGS

Values defined in VMJSTAT

40	VMSVC9	USING ACCELERATED SVC 9
20	VMSVCACL	USING ACCELERATED SVC'S
08	VMSVCACA	AUTHORIZED FOR ACCELERATED SVC'S
04	VMNOCPRD	NO 'CP READ' STATE DURING LINK
02	VMVCUNS	VCUNOSHR OPTION

268	VMDRPCUM	8		TIME USER HELD IN-Q VIA Q-DROP
270	VMDRPPOP	2		TIMES USER Q-DROPPED VIA DELAY
272	VMDRPCAN	2		TIMES Q-DROP DELAY WAS CANCELLED
274	VMDRPTRQ	4		Q-DROP DELAY TRQBLOK POINTER

Values defined in VMDRPTRQ

80	VMDRPSET	IN BYTE 0 OF VMDRPTRQ

274	VMDRPTS	4	QUEUE DROP DELAY TIME STAMP
278	VMRESCNT	2	SET RESERVED 'NN' AMOUNT
27A	VMRESACT	2	CURRENT RESERVED PAGE COUNT
27C	VMSCP	4	ADDRESS OF VM SWAP CONTROL BLOCK
280	VMMWSSIZ	2	SET MINWS 'NN' (MIN WORKING SET)

```
 282   VMPSWAP    2       PAGES NOW IN SWAP AREAS (TYPE=SW)

 284   VMSWSTAT   1 V*44  SWAP STATUS BYTE

    Values defined in VMSWSTAT

    80 VMSWWAIT           WAITING FOR SWAP IN
    40 VMSWQ1DR           LAST Q DROP WAS FROM Q1
    20 VMSWSCH            SWAP IN CPEXBLOK IS SCHEDULED
    08 VMSWTLWT           USER IN TRUE LONG WAIT
    04 VMTIMVAL           VMDRPTRQ OR VMDRPTS IS VALID

 285   VMSWPFL1   1 V*45  SWAP/TRIM FLAGS (AT Q-DROP)

    Values defined in VMSWPFL1

    80 VMWSNONE           ALL PAGES TO BE TRIMMED
    40 VMWSMIN            MIN WS TO BE USED
    20 VMWSINT            WORKING SET PAGES TO INTERACTIVE
    10 VMWSNINT           WORKING SET PAGES BACKGROUND
    08 VMWSNOQ            DO NOT SWAP WORKING SET PAGES

 286   VMSWPFL2   1 V*46  ADDITIONAL SWAP/TRIM FLAGS

    Values defined in VMSWPFL2

    80 VMMINWS            MIN. WORKING SET VALUE DEFINED

 287   VMMIGFLG   1 V*47  MIGRATION FLAG BITS

    Values defined in VMMIGFLG

    80 VMMIGACT           MIGRATION ACTIVE BIT
    40 VMNOSWPT           NO SWPTABLES TO MIGRATE
    20 VMSPLCLS           SPOOLID LIMIT EXCEEDED WHEN FILE CLOSED

 288   VMAIP2     4       ADDRESS OF SECOND PAGE OF AI AREA

 28C   VMIPPAGE   4       PAGE ADDRESS FOR USER IPL VMSAVE

 290   VMASPAGE   4       PAGE ADDRESS FOR USER WITH VMSAVE

 294   VMSIGID    2       SIGNAL ID

 296   VMDRPINQ   2       VMDRPCAN AT QUEUE ADD

 298   VMCMDLEV   4       USER CLASS LEVEL

 29C   VMVGBLOK   4       ADDRESS OF VGBLOK

 2A0   VMPGACQ    2       PAGES ACQUIRED (AFTER WS INIT)

 2A2   VMRSV5     2       RESERVED FOR IBM USE

 2A4   VMRSV6     2       RESERVED FOR IBM USE

 2A6   VMDRCTCT   2       DIRECTORY UPDATE COUNT

 2A8   VMIPL      8       CURRENTLY IPL'ED NAME SYSTEM

 2B0   VMPPSTSW   4       NO. OF SW PAGES IN PAGING ST.

 2B4   VMPPSTPP   4       NO. OF PP PAGES IN PAGING ST.

 2B8   VMCGRPN    8       GROUPNAME
```

	2C0	VMVFSTAT	1	V*48 VECTOR FACILITY STATUS FLAGS
		Values defined in VMVFSTAT		
		80 VMVFIMAF		VM HAS IMPLIED AFFINITY FOR VF
		40 VMVFVVAC		VM ISSUED A RESTORE VAC INSTR.
	2C1	VMRSV7	3	RESERVED FOR IBM USE
|	2C4	VMTPRIOR	4	TRUE RUN LIST PRIORITY
|	2C8	VMEXWTRQ	4	VMEXWAIT TRQBLOK ADDRESS
|	2CC	VMPROT	4	PROTBLOK ADDRESS
|	2D0	VMCONLEN	4	BYTES LEFT IN RESPONSE BUFFER
|	2D4	VMSGALLP	2	IUCV *MSGALL SERVICE PATH ID
|	2D6	VMRSWPGS	2	NUMBER OF RESIDENT SWAPPABLE PAGES
|	2D8	VMPSEUDO	2	NUMBER OF RESIDENT PSEUDO PAGES
|	2D9	VMRSV8	6	RESERVED FOR IBM USE
|	2E0	VMRSV9	8	RESERVED FOR IBM USE
|	2E8	VMVECPTR	4	POINTER TO VECBLOK
|	2EC	VMPGINSW	4	READS FROM TYPE=SW PAGING STORAGE
	2F0	VMPGOUSW	4	WRITES TO TYPE=SW PAGING STORAGE
	2F4	VMPGINPP	4	READS FROM TYPE=PP PAGING STORAGE
	2F8	VMPGOUPP	4	WRITES TO TYPE=PP PAGING STORAGE
|	2FC	VMSTKLST	4	LAST LINE OF CONSOLE OUTPUT
|	300	VMLANG	4	LANGBLOK ADDRESS
|	304	VMALTID	4	ALTBLOK ADDRESS
|	308	VMCTLBFR	4	IUCV DELAYED CONTROL BUFFER ADDRESS
|	30C	VMRDRQ	4	POINTER TO RDR HASH TABLE ENTRY

CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

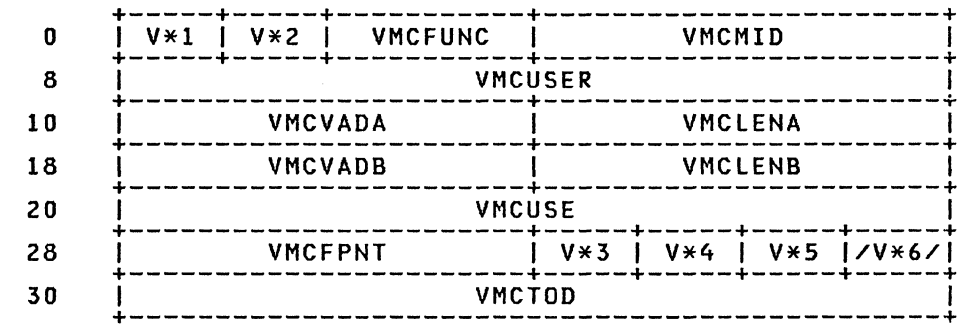
VMACCOUN	005C	02	VMAFFON	019A	40	VMASCHN	0204	..	VMBIOCH	025C	..
VMACNT	0118	..	VMAIP	01FC	..	VMASDISP	0208	..	VMBSIZ	....	62
VMACOUNT	0168	..	VMAIP2	0288	..	VMASIPL	020C	40	VMBSIZE	030C	..
VMACTDEV	01E8	..	VMALTID	0304	..	VMASPAGE	0290	..	VMBTRL	0244	..
VMADSTOP	00A4	..	VMAPTIME	01E0	..	VMASSIST	019C	..	VMCF	005A	02
VMAEX	0060	08	VMAPUOP	0232	40	VMAUTLOG	005B	40	VMCFRD1	01EC	01
VMAEXP	0060	04	VMAS	020C	80	VMBADCRO	005D	20	VMCFREAD	005B	02
VMAFF	019A	..	VMASCCPD	0200	..	VMBCAUTH	0199	80	VMCFRUN	005A	08

VMCFWAIT	0058	80	VMDFKILL	0199	40	VMIOLOG	0199	20	VMMPROB	017C	40
VMCGRPN	02B8	..	VMDFTPNT	01AC	..	VMIOPND	0063	02	VMMSGON	005F	80
VMCHCNT	0030	..	VMDIAG98	0233	04	VMIOWAIT	0058	20	VMMSHADT	017C	04
VMCHSTRT	0018	..	VMDISC	005A	10	VMIPDISP	020A	..	VMMSSFXP	0062	02
VMCHTBL	0038	..	VMDIST	0120	..	VMIPL	02A8	..	VMMSTMP	005F	01
VMCLANY	0000	..	VMDLDRP	005B	10	VMIPLDEV	020C	20	VMMSVC	017C	08
VMCLASSA	0000	..	VMDRCTCT	02A6	..	VMIPPAGE	028C	..	VMMTEXT	005F	10
VMCLASSB	0000	..	VMDROP1	0060	02	VMIPXINT	01F5	10	VMMVMPRM	0069	10
VMCLASSC	0000	..	VMDRPCAN	0272	..	VMISAM	005C	80	VMMVTMR	017C	01
VMCLASSD	0000	..	VMDRPCUM	0268	..	VMISTAT	0233	..	VMMWSSIZ	0280	..
VMCLASSE	0000	..	VMDRPINQ	0296	..	VMIUCPIO	01ED	08	VMM360	017C	10
VMCLASSF	0000	..	VMDRPPOP	0270	..	VMIUCV	0224	..	VMNDCNT	0194	..
VMCLASSG	0000	..	VMDRPSET	0274	80	VMIUCVWT	01F5	20	VMNEWCRO	005D	04
VMCLASSH	0000	..	VMDRPTRQ	0274	..	VMIUDEF	01ED	01	VMNOCPRD	0266	04
VMCLASSI	0000	..	VMDRPTS	0274	..	VMIUEMSG	01ED	80	VMNOECPS	01A7	..
VMCLASSJ	0000	..	VMDSP	0059	80	VMIUEXWT	01F5	80	VMNOFLSH	01F5	01
VMCLASSK	0000	..	VMDSPCH	0059	01	VMIUGLSV	01F5	40	VMNOFLU	01F5	02
VMCLASSL	0000	..	VMDSTAT	0059	..	VMIUIMSG	01ED	40	VMNOQVM	01A7	40
VMCLASSM	0000	..	VMDVBSY	0258	..	VMIUMSG	01ED	20	VMNOQ2	01F5	08
VMCLASSN	0000	..	VMDVCNT	0034	..	VMIUSMSG	01ED	10	VMNOQ3	01F5	04
VMCLASSO	0000	..	VMDVLIM	025A	..	VMIUSTAT	01F5	..	VMNORUN	0058	FE
VMCLASSP	0000	..	VMDVSTRT	0020	..	VMIUSTA2	01ED	..	VMNOSWPT	0287	40
VMCLASSQ	0000	..	VMECEXT	000C	..	VMIUVMIO	01ED	04	VMNOTRAN	005C	08
VMCLASSR	0000	..	VMECPSW	0248	..	VMIUWNG	01ED	02	VMNOVRR	0217	10
VMCLASSS	0000	..	VMECZAP	005D	EF	VMJSTAT	0266	..	VMNO370E	01A7	20
VMCLASST	0000	..	VMELIG	0059	02	VMKILL	005A	01	VMNPWOCL	0068	04
VMCLASSU	0000	..	VMELOGOF	01EC	02	VMLANG	0300	..	VMNSHR	005C	04
VMCLASSV	0000	..	VMEPRIOR	0174	..	VMLDCTRS	0210	..	VMOKTLB	0232	10
VMCLASSW	0000	..	VMESTAT	005D	..	VMLGFORC	020C	10	VMOSTAT	005A	..
VMCLASSX	0000	..	VMEV	022C	20	VMLGHOLD	020C	02	VMOVRIDP	0069	02
VMCLASSY	0000	..	VMEXTCM	005D	08	VMLGNMSG	020C	08	VMPAGES	0154	..
VMCLASSZ	0000	..	VMEXTPND	0063	01	VMLINS	0140	..	VMPAGEX	005C	01
VMCLASS1	0000	..	VMEXWAIT	0058	08	VMLKHIST	0232	01	VMPAGQCN	0233	10
VMCLASS2	0000	..	VMEXWTRQ	02C8	..	VMLOCK	01A8	..	VMPATH	0232	..
VMCLASS3	0000	..	VMFAUTO	0068	40	VMLOCKER	0064	..	VMPA2APL	005B	01
VMCLASS4	0000	..	VMFBMX	0068	80	VMLOGOFF	0058	02	VMPCKP	01C4	..
VMCLASS5	0000	..	VMFLPAG	01EA	..	VMLOGON	0058	04	VMPDISK	0152	..
VMCLASS6	0000	..	VMFPRS	00F0	..	VMLOGON1	0233	80	VMPDRUM	0150	..
VMCLNULL	0000	..	VMFRSN	022D	..	VMLOGON2	01EC	80	VMPEND	0063	..
VMCMDLEV	0298	..	VMFS	0060	01	VMLOM	022E	..	VMPERCM	005D	40
VMCMSK	0217	0F	VMFSTAT	0068	..	VMLONGWT	0058	87	VMPERCTL	00A0	..
VMCOMND	0148	..	VMFSTUSR	0232	F4	VMLOPRI	0060	10	VMPERPND	0063	40
VMCOMP	0060	40	VMFTRL	0240	..	VMLSTPRC	019B	..	VMPFUNC	0180	..
VMCOMSRV	0233	01	VMFVRF	01D4	..	VMMACCON	005F	04	VMPGACQ	02A0	..
VMCONBUF	01F0	..	VMFVTMR	0068	20	VMMADDR	017D	..	VMPGINPP	02F4	..
VMCONLEN	02D0	..	VMF370E	0068	08	VMMCODE	005F	20	VMPGINSW	02EC	..
VMCPNT	01A0	..	VMGPRS	00B0	..	VMMCPAST	017C	02	VMPGMHL	0238	..
VMCPO	020D	..	VMGRFTAB	01D7	..	VMMCPENV	005F	02	VMPGMLH	023C	..
VMCPSV76	01EC	04	VMGROUP	0233	08	VMMCR6	017C	..	VMPGOUPP	02F8	..
VMCPTIME	01D8	..	VMGSTAT	022C	..	VMMDIAL	0069	20	VMPGOUSW	02F0	..
VMCPUADD	0231	..	VMHIPRI	0060	20	VMMFE	017C	80	VMPGPND	0063	08
VMCPUID	01A4	..	VMHMSK	0217	F0	VMMHLITE	0069	40	VMPGPNT	0190	..
VMCPUTMR	0062	20	VMIDATTN	0233	40	VMMICON	0232	80	VMPGREAD	0128	..
VMCPVIRT	01EC	08	VMIDLE	0058	01	VMMICRO	017C	..	VMPGRINQ	0170	..
VMCPWAIT	0058	EE	VMIHIST	0232	02	VMMICSVC	005D	10	VMPGWAIT	0058	40
VMCRDS	0144	..	VMINA	0216	..	VMMIDMSG	0233	20	VMPGWRIT	012C	..
VMCRTO	01D5	..	VMINHMIG	005B	04	VMMIGACT	0287	80	VMPMENAB	020C	04
VMCTLBFR	0308	..	VMINQ	0059	04	VMMIGFLG	0287	..	VMPMUSER	022C	02
VMCUCNT	0032	..	VMINR	0215	..	VMMIH	0068	10	VMPNCH	013C	..
VMCUSTRT	001C	..	VMINST	0098	..	VMMIMSG	0069	80	VMPNT	0008	..
VMCXSTAT	0199	..	VMINVPAG	005D	01	VMMINWS	0286	80	VMPPSTPP	02B4	..
VMC6SAVE	0250	..	VMINVSEG	005D	02	VMMLEVEL	005F	..	VMPPSTSW	02B0	..
VMDASF	0068	01	VMINVTLB	0199	08	VMMLINED	005F	08	VMPRGIL	0156	..
VMDEDCH	0158	..	VMIOACTV	0036	..	VMMLVL2	0069	..	VMPRGPND	0063	20
VMDEFSTK	0063	80	VMIOCNT	0138	..	VMMNOCTL	0069	04	VMPRG013	020C	01
VMDELAY	0188	..	VMIOINT	006A	..	VMMNOSK	017C	20	VMPRIDSP	005B	80

VMPROT	02CC	..	VMRSWPGS	02D6	..	VMSWSCH	0284	20	VMTTIME	0080	..
VMPRRCT	01CE	..	VMRUN	0059	08	VMSWSTAT	0284	..	VMUHS	01C0	..
VMPSEUDO	02D8	..	VMSCP	027C	..	VMSWTLWT	0284	08	VMUPRIOR	009E	..
VMPSTAT	005C	..	VMSDEF	0217	00	VMSWWAIT	0284	80	VMUSER	0110	..
VMPSW	00A8	..	VMSECUSR	0218	..	VMSYSOP	005A	80	VMUSER1	01B0	..
VMPSWAIT	0058	10	VMSEG	0010	..	VMTCDEL	002E	..	VMUSER2	01B4	..
VMPSWAP	0282	..	VMSEGDSP	0132	..	VMTDIAG8	0069	08	VMUSER3	01B8	..
VMPSWDCA	01F4	..	VMSEGPRT	0232	20	VMTERM	0024	..	VMUSER4	01BC	..
VMPSWDCF	0230	..	VMSGALLP	02D4	..	VMTESCP	002F	..	VMVBCM	0232	04
VMPSWDCT	009F	..	VMSGPATH	01F6	..	VMTIDLE	0062	80	VMVCR0	000C	..
VMPVM	01EC	10	VMSHADT	005D	80	VMTIMEON	0160	..	VMVCR14	0199	..
VMPXINT	0184	..	VMSHR	005A	40	VMTIMER	006C	..	VMVCUNS	0266	02
VMPOREL	0199	02	VMSHRPRC	01D6	..	VMTIMVAL	0284	04	VMVECPTR	02E8	..
VMQBPNT	0004	..	VMSHRSYS	0196	..	VMTIO	0059	10	VMVFIMAF	02C0	80
VMQFPNT	0000	..	VMSIGID	0294	..	VMTIONT	0062	08	VMVFSTAT	02C0	..
VMQLEVEL	0060	..	VMSIZE	0014	..	VMTLDEL	002D	..	VMVFVVAC	02C0	40
VMQPRIOR	015A	..	VMSLEEP	005A	20	VMTLEND	002C	..	VMVGBLOK	029C	..
VMQSEND	0059	20	VMSMSGON	01EC	20	VMTLEVEL	0062	..	VMVIRCF	005A	04
VMQSTAT	005B	..	VMSOP	022C	04	VMTMINQ	0088	..	VMVMA	0068	02
VMQ1	0060	80	VMSPLCLS	0287	20	VMTMOUTQ	0078	..	VMVMO	0214	..
VMQ2CNT	0256	..	VMSPMFLG	01EC	..	VMTMRINT	0062	01	VMVMPS	0210	..
VMQ3	0060	02	VMSPMON	01EC	40	VMTODINQ	0090	..	VMVPMUSR	022C	10
VMQ3CNT	0257	..	VMSTA	0217	..	VMTON	0062	80	VMVPO	01F8	..
VMRBSC	0198	..	VMSTBYPM	022C	01	VMTPAGE	0062	40	VMVPOREL	0199	10
VMRDINQ	016C	..	VMSTBYPS	0199	04	VMTPRIOR	02C4	..	VMVRR	0233	02
VMRDRQ	030C	..	VMSTEALS	015E	..	VMTRAP	022C	80	VMVSPACE	0210	..
VMREADQ	0220	..	VMSTFST	0199	01	VMTRAPI	022C	40	VMVTERM	0028	..
VMREAL	005C	10	VMSTKCNT	01CC	..	VMTRBRIN	005E	01	VMVTIME	0070	..
VMRESACT	027A	..	VMSTKCPU	01C8	..	VMTRCTL	005E	..	VMV370R	005C	40
VMRESCNT	0278	..	VMSTKLST	02FC	..	VMTREX	005E	08	VMWCNT	0130	..
VMRETBUF	0228	..	VMSTKO	0178	..	VMTREXT	0260	..	VMWNGON	005F	40
VMRFLRST	0063	04	VMSTMPI	0062	08	VMTRINT	005E	78	VMWSADJ	020E	..
VMRFRC04	022D	04	VMSTMPT	0062	04	VMTRIO	005E	10	VMWSCHG	005B	08
VMRFRC08	022D	08	VMSTOR	0134	..	VMTRMID	002A	..	VMWSERNG	005B	20
VMRFRC10	022D	10	VMSVCACA	0266	08	VMTRPER	005E	80	VMWSINT	0285	20
VMRFRC20	022D	20	VMSVCACL	0266	20	VMTRPRG	005E	20	VMWSMIN	0285	40
VMRFRC40	022D	40	VMSVCPND	0063	10	VMTRPRV	005E	04	VMWSNINT	0285	10
VMRFRC80	022D	80	VMSVC9	0266	40	VMTRQBLK	0164	..	VMWSNONE	0285	80
VMRLPROC	0264	..	VMSVSTAT	020C	..	VMTRSIO	005E	02	VMWSNOQ	0285	08
VMRON	0062	40	VMSWPFL1	0285	..	VMTRSVC	005E	40	VMWSPROJ	015C	..
VMRPAGE	005C	20	VMSWPFL2	0286	..	VMTSEND	0059	40	VMXPG	0254	..
VMRPRIOR	018C	..	VMSWPMIG	01D0	..	VMTSOUTQ	0088	88	VMXUNSTK	0265	..
VMRSTAT	0058	..	VMSWQ1DR	0284	40						

VMCBLOK: VIRTUAL MACHINE COMMUNICATION BLOCK

VMCBLOK contains data transfer and status information used by the virtual machine communication facility (VMCF). The VMCPNT field of the VMBLOK points to VMCBLOK. VMCBLOK is found in VMCBLOKS copy.



SIZE

VMCBLOK SIZE IN DOUBLEWORDS (VMCBSIZE) 7

Disp	Name	Len	Key	Description
0	VMCSTAT	1	V*1	VMCBLOK USER STATUS
	Values defined in VMCSTAT			
	80 VMCRESP			FINAL RESPONSE INTERRUPT
	40 VMCRJCT			MESSAGE REJECTED
	20 VMCPRTY			PRIORITY MESSAGE
	10 VMCNOFLM			MESSAGE TO USER WITH QDROP OFF USERS SET
1	VMCEFLG	1	V*2	DATA TRANSFER RETURN CODE
2	VMCFUNC	2		SUBFUNCTION CODE
2	VMCACNT	2		ACTIVE MESSAGE COUNT
4	VMCFLCNT	2		COUNT OF MESSAGES TO USERS WITH QDROP SET
4	VMCMID	4		MESSAGE IDENTIFIER
8	VMCUSER	8		SOURCE/SINK USERID (VMUSER)
10	VMCVADA	4		VADDR OF MESSAGE BUFFER
14	VMCLENA	4		LENGTH OF MESSAGE
18	VMCVADB	4		VADDR OF REPLY BUFFER (SEND/RECV ONLY)
1C	VMCLENB	4		LENGTH OF REPLY BUFFER (SEND/RECV ONLY)
20	VMCUSE	8		USER SUPPLIED DOUBLE-WORD
28	VMCFPNT	4		ADDRESS OF NEXT VMCBLOK

```
2C    VMCKEY      1 V*3   USER PSW KEY

2D    VMCCSTAT    1 V*4   VMCBLOK CONTROL STATUS

  Values defined in VMCCSTAT

  80 VMCCXINT             EXTERNAL INTERRUPT VMCBLOK
  40 VMCCRECP             TRANSACTION PROCESSED
  20 VMCCBUSY             VMCBLOK BUSY
  08 VMCCSTRT             PROCESSING STARTED

2E    VMCASTAT    1 V*5   VMCBLOK AUTHORIZATION STATUS

  Values defined in VMCASTAT

  80 VMCAAUTS             AUTHORIZED SPECIFIC
  40 VMCAPRTY             AUTHORIZED PRIORITY
  20 VMCAQIES             USER QUIESCING

2F    VMCRSV1     1 V*6   RESERVED FOR IBM USE

30    VMCTOD      8       TOD AT AUTH/BUILD
```

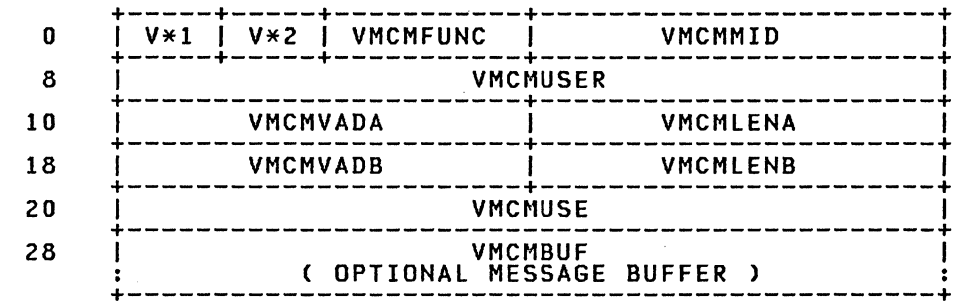
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VMCAAUTS 002E 80   VMCCSTAT 002D ..   VMCKEY   002C ..   VMCRJCT  0000 40
VMCACNT  0002 ..   VMCCSTRT 002D 08   VMCLENA  0014 ..   VMCSTAT  0000 ..
VMCAPRTY 002E 40   VMCCXINT 002D 80   VMCLENB  001C ..   VMCTOD   0030 ..
VMCAQIES 002E 20   VMCEFLG  0001 ..   VMCMID   0004 ..   VMCUSE   0020 ..
VMCASTAT 002E ..   VMCFLCNT 0004 ..   VMCNOFLM 0000 10   VMCUSER  0008 ..
VMCBSIZE .... 7    VMCFPNT  0028 ..   VMCPRTY  0000 20   VMCVADA  0010 ..
VMCCBUSY 002D 20   VMCFUNC  0002 ..   VMCRESP  0000 80   VMCVADB  0018 ..
VMCCRECP 002D 40
```

VMCMHDR: VMCF MESSAGE HEADER

VMCMHDR provides information to identify the special VMCF external interruptions. VMCMHDR is found in VMCBLOKS copy.



SIZE

VMCMHDR LENGTH IN BYTES (VMCMLEN) 28

Disp	Name	Len	Key	Description
0	VMCMSTAT	1	V*1	MESSAGE STATUS BYTE

Values defined in VMCMSTAT

80	VMCMRESP	FINAL RESPONSE INTERRUPT
40	VMCMRJCT	MESSAGE REJECTED
32	VMCSMAX	MAXIMUM ACTIVE MESSAGE LIMIT
20	VMCMPRTY	PRIORITY MESSAGE
14	VMC20	CANCEL - BUSY
13	VMC19	DATA TRANSFER ERROR
12	VMC18	USER NOT AUTHORIZED PRIORITY
11	VMC17	DESTRUCTIVE OVERLAP
10	VMC16	INCORRECT LENGTH
0F	VMC15	PAGING I/O ERROR
0E	VMC14	CANCEL - TOO LATE
0D	VMC13	SYNCHRONIZATION ERROR
0C	VMC12	MESSAGE NOT FOUND
0B	VMC11	CANCEL - REPLY CANCELLED
0A	VMC10	MESSAGE LIMIT EXCEEDED
09	VMC09	TARGET VIRTUAL MACHINE QUIESCING
08	VMC08	DUPLICATE MESSAGE
07	VMC07	SENDX DATA TOO LARGE
06	VMC06	PROTECTION VIOLATION
05	VMC05	USER NOT AVAILABLE
04	VMC04	USER NOT AUTHORIZED (SOURCE)
03	VMC03	PROTOCOL VIOLATION
02	VMC02	INVALID SUBFUNCTION CODE
01	VMC01	INVALID VIRTUAL ADDRESS
01	VMCXCODE	VMCF EXTERNAL INTERRUPT CODE
01	VMCXMASK	VMCF CR 0 EXTERNAL INTERRUPT MASK

1	VMCMEFLG	1	V*2	DATA TRANSFER RETURN CODE

2	VMCMFUNC	2	SUBFUNCTION CODE (ORIGINAL REQUEST)
4	VMCMMID	4	MESSAGE IDENTIFIER
8	VMCMUSER	8	SOURCE/SINK USERID (VMUSER)
10	VMCMVADA	4	VIRTUAL BUFFER ADDRESS
14	VMCMLENA	4	MESSAGE LENGTH
18	VMCMVADB	4	VIRTUAL REPLY BUFFER ADDRESS
1C	VMCMLENB	4	REPLY BUFFER LENGTH
20	VMCMUSE	8	USER-SUPPLIED DOUBLEWORD
28	VMCMBUF	0	OPTIONAL 'SENDX' DATA BUFFER

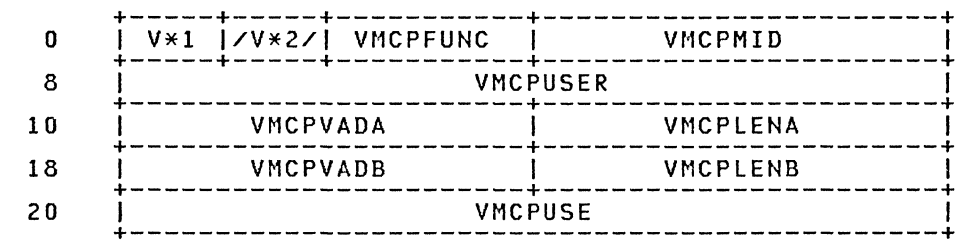
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VMCMBUF	0028	..	VMCMSTAT	0000	..	VMC03	0000	03	VMC12	0000	0C
VMCMEFLG	0001	..	VMCMUSE	0020	..	VMC04	0000	04	VMC13	0000	0D
VMCMFUNC	0002	..	VMCMUSER	0008	..	VMC05	0000	05	VMC14	0000	0E
VMCMLEN	0000	28	VMCMVADA	0010	..	VMC06	0000	06	VMC15	0000	0F
VMCMLENA	0014	..	VMCMVADB	0018	..	VMC07	0000	07	VMC16	0000	10
VMCMLENB	001C	..	VMCSMAX	0000	32	VMC08	0000	08	VMC17	0000	11
VMCMMID	0004	..	VMCXCODE	0000	01	VMC09	0000	09	VMC18	0000	12
VMCMPRTY	0000	20	VMCXMASK	0000	01	VMC10	0000	0A	VMC19	0000	13
VMCMRESP	0000	80	VMC01	0000	01	VMC11	0000	0B	VMC20	0000	14
VMCMRJCT	0000	40	VMC02	0000	02						

VMCPARM: VMCF PARAMETER LIST

VMCPARM contains the user-supplied parameters when a VMCF subfunction is executed. Register 1, the Diagnose instruction, points to VMCPARM. VMCPARM is found in VMCBLOKS copy.



SIZE

VMCPARM LENGTH IN BYTES (VMCPLEN) 28

Disp	Name	Len	Key	Description
0	VMCPFLG1	1	V*1	VMCPARM FLAG BYTE
	Values defined in VMCPFLG1			
	80 VMCPAUTS			AUTHORIZE SPECIFIC REQUEST
	40 VMCPPRTY			PRIORITY MESSAGE
	20 VMCPSMSG			RECEIVING SPECIAL MESSAGES
2	VMCPFUNC	2		SUBFUNCTION CODE
	Values defined in VMCPFUNC			
	00 VMCPAUTH			AUTHORIZE
	0B VMCPRJCT			REJECT
	0A VMCPIDEN			IDENTIFY
	09 VMCPRESM			RESUME
	08 VMCPQUIE			QUIESCE
	07 VMCPREPL			REPLY
	06 VMCPCANC			CANCEL
	05 VMCPRECV			RECEIVE
	04 VMCPSENX			SENDX
	03 VMCPSENR			SEND/RECV
	02 VMCPSEND			SEND
	01 VMCPUAUT			UNAUTHORIZE
	00 VMCPAUTH			AUTHORIZE
4	VMCPMID	4		MESSAGE IDENTIFIER
8	VMCPUSER	8		TARGET USERID
10	VMCPVADA	4		VADDR OF MESSAGE BUFFER
14	VMCPLENA	4		LENGTH OF MESSAGE
18	VMCPVADB	4		VADDR OF REPLY BUFFER (SEND/RECV ONLY)

1C	VMCPLENB	4	LENGTH OF REPLY BUFFER (SEND/RECV ONLY)
20	VMCPUSE	8	USER SUPPLIED DOUBLEWORD

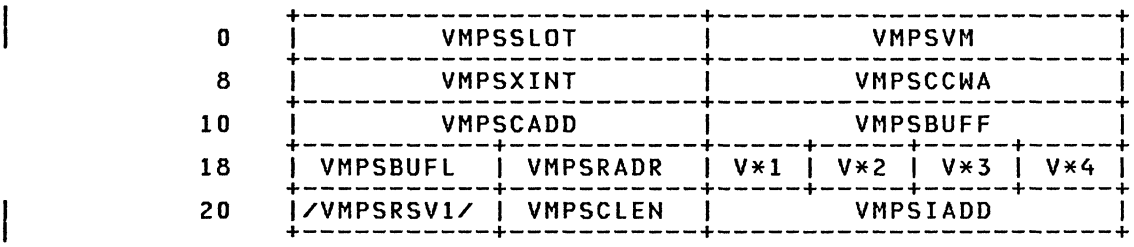
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VMCPAUTH	0002	00	VMCPLENA	0014	..	VMCPREPL	0002	07	VMCPSMSG	0000	20
VMCPAUTS	0000	80	VMCPLENB	001C	..	VMCPRESM	0002	09	VMCPUAUT	0002	01
VMCPCANC	0002	06	VMCPMID	0004	..	VMCPRJCT	0002	0B	VMCPUSE	0020	..
VMCPFLG1	0000	..	VMCPPRTY	0000	40	VMCPSEND	0002	02	VMCPUSER	0008	..
VMCPFUNC	0002	..	VMCPQUIE	0002	08	VMCPSENR	0002	03	VMCPVADA	0010	..
VMCPIDEN	0002	0A	VMCPRECV	0002	05	VMCPSENX	0002	04	VMCPVADB	0018	..
VMCPLEN	0000	28									

VMPSCOM: CP DIAGNOSE CONSOLE INTERFACE BLOCK

VMPSCOM contains information about the logical device created by diagnose X'7C'. VMPSCOM is chained to the owning virtual machine by the VMVMPS field of its VMBLOK. VMPSCOM is found in VMPSCOM copy.



SIZE

VMPSCOM SIZE IN DOUBLEWORDS (VMPSSIZE) 5

Disp	Name	Len	Key	Description
0	VMPSSLOT	4		ADDRESS OF LDSF ADDRESS TABLE SLOT
4	VMPSVM	4		ADDRESS OF VMBLOK DRIVING LOGICAL 3277
8	VMPSXINT	4		ADDRESS OF XINTBLOK ON EXTERNAL INTERRUPT
C	VMPSCCWA	4		ADDRESS OF NEXT CCW TO BE PROCESSED
10	VMPSCADD	4		RESUME DATA ADDRESS ON A TRUNCATED ACCEPT
14	VMPSBUFF	4		ADDRESS OF REAL STORAGE BUFFER FOR ACCEPT
18	VMPSBUFL	2		LENGTH OF BUFFER ADDRESS BY VMPSBUFF
1A	VMPSRADR	2		LOGICAL RESOURCE ID OF LOGICAL 3277
1C	VMPSSNS	1	V*1	SENSE DATA
1D	VMPSSTA2	1	V*2	STATUS FLAGS

Values defined in VMPSSTA2

80	VMPSCONT	MORE DATA TO TRANSFER ON AN ACCEPT
20	VMPSCE	CHANNEL END HAS BEEN STACKED
10	VMPSPRG	NOTIFY HOST OF INPUT DATA PURGED
08	VMPSTERR	VIRTUAL STORAGE ACCESS ERROR

1E	VMPSTSTA	1	V*3	LOGICAL 3277 STATUS

Values defined in VMPSTSTA

80	VMPSTERM	LOGICAL 3277 TERMINATED BY HOST
40	VMPSTMCP	LOGICAL 3277 TERMINATED BY CP
10	VMPSEFLG	VIRTUAL DEVICE SUPPORTS EXTENDED FEATURES
08	VMPSSFLG	STATUS FUNCTION AFTER ACCEPT FUNCTION
04	VMPSHOST	HANDLING HOST TERMINATE COMMAND

```
  1F   VMPSSTAT   1 V*4  STATUS FLAGS

    Values defined in VMPSSTAT

    80 VMPSATTN          ATTENTION INTERRUPT HAS BEEN POSTED
    40 VMPSREAD          A READ MODIFIED IS PENDING FROM CP
    20 VMPSWRIT          A WRITE IS PENDING FROM CP
    10 VMPSRDBF          A READ BUFFER IS PENDING FROM CP
    08 VMPSNTFY          NOTIFY VMPS WHEN READ IS COMPLETED
    04 VMPSACTV          WE ARE IN AN ACCEPT FUNCTION
    02 VMPSWRTS          WAITING FOR STATUS DIAGNOSE

| 20   VMPSRSV1   2      RESERVED FOR IBM USE

  22   VMPSCLEN   2      RESIDUAL LENGTH ON A TRUNCATED ACCEPT

  24   VMPSIADD   4      IDA ADDRESS ON A TRUNCATED ACCEPT MOVE

  28   VMPSRDEV   0      START OF RDEVBLOK FOR 3277
```

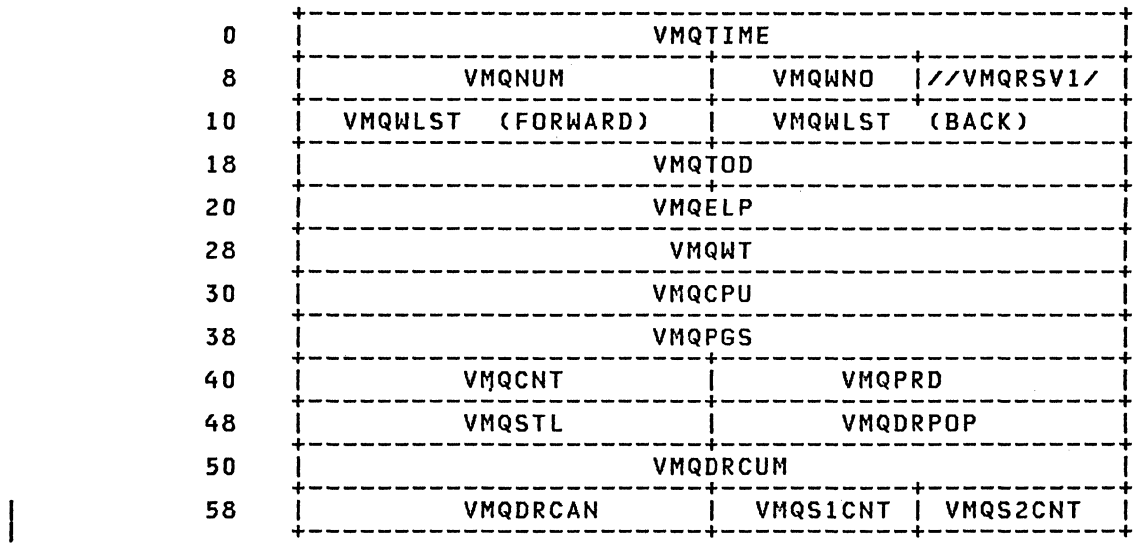
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VMPSACTV 001F  04    VMPSEFLG 001E  10  | VMPSRSV1 0020  ..    VMPSTERR 001D  08
VMPSATTN 001F  80    VMPSHOST 001E  04    VMPSSFLG 001E  08    VMPSTMCP 001E  40
VMPSBUFF 0014  ..  | VMPSIADD 0024  ..    VMPSSIZE ....   5    VMPSTSTA 001E  ..
VMPSBUFL 0018  ..    VMPSNTFY 001F  08    VMPSSLN  ....   5    VMPSVM   0004  ..
VMPSCADD 0010  ..    VMPSPRG  001D  10  | VMPSSLOT 0000  ..    VMPSWRIT 001F  20
VMPSCCWA 000C  ..    VMPSRADR 001A  ..    VMPSSNS  001C  ..    VMPSWRTS 001F  02
VMPSCE   001D  20    VMPSRDBF 001F  10    VMPSSTAT 001F  ..    VMPSXINT 0008  ..
| VMPSCLEN 0022  ..  | VMPSRDEV 0028  ..    VMPSSTA2 001D  ..    VMPXCODE 0000  ..
VMPSCONT 001D  80    VMPSREAD 001F  40    VMPSTERM 001E  80    VMPXMASK 0000  ..
```

VMQBLOK: VIRTUAL MACHINE QUEUE SCHEDULING BLOCK

VMQBLOK provides scheduling information, queue pointers, additional data, and counters to the users in the eligible list queue. The DMKSCHQ1 and DMKSCHQ2 fields in DMKSCH are the beginning addresses of the VMQBLOKs. VMQBLOK is found in VMQBLOK copy.



Disp	Name	Len	Key	Description
0	VMQTIME	8		TIME-IN-QUEUE DOUBLE PRECISION 2'S
8	VMQNUM	4		NUMBER OF USERS IN THIS QUEUE
C	VMQWNO	2		NUMBER OF VMBLOKS IN ELIGIBLE LIST
E	VMQRSV1	2		RESERVED FOR IBM USE
10	VMQWLST	8		LIST ANCHOR FOR ELIGIBLE LIST
18	VMQDATA	0		QUEUE ACTIVITY DATA
18	VMQTOD	8		IN-QUEUE COUNT CHANGE TIME-STAMP
20	VMQELP	8		IN-QUEUE TIME
28	VMQWT	8		ELIGIBLE LIST TIME
30	VMQCPU	8		IN-QUEUE CPU USE
38	VMQPGS	8		ESTIMATED AVERAGE PAGE-SECONDS
40	VMQCNT	4		COUNT OF QUEUE DROPS
44	VMQPRD	4		IN-QUEUE PAGE READS

	48	VMQSTL	4	IN-QUEUE PAGE STEALS
	4C	VMQDRPOP	4	# OF Q-DROP DELAY TIMER POPS
	50	VMQDRCUM	8	QUEUE-DROP DELAY TIME
	58	VMQDRCAN	4	# OF Q-DROP DELAY TIMER CANCELS
|	5C	VMQS1CNT	2	# OF TIMES ARP SANITY CHECK 1 WAS HIT
|	5E	VMQS2CNT	2	# OF TIMES ARP SANITY CHECK 2 WAS HIT

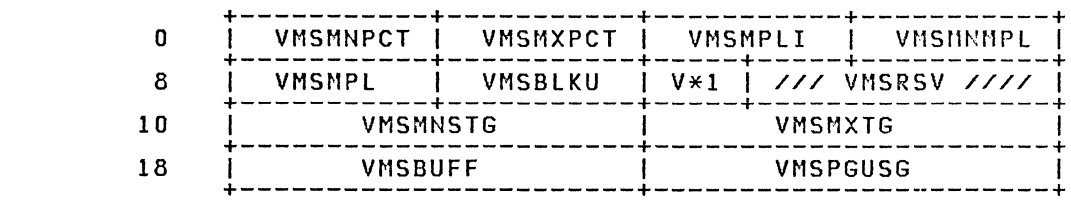
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VMQCNT	0040	..	VMQDRPOP	004C	..	VMQSTL	0048	..	VMQTOD	0018	..
VMQCPU	0030	..	VMQELP	0020	..	| VMQS1CNT	005C	..	VMQWLST	0010	..
VMQDATA	0018	..	VMQNUM	0008	..	| VMQS2CNT	005E	..	VMQWNO	000C	..
VMQDRCAN	0058	..	VMQPGS	0038	..	VMQTIME	0000	..	VMQWT	0028	..
VMQDRCUM	0050	..	VMQPRD	0044	..						

VMSBLOK: VM SCHEDULER BLOCK

The VMSBLOK maps the scheduler control block. The VMSBLOK is found in VMQBLOK copy. DMKSCHIS and DMKSCHNS in DMKSCH are the beginning addresses of the VMSBLOKs.



Disp	Name	Len	Key	Description
0	VMSMNPCT	2		MIN. PERCENT AVAILABLE DPA
2	VMSMXPCT	2		MAX. PERCENT AVAILABLE DPA
4	VMSMPLI	2		MIN. NO. USERS (PER PROCESSOR)
6	VMSMNMPL	2		MIN. NO. USERS (THIS CLASS)
8	VMSMPL	2		NO. USERS THIS CLASS IN RUN LIST
A	VMSBLKU	2		VMWSPROJ OF BLOCKED USER
C	VMSFLG	1	V*1	FLAG BYTE
	Values defined in VMSBLOK			
80	VMSBLKS			USER HELD IN ELIGIBLE LIST BY INSUFFICIENT STORAGE
40	VMSBLKP			USER HELD IN ELIGIBLE LIST BY INSUFFICIENT PROCESSOR TIME
D	VMSRSV	3		RESERVED FOR IBM USE
10	VMSMNSTG	4		MIN. AVAILABLE DPA PAGES
14	VMSMXSTG	4		MAX. AVAILABLE DPA PAGES
18	VMSBUFF	4		CURRENT STORAGE BUFFER SIZE
1C	VMSPGUSG	4		SUM VMWSPROJ OF USERS THIS CLASS

CROSS REFERENCE
(Name Disp Value)

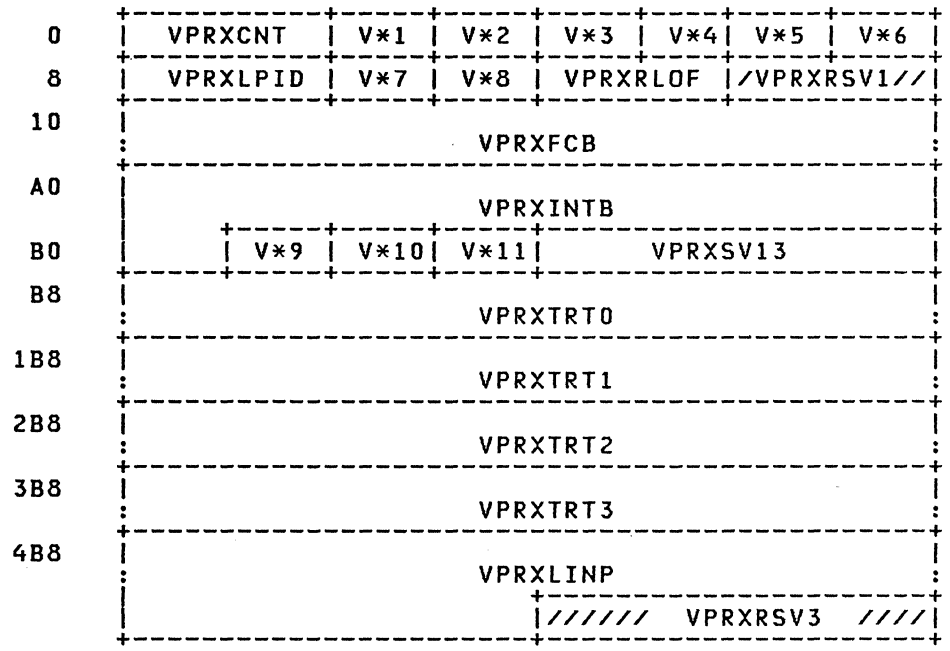
This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VMSBLKP  ....  40   VMSBLKU  000A  ..   VMSFLG   000C  ..   VMSMNPCT 0000  ..
VMSBLKS  ....  80   VMSBUFF  0018  ..   VMSMNMPL 0006  ..   VMSMNSTG 0010  ..
```

```
VMSMPL   0008  ..   VMSMXPCT 0002  ..   VMSPGUSG 001C  ..   VMSRSV   000D  ..
VMSMPLI  0004  ..   VMSMXSTG 0014  ..
```

VPRXBLOK: VIRTUAL PRINTER (3800) EXTENSION BLOCK

VPRXBLOK serves as an extension to the virtual device block (VDEVBLOK) for the 3800 printer. The VDEVPRBK field of the VDEVBLOK points to VPRXBLOK. VPRXBLOK contains device information peculiar to the 3800 printer. VPRXBLOK is found in VBLOKS copy.



SIZE

TOTAL SIZE OF VPRXBLOK IN DOUBLEWORDS (VPRXSIZ3) B1
LARGER SIZE VPRXBLOK IN DOUBLEWORDS (VPRXSIZ2) 17
BASIC SIZE OF BLOCK IN DOUBLEWORDS (VPRXSIZ1) 02

Disp	Name	Len	Key	Description
0	VPRXCNT	2		CURRENT LINE NUMBER
2	VPRXWID	1	V*1	CODE FOR FORMS WIDTH
3	VPRXLEN	1	V*2	PAPER LENGTH (IN 1/2-INCHES)
4	VPRXWCG0	1	V*3	CONTENTS OF WCGM 0
5	VPRXWCG1	1	V*4	CONTENTS OF WCGM 1
6	VPRXWCG2	1	V*5	CONTENTS OF WCGM 2
7	VPRXWCG3	1	V*6	CONTENTS OF WCGM 3

8	VPRXLPID	2		CHANNEL PAGE ID
A	VPRXFLG1	1	V*7	FLAG BYTE

Values defined in VPRXFLG1

80	VPRXVLT0	TRANSLATE TABLE 0 VALID
40	VPRXVLT1	TRANSLATE TABLE 1 VALID
20	VPRXVLT2	TRANSLATE TABLE 2 VALID
10	VPRXVLT3	TRANSLATE TABLE 3 VALID
08	VPRXROUT	SET TO 0=CFS, SET TO 1=BTS
04	VPRX4WCG	4WCGM FEATURE INSTALLED
02	VPRXBLKL	BLOCK DATA CHECK LATCH
01	VPRXFULL	REFLECT ALL DATA CHECKS

B	VPRXCUTR	1	V*8	CURRENT TRANSLATE TABLE
C	VPRXRLOF	2		RELATIVE DISPLACEMENT FOR LOAD CHECKS
E	VPRXRSV1	2		RESERVED FOR IBM USE
10	VPRXFCB	144		CURRENT FCB LOADED
A0	VPRXINTB	017		INTERMEDIATE BUFFER
B1	VPRXFLG2	001	V*9	FLAG BYTE 2

Values defined in VPRXFLG2

80	VPRXCLPR	'CLR PRT' SUPPRESSED ON LOAD CCW
40	VPRXBIGB	WE HAVE A BIG WORK BUFFER
20	VPRXOVER	CHECK NEXT LINE FOR OVERPRINT
10	VPRXNORM	CURRENT CCW NOT LOAD CCW
08	VPRXINST	A 'CL PR' CCW IS BEING INSERTED

B2	VPRXSVOP	1	V*10	PLACE TO SAVE VSPCCW OP CODE
B3	VPRXSNBY	1	V*11	CURRENT SENSE BYTE BEING PROCESSED
B4	VPRXSV13	4		SAVE R13 WHEN INSERTING 'CL PR'
B8	VPRXTRT0	256		BYTE MAP FOR UNPRINTABLE
1B8	VPRXTRT1	256		... CHARACTERS FOR EACH
2B8	VPRXTRT2	256		... OF THE POSSIBLE
3B8	VPRXTRT3	256		... TRANSLATE TABLES
4B8	VPRXLINP	204		MAP FOR OVERPRINT DETECTION
584	VPRXRSV3	4		RESERVED FOR IBM USE

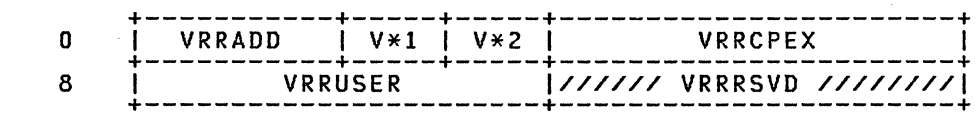
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VPRXBIGB	00B1	40	VPRXINTB	00A0	..	VPRXSIZ1	0000	02	VPRXVLT0	000A	80
VPRXBLKL	000A	02	VPRXLEN	0003	..	VPRXSIZ2	0000	17	VPRXVLT1	000A	40
VPRXCLPR	00B1	80	VPRXLINP	04B8	..	VPRXSIZ3	0000	B1	VPRXVLT2	000A	20
VPRXCNT	0000	..	VPRXLPID	0008	..	VPRXSNBY	00B3	..	VPRXVLT3	000A	10
VPRXCUTR	000B	..	VPRXNORM	00B1	10	VPRXSVOP	00B2	..	VPRXWCG0	0004	..
VPRXFCB	0010	..	VPRXOVER	00B1	20	VPRXSV13	00B4	..	VPRXWCG1	0005	..
VPRXFLG1	000A	..	VPRXRLOF	000C	..	VPRXTRT0	00B8	..	VPRXWCG2	0006	..
VPRXFLG2	00B1	..	VPRXROUT	000A	08	VPRXTRT1	01B8	..	VPRXWCG3	0007	..
VPRXFULL	000A	01	VPRXRSV1	000E	..	VPRXTRT2	02B8	..	VPRXWID	0002	..
VPRXINST	00B1	08	VPRXRSV3	0584	..	VPRXTRT3	03B8	..	VPRX4WCG	000A	04

VRRBLOK: VIRTUAL RESERVE/RELEASE BLOCK

VRRBLOK is linked to the VDEVBLOK and contains information about minidisk usage. The VDEVRRB field of the VDEVBLOK points to VRRBLOK. VRRBLOK is found in VBLOKS copy.



SIZE

VRRBLOK SIZE IN DOUBLEWORDS (VRRSIZE) 2

Disp	Name	Len	Key	Description
0	VRRADD	2		VIRTUAL DEVICE ADDRESS THAT IS RESERVED
2	VRRSTAT	1	V*1	VIRTUAL RESERVE/RELEASE STATUS FLAGS
	Values defined in VRRSTAT			
80	VRRRES			MDISK IS RESERVED
3	VRRRSV1	1	V*2	RESERVED FOR IBM USE
4	VRRCPEX	4		QUEUED REQUESTS FOR THE MINIDISK
8	VRRUSER	4		VMBLOK OF THE USER WHO HAS MDISK RESERVED
C	VRRRSVD	4		RESERVED FOR IBM USE

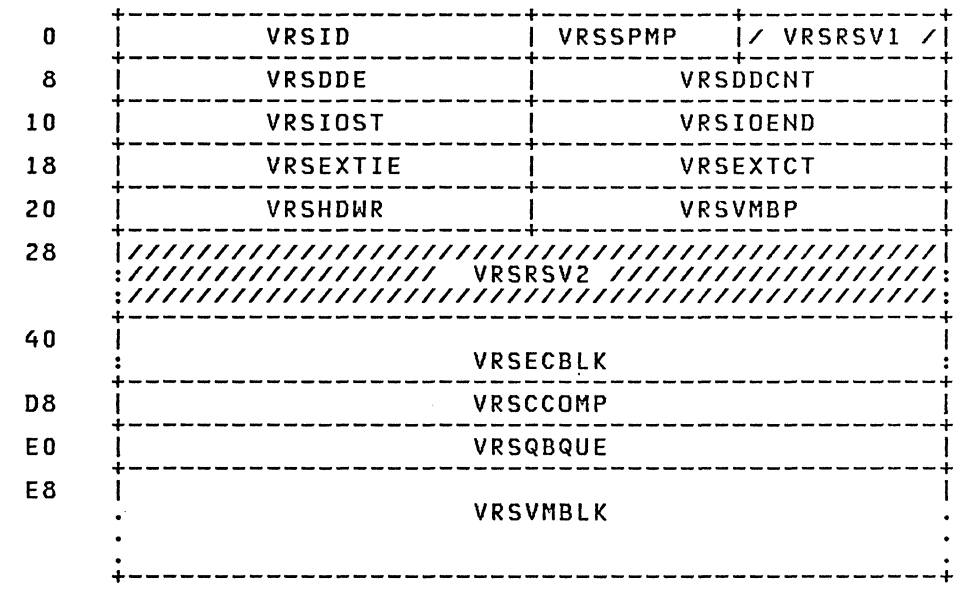
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

VRRADD	0000	..	VRRRES	0002	80	VRRRSV1	0003	..	VRRSTAT	0002	..
VRRCPEX	0004	..	VRRRSVD	000C	..	VRRSIZE	0000	02	VRRUSER	0008	..

VRS: VIRTUAL=REAL RECOVERY BLOCK

VRS contains header information for data saved after recovery of the V=R virtual machine. VRS is the primary V=R recovery control block. It contains pointers to all the V=R recovery control blocks used by V=R virtual machine. VRS is found in VRS copy.



SIZE

VRS BLOCK SIZE IN DOUBLEWORDS (VRSSIZE) 1D

Disp	Name	Len	Key	Description
0	VRSID	4		'VRSS' IN EBCDIC
4	VRSSPMP	2		IN SPMODE, INITIAL PROCESSOR ADDRESS
6	VRSRSV1	2		RESERVED FOR IBM USE
8	VRSDDE	4		STARTING ADDRESS OF DEDICATED DEVICE INFORMATION
C	VRSDDCNT	4		NUMBER OF DEDICATED DEVICES
10	VRSIOST	4		STARTING ADDRESS OF I/O INTERRUPT INFORMATION
14	VRSIOEND	4		END OF I/O INTERRUPT INFORMATION
18	VRSEXTIE	4		STARTING ADDRESS OF EXTERNAL INTERRUPT INFO
1C	VRSEXTCT	4		NUMBER OF SAVED EXTERNAL INTERRUPTS

20	VRSHDWR	4	POINTER TO SAVED CRS, CLOCK INFO
24	VRSVMBP	4	ADDRESS OF SAVED VMBLOK
28	VRSRSV2	24	RESERVED FOR IBM USE
40	VRSECBLK	152	SAVED ECBLOK
D8	VRSCCOMP	8	VIRTUAL CLOCK COMPARATOR
E0	VRSQBQUE	8	VIRTUAL PROCESSOR TIMER TRQBQUE
E8	VRSVMBLK	0	START OF SAVED VMBLOK

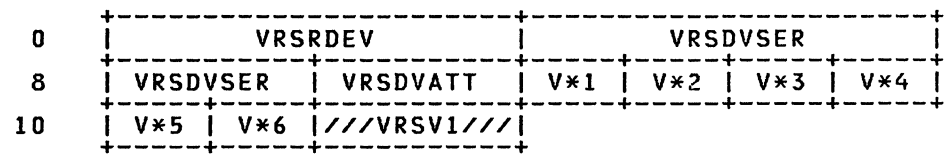
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

VRSCCOMP	00D8 ..	VRSEXTIE	0018 ..	VRSIOST	0010 ..	VRSSIZE	0000 1D
VRSDDCNT	000C ..	VRSHDWR	0020 ..	VRSQBQUE	00E0 ..	VRSSPMP	0004 ..
VRSDDE	0008 ..	VRSID	0000 ..	VRSRSV1	0006 ..	VRSVMBLK	00E8 ..
VRSECBLK	0040 ..	VRSIOEND	0014 ..	VRSRSV2	0028 ..	VRSVMBP	0024 ..
VRSEXTCT	001C ..						

VRSDDEV: VIRTUAL=REAL RECOVERY DEDICATED DEVICE BLOCK

VRSDDEV contains information about the dedicated devices saved for the V=R virtual machine. VRSDDEV is found in VRS copy.



SIZE

VRSDDEV BLOCK SIZE IN BYTES (VRSDDSZ) 1D

Disp	Name	Len	Key	Description
0	VRSRDEV	4		RDEVBLOK ADDRESS
0	VRSDEDCU	4		CONTROL UNIT ADDRESS
4	VRSDVSER	6		REAL DEVICE SERIAL NUMBER
A	VRSDVATT	2		REAL DEVICE ATTACHED VIRTUAL ADDRESS
C	VRSDVFTR	1	V*1	REAL DEVICE FEATURE CODE
D	VRSDSTA2	1	V*2	REAL DEVICE STATUS
E	VRSDPTHS	1	V*3	REAL DEVICE PATH STATUS FLAGS
F	VRSDFLAG	1	V*4	REAL DEVICE FLAG
10	VRSDSTA6	1	V*5	REAL DEVICE STATUS
11	VRSDFLG1	1	V*6	SPECIAL DEVICE FLAG
12	VRSDRSV1	2		RESERVED FOR IBM USE

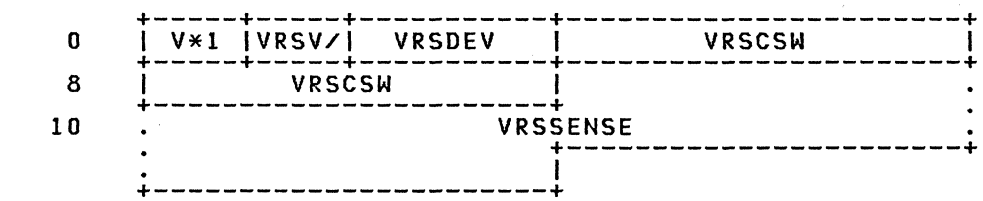
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VRSDDSZ  0000 0F    VRSDFLG1 0011 ..    VRSDSTA2 000D ..    VRSDVFTR 000C ..
VRSDEDCU 0000 ..    VRSDPTHS 000E ..    VRSDSTA6 0010 ..    VRSDVSER 0004 ..
VRSDFLAG 000F ..    VRSDRSV1 0012 ..    VRSDVATT 000A ..    VRSRDEV  0000 ..
```

VRSIOI: VIRTUAL=REAL RECOVERY I/O INTERRUPTION BLOCK

VRSIOI contains information about the I/O interruptions saved for the V=R virtual machine. VRSIOI is found in VRS copy.



SIZE

SIZE OF VRSIOI IN BYTES (WITHOUT SENSE DATA AREA) (IOISIZE) C

Disp	Name	Len	Key	Description
0	VRSFLAG	1	V*1	FLAG BYTE
1	VRSV	1		RESERVED FOR IBM USE
2	VRSDEV	2		DEVICE REAL ADDRESS
4	VRSCSW	8		CSW
C	VRSSENSE	0		SENSE DATA

Values defined in VRSSENSE

80	VRSSNSAV	SENSE DATA IS PRESENT
40	VRSPMINT	IOB FOR INTERRUPT ON DEVICE

CROSS REFERENCE

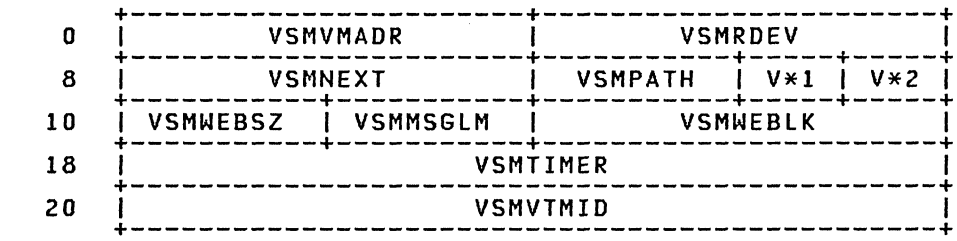
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

IOISIZE	0000	0C	VRSDEV	0002	..	VRSPMINT	000C	40	VRSSNSAV	000C	80
VRSCSW	0004	..	VRSFLAG	0000	..	VRSSENSE	000C	..	VRSV	0001	..

VSMBLOK: VTAM SERVICE MACHINE BLOCK

VSMBLOK is created by SNA Console Communications Services as the central communication header for all work on behalf of a VTAM Service Machine (VSM). It serves as the anchor for the RDEVBLOKs and SNARBLOKs for that VSM. Each VTAM Service Machine in the system has its own VSMBLOK to identify its environment and status. The VSMBLOK is pointed to by VSMPTR in the PSA. VSMBLOK is found in VSMBLOK copy.



SIZE

VSMBLOK SIZE IN DOUBLEWORDS (VSMSIZE) 5

Disp	Name	Len	Key	Description
0	VSMVMADR	4		VSM VMBLOK ADDRESS
4	VSMRDEV	4		ADDRESS OF RDEVBLOK CHAIN
8	VSMNEXT	4		ADDRESS OF THE NEXT VSMBLOK
C	VSMPATH	2		IUCV PATH NUMBER FOR THE VSM
E	VSMFLAG1	1	V*1	STATUS
	Values defined in VSMFLAG1			
	04 VSMSEVER			GLOBAL VSM PATH HAS BEEN SEVERED
	02 VSMENABL			VSM DEVICES ENABLED
	01 VSMCONN			CONNECT PENDING
F	VSMLEVEL	1	V*2	LEVEL OF SUPPORT IN VSM
	Values defined in VSMLEVEL			
	02 VSMVSCS2			VSM IS VSCS RELEASE 2
	01 VSMVSCS			VSM IS A VSCS
	00 VSMVCNA			VSM IS A VCNA
10	VSMWEBSZ	2		SIZE OF WEBLOK IN DBLWDS
10	VSMUSRID	8		VSM USERID
12	VSMMSGLM	2		MESSAGE LIMIT
14	VSMWEBLK	4		ADDRESS OF WEBLOK FOR LOGO
18	VSMTIMER	8		VALUE FOR REDISPLAY TIMER

```
  20   VSMVTMID   8       VTAM MACHINE USERID
```

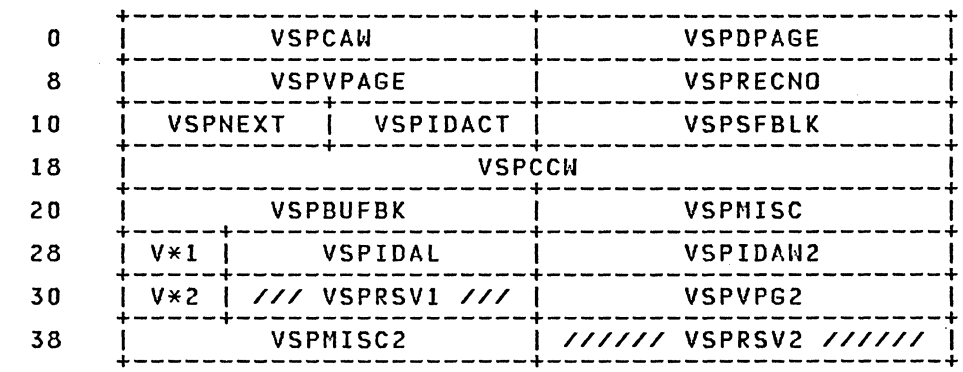
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VSMCNCT  ....  F0   VSMMSGLM 0012  ..   VSMSIZE  ....   5   VSMVSCS  000F  01
VSMCONN  000E  01   VSMNEXT  0008  ..   VSMTIMER 0018  ..  | VSMVSCS2 000F  02
VSMENABL 000E  02   VSMPATH  000C  ..   VSMUSRID 0010  ..   VSMVTMID 0020  ..
VSMFLAG1 000E  ..   VSMRDEV  0004  ..   VSMVCNA  000F  00   VSMWEBLK 0014  ..
VSMLEVEL 000F  ..   VSMSEVER 000E  04   VSMVMADR 0000  ..   VSMWEBSZ 0010  ..
```

VSPLCTL: VIRTUAL SPOOLING CONTROL BLOCK

VSPLCTL is linked to the VDEVBLOK and contains information for opened spool files. The VDEVSPL field of the VDEVBLOK points to VSPLCTL. VSPLCTL is found in SPOOL copy.



SIZE

VSPLCTL SIZE IN DOUBLEWORDS (VSPSIZE) 8

Disp	Name	Len	Key	Description
0	VSPCAW	4		VIRTUAL ADDRESS OF USER CCW
4	VSPDPAGE	4		DASD LOCATION (DCHR) OF CURRENT PAGE
8	VSPVPAGE	4		VIRTUAL ADDRESS OF PAGE BUFFER
C	VSPRECNO	4		RECORDS REMAINING IN CURRENT BUFFER
10	VSPNEXT	2		DISPLACEMENT IN BUFFER OF NEXT RECORD
12	VSPIDACT	2		DATA BYTE COUNT OF IDA CCW
14	VSPSFBLK	4		ADDRESS OF SFBLOK FOR FILE
18	VSPCCW	8		CURRENT USER CCW
20	VSPBUFBK	4		ADDRESS OF A BUFFER AREA
24	VSPMISC	4		USE VARIES ACCORDING TO CALLER
28	VSPIDASW	1	V*1	INDIRECT DATA ADDRESS WORK FLAG
29	VSPIDAL	3		ADDRESS OF INDIRECT DATA LIST
2C	VSPIDAW2	4		CONTAINS IDAW2
30	VSPFLAG1	1	V*2	VSPLCTL FLAG BYTE

Values defined in VSPFLAG1

```
     08 VSPERR              ERROR ENCOUNTERED ON PAGE WRITE
     04 VSPDCFOP            PROCESSING DATA-CHAINING CCW
     02 VSPBIGBF            BIG BUFFER OBTAINED
     01 VSP5ACCW            CURRENT CCW IS PRINTER X'5A'

  31    VSPRSV1     3       RESERVED FOR IBM USE

  34    VSPVPG2     4       SECOND VIRTUAL BUFFER ADDRESS

  38    VSPMISC2    4       USE VARIES ACCORDING TO CALLER

  3C    VSPRSV2     4       RESERVED FOR IBM USE
```

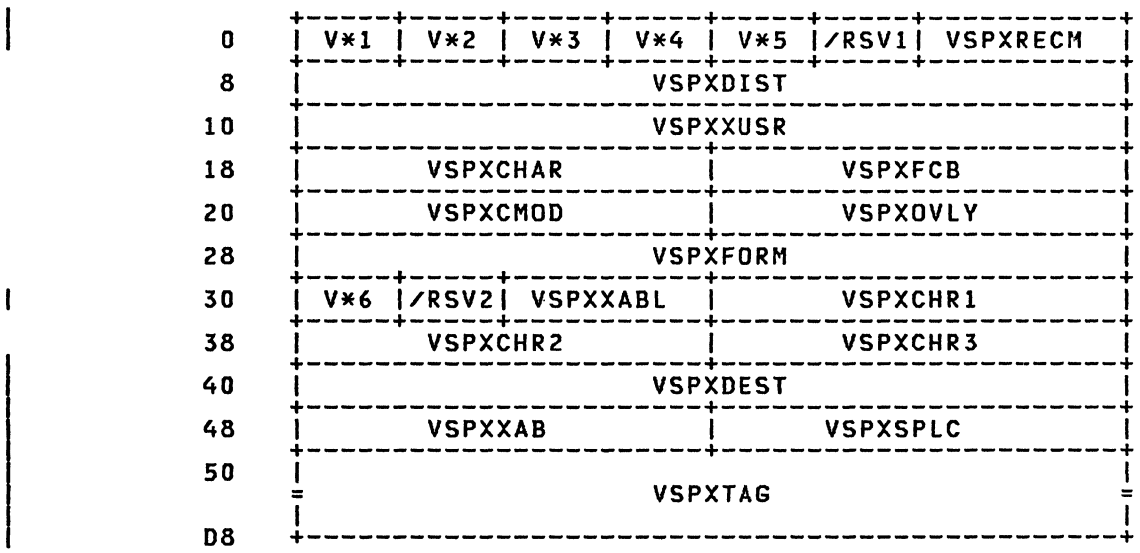
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
VSPBIGBF 0030  02   VSPDPAGE 0004  ..   VSPIDAW2 002C  ..   VSPRSV2  003C  ..
VSPBUFBK 0020  ..   VSPERR   0030  08   VSPMISC  0024  ..   VSPSFBLK 0014  ..
VSPBUFSZ ....  23   VSPFLAG1 0030  ..   VSPMISC2 0038  ..   VSPSIZE  ....   8
VSPCAW   0000  ..   VSPIDACT 0012  ..   VSPNEXT  0010  ..   VSPVPAGE 0008  ..
VSPCCW   0018  ..   VSPIDAL  0029  ..   VSPRECNO 000C  ..   VSPVPG2  0034  ..
VSPDCFOP 0030  04   VSPIDASW 0028  ..   VSPRSV1  0031  ..   VSP5ACCW 0030  01
```

VSPXBLOK: VIRTUAL SPOOL EXTENSION BLOCK

VSPXBLOK serves as an extension to the virtual spool control block (VSPLCTL). It contains the user named destination of the file as well as RSCS tag information used by the Remote Spooling Communications Subsystem. The VDEVEXTN field in VDEVBLOK points to VSPXBLOK. VSPXBLOK is found in VBLOKS copy.



SIZE

VSPXBLOK SIZE IN DOUBLEWORDS (VSPXSIZ2) 1B
VSPXBLOK HEADER SIZE IN DOUBLEWORDS (VSPXSIZ1) A

Disp	Name	Len	Key	Description
0	VSPXLEN	1	V*1	VSPXBLOK SIZE IN DOUBLEWORDS
1	VSPXTGLN	1	V*2	VSPXTAG DATA LENGTH IN BYTES
2	VSPXFLSH	1	V*3	3800 FLASH COUNT
3	VSPXFLG1	1	V*4	3800 FLAGS
	Values defined in VSPXFLG1			
	80 VSPXCPYF			MULTIPLE COPIES IN ONE TRANSMISSION
	40 VSPXUDST			INDICATES USER SPOOL DISTRIBUTION
4	VSPXPLEN	1	V*5	PAPER LENGTH (1/2 - INCHES)
5	RSV1	1		RESERVED FOR IBM USE
6	VSPXRECM	2		MAXIMUM DATA LENGTH IN FILE
8	VSPXDIST	8		VIRTUAL DEVICE DISTRIBUTION CODE

10	VSPXXUSR	8		TRANSFERRED TO VMUSER
18	VSPXCHAR	4		3800 CHAR ARRANGEMENT TABLE 0
1C	VSPXFCB	4		3800 FCB
20	VSPXCMOD	4		3800 COPY MODIFICATION
24	VSPXOVLY	4		NAME OF FLASH OVERLAY TO BE USED
28	VSPXFORM	8		FORM NUMBER FOR THIS DEVICE
30	VSPXMCHR	1	V*6	COPY MODIFICATION TRANSLATE NUMBER
31	RSV2			RESERVED FOR IBM USE
32	VSPXXABL	2		LENGTH OF EXTERNAL ATTRIBUTE BUFFER
34	VSPXCHR1	4		3800 CHAR ARRANGEMENT TABLE 1
38	VSPXCHR2	4		3800 CHAR ARRANGEMENT TABLE 2
3C	VSPXCHR3	4		3800 CHAR ARRANGEMENT TABLE 3
40	VSPXDEST	8		DESTINATION
48	VSPXXAB	4		DASD ADDRESS OF EXTERNAL ATTRIBUTE BUFFER
4C	VSPXSPLC	4		NUMBER OF SPLINKS IN FILE
50	VSPXTAG	136		TAG APPLICATION DATA AREA

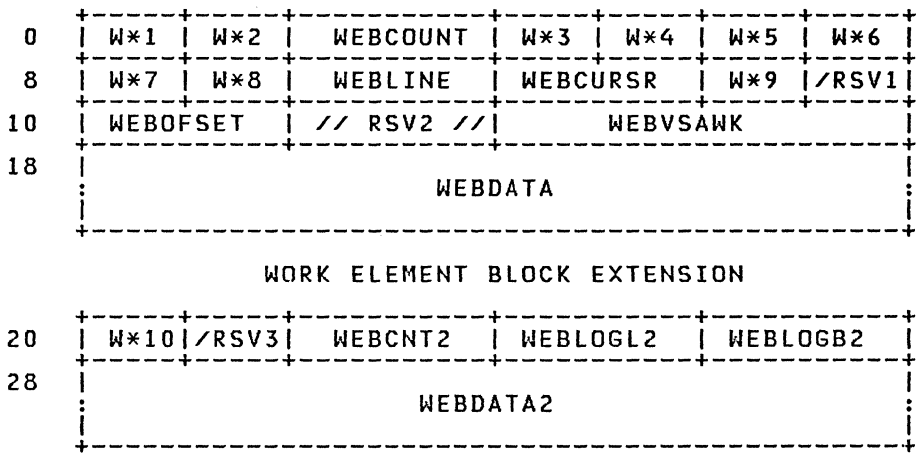
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

RSV1	0005	..	VSPXCPYF	0003	80	VSPXLEN	0000	..	VSPXSPLC	004C	..
RSV2	0031	..	VSPXDEST	0040	..	VSPXMCHR	0030	..	VSPXTAG	0050	..
VSPXCHAR	0018	..	VSPXDIST	0008	..	VSPXOVLY	0024	..	VSPXTGLN	0001	..
VSPXCHR1	0034	..	VSPXFCB	001C	..	VSPXPLEN	0004	..	VSPXUDST	0003	40
VSPXCHR2	0038	..	VSPXFLG1	0003	..	VSPXRECM	0006	..	VSPXXAB	0048	..
VSPXCHR3	003C	..	VSPXFLSH	0002	..	VSPXSIZ1	....	A	VSPXXABL	0032	..
VSPXCMOD	0020	..	VSPXFORM	0028	..	VSPXSIZ2	....	1B	VSPXXUSR	0010	..

WEBLOK: WORK ELEMENT BLOCK

WEBLOK is created by the SNA Console Communications Services (SNA CCS) in CP and by the VTAM Communications Network Application (VCNA) in the VTAM Service Machine. (It is known as DTIWEB in the VCNA.) CCS and VCNA pass WEBLOK between themselves and use it as the interface protocol for all requests for work from the other component. Input or output lines are passed in the data area while the control portion contains the transaction orders and environment data. WEBLOK is pointed to by the WEIWEBPT field of the corresponding WEIBLOK. WEBLOK is found in WEBLOK copy.



SIZE

```
WEBLOK SIZE IN BYTES (WEBBSIZE)  18
SIZE ON INBOUND RECORD IN BYTES (WEBINLL )   9
WEBLOK EXTENSION SIZE IN BYTES (WEBBSIZ2)   8
WEBLOK SIZE IN DOUBLEWORDS (WEBSIZE )   3
WEBLOK EXTENSION SIZE IN DOUBLEWORDS (WEBSIZE2)   1
```

Disp	Name	Len	Key	Description
0	WEBFMT	1	W*1	CONTROL AREA FORMAT
	Values defined in WEBFMT			
	00 WEBFMT1			MSG FORMAT-SINGLE CONTROL AREA
1	WEBCAN	1	W*2	NUMBER OF CONTROL AREAS
	Values defined in WEBCAN			
	01 WEBCAN1			NUMBER OF CONTROL AREAS IS ONE
2	WEBCOUNT	2		DATA COUNT - LENGTH OF WEBDATA
4	WEBFUN	1	W*3	FUNCTION CODE
	Values defined in WEBFUN			

```
   Outbound Console Mode

10 WEBCPLSA           DEVICE INFORMATION (TERMINAL COMMAND)
0F WEBCPCAH           COLOR & HILITE MAP
0E WEBCPPTH           IUCV PATH ID
0D WEBCPTMR           COMMAND END
0C WEBCPLOG           LOGO IN WEBDATA
0B WEBCPLER           LOGICAL ERROR
0A WEBCPTAB           PF KEY TAB OPERATION
09 WEBCPREX           REPLY EXPECTED VIA SYNCHRONOUS PATH
08 WEBCPINA           INPUT NOT ACCEPTED
07 WEBCPIDA           DATA ACCEPTED, PROCESS INPUT
06 WEBCPFKR           PFK REPLY, TREAT AS TERMINAL INPUT
05 WEBCPIED           INVALID ENVIRONMENT DEFINITION
04 WEBCPCPY           COPY REQUEST
03 WEBCPWIC           WRITE TO INPUT AREA
02 WEBCPBRK           BREAK CONNECTION (CP LOGOFF OR DISC)
01 WEBCPRED           READ REQUEST
00 WEBCPWRT           WRITE TO NEXT LINE IN OUTPUT AREA

   Outbound CMS Mode

02 WEBCMCLR           ERASE ENTIRE SCREEN AND REFRESH
01 WEBCMEWT           ERASE OUTPUT AREA/WRITE TO WEBLINE
00 WE3CMWRT           WRITE TO LINE NUMBER SPECIFIED IN WEBLINE

   Outbound Full-Screen Support Mode

08 WEBFSRMP           FS READ MODIFIED FOR POSITION
07 WEBFSRBP           FS READ BUFFER FOR POSITION
06 WEBFSEAU           FSSM ERASE ALL UNPROTECTED
05 WEBFSWSF           FULL SCREEN WRITE STRUCTURED FIELD
04 WEBFSRDB           FSSM READ BUFFER
03 WEBFSRDM           FSSM READ MODIFIED
02 WEBFSEWA           FSSM ERASE/WRITE ALTERNATE
01 WEBFSEWT           FSSM ERASE/WRITE
00 WEBFSWRT           FSSM WRITE

   Inbound -- All Modes

0E WEBINVTM           VTAM MACHINE USERID INPUT
0D WEBRDERR           LINE TERMINAL READ ERROR
0C WEBINVER           VCNA LOGIC ERROR
0B WEBINLER           LOGICAL ERROR IN SNA CCS WEBLOK
0A WEBINOPC           OPERATION CHECK FOR FSSM REQUEST
09 WEBINACT           ACCOUNTING DATA FOR VCNA USER
08 WEBINAOK           NORMAL RESPONSE
07 WEBINFNU           FSSM REQUEST REJECTED
06 WEBINLGF           VTAM GENERATED LOGOFF CONDITION
05 WEBINCB1           CURSOR BACK ONE (CURSOR ATTENTION)
04 WEBINPUT           AID AND OPTIONAL DATA INPUT
03 WEBINERR           UNRECOVERABLE I/O ERROR, LOGOFF CONDITION
02 WEBINATT           ATTENTION INTERRUPT WITHOUT DATA
01 WEBINLOG           LOGON REQUEST

5  WEBENVR    5       ENVIRONMENT DEFINITION

5  WEBMODE    1 W*4   MODE - CONSOLE, CMS, OR FSS

 Values defined in WEBMODE

 00 WEBCONS           CONSOLE MODE - VIRT SIO OR CALL
 04 WEBVSAN           VCNA INTERNAL MODE
 02 WEBFSSM           FULL SCREEN SUPPORT MODE- DIAGNOSE X'58'
 01 WEBCMSE           CMS MODE
```

```
6   WEBCHAR     1 W*5  CHARACTER SET

 Values defined in WEBCHAR

 00 WEBCHFO             EBCDIC CHARACTER SET
 02 WEBCHTN             TEXT CHARACTER SET
 01 WEBCHAPL            APL CHARACTER SET

7   WEBEDIT     1 W*6  EDITING CHARACTERISTICS

 Values defined in WEBEDIT

 08 WEBHIEKO            HIGHLIGHT INPUT REDISPLAY
 04 WEBEDPTI            INHIBIT PRINTING (OR NON-DISPLAY)
 02 WEBNOEKO            NO REDISPLAY OF INPUT ON NEXT OUTPUT LINE
 01 WEBEDCUP            CONVERT TO UPPER CASE

8   WEBFLAGS    1 W*7  CCS FLAGS FOR VCNA

 Values defined in WEBFLAGS

 40 WEBCONMD            OPERATION TO TERMINAL WITH CONMODE 3270
 20 WEBLED              LIMITED EDIT WRITE
 10 WEBANFSW            ALLOW ANY FS WRITE - RESET DONE
 08 WEBDIAL             OPERATION TO A DIALED DEVICE
 04 WEBNONOR            CLEAR SCREEN BUT NO MORE STATUS
 02 WEBPRMPT            TELL VSCS INITIAL LOGON PROMPT
 01 WEBPASPA            PASS PA1KEY TO APPLICATION

9   WEBCPFLG    1 W*8  CCS STATUS FLAGS FOR VCNA (OUTBOUND)

 Values defined in WEBCPFLG

 80 WEBCPNCR            NO CARRIAGE RETURN (K/P ONLY)
 40 WEBCPPRI            PRIORITY MSG
 20 WEBCPALM            ALARM
 10 WEBCPMDE            CP
 08 WEBCPHLW            HIGHLIGHT THE WRITE
 04 WEBCPRSP            CCS RESPONSE
 02 WEBCPRRR            CCS REQUEST, RESPONSE REQUIRED
 01 WEBCPRNR            CCS REQUEST, NO RESPONSE REQUIRED

9   WEBSAFLG    1 W*8  VCNA STATUS FLAGS FOR CCS

 Values defined in WEBSAFLG

 20 WEBSAHLD            HOLDING
 10 WEBSAMOR            MORE
 04 WEBSARSP            INDICATES CCS RESPONSE
 02 WEBSARRR            VCNA REQUEST, RESPONSE REQUIRED
 01 WEBSARNR            VCNA REQUEST, NO RESPONSE REQUIRED

A   WEBLINE     2      LINE NUMBER FOR CMS WEBCMWRT (0 ORIGIN)

A   WEBLAID     1      LOGICAL ATTENTION IDENTIFIER

 Values defined in WEBLAID

 00 WEBLANTR            ENTER
 7C WEBLA024            PF24
 7B WEBLA023            PF23
 7A WEBLA022            PF22
 79 WEBLA021            PF21
 78 WEBLA020            PF20
 77 WEBLA019            PF19
```

```
     76 WEBLA018           PF18
     75 WEBLA017           PF17
     74 WEBLA016           PF16
     73 WEBLA015           PF15
     72 WEBLA014           PF14
     71 WEBLA013           PF13
     70 WEBLA012           PF12
     6F WEBLA011           PF11
     6E WEBLA010           PF10
     6D WEBLA009           PF9
     6C WEBLA008           PF8
     6B WEBLA007           PF7
     6A WEBLA006           PF6
     69 WEBLA005           PF5
     68 WEBLA004           PF4
     67 WEBLA003           PF3
     66 WEBLA002           PF2
     65 WEBLA001           PF1
     64 WEBLALPD           LIGHT PEN
     06 WEBMATTN           MULTIPLE ATTENTION
     05 WEBSATTN           SINGLE ATTENTION
     04 WEBLACLR           CLEAR KEY (VCNA INTERNAL)
     03 WEBLAPA3           PA3
     02 WEBLAPA2           PA2
     01 WEBLAPA1           PA1

   B    WEBNLLOS    1      NUMBER LINES LEFT ON SCREEN

   C    WEBCURSR    2      RELATIVE CURSOR POSITION

   E    WEBTABCH    1 W*9  LOGICAL TAB CHARACTER

   F    RSV1        1      RESERVED FOR IBM USE

  10    WEBOFSET    2      OFFSET TO DATA

  10    WEBLOGOL    2      NUMBER OF LINES FOR LOAD

  10    WEBWTCNT    2      NUMBER OF BYTES TO WRITE

  12    RSV2        2      RESERVED FOR IBM USE

  12    WEBLOGOB    2      NUMBER OF BYTES PER LINE

  14    WEBVSAWK    4      VCNA WORKAREA

  18    WEBDATA     0      DATA AREA - VARIABLE SIZE

  18    WEBDFLGS    1      DEVICE INFORMATION FLAGS

    Values defined in WEBDFLGS

     08 WEBDHILT           USER HAS ISSUED 'TERM HI ON' COMMAND
     02 WEBDMASK           PRINT  SUPPRESS  FLAG
     01 WEBDATTN           DEVICE ATTENTION FLAG

  18    WEBTYPC     1      LU DEVICE CLASS

    Values defined in WEBTYPC

     80 WEBTERM            KEYBOARD/PRINTER
     40 WEBGRAF            GRAPHICS DEVICE

  19    WEBDMDL     1      DEVICE MODEL

    Values defined in WEBDMDL
```

```
     05 WEBSCRN5           SCREEN SIZE IS 27 X 132
     04 WEBSCRN4           SCREEN SIZE IS 43 X 80
     03 WEBSCRN3           SCREEN SIZE IS 32 X 80
     02 WEBSCRN2           SCREEN SIZE IS 24 X 80

   1A    WEBDFTR     1      DEVICE FEATURES

     Values defined in WEBDFTR

     80 WEBXCLOR           EXTENDED COLOR
     40 WEBXHILI           EXTENDED HIGHLIGHT
     20 WEBXPSS            PROGRAMMED SYMBOL SETS
     10 WEBWSFQ            WSF DATA IS IN WEBDATA

   1B    WEBLINEL    1      DEVICE LINE LENGTH

   1C    WEBSAPTH    2      VCNA IUCV PATHID

   1E    WEBPACE     2      DEVICE PACE VALUE

   20    WEBDTYPE    1      APL INDICATOR/DEVICE TYPE

     Values defined in WEBDTYPE

     00 WEBTMAPL           TERMINAL(K/P)/3210
     04 WEBOLAPL           OLD APL (DEFAULT)/3277
     01 WEBNWAPL           NEW APL (LU 2)/3278

   21    RSV3        1      RESERVED FOR IBM USE

   28    WEBPART2    0      WEBLOK EXTENSION

   28    WEBTYPE     1 W*10 TYPE OF WEB LOGO BLOCK EXTENSION

     Values defined in WEBTYPE

     05 WEBTYPE5           LOGO INPUT AREA FOLLOWS
     04 WEBTYPE4           2741 ONLINE MSG FOLLOWS
     03 WEBTYPE3           TTY ONLINE MSG FOLLOWS
     02 WEBTYPE2           SYSTEM ID DATA FOLLOWS
     01 WEBTYPE1           ADDITIONAL LOGO DATA FOLLOWS

   2A    WEBCNT2     2      LENGTH OF WEBDATA2

   2C    WEBLOGL2    2      NUMBER OF LINES IN SECOND LOGO

   2E    WEBLOGB2    2      NUMBER OF BYTES PER LINE

   30    WEBDATA2    0      DATA AREA - VARIABLE SIZE
```

CROSS REFERENCE
(Name Disp Value)

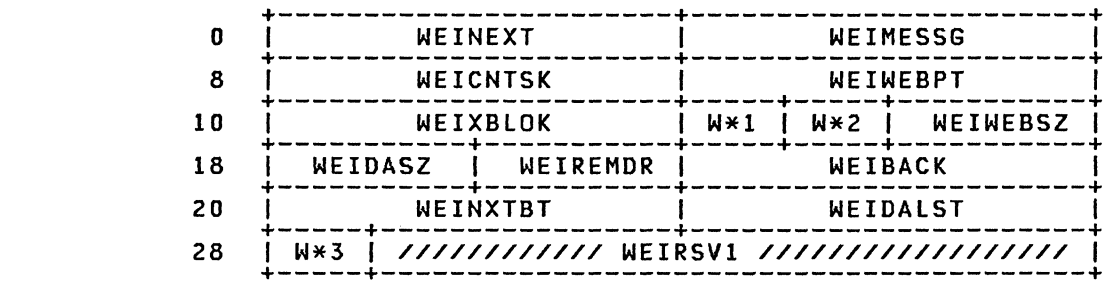
This cross reference contains all the labels defined above
as well as any general equates the copy file may contain.

```
RSV1     000F       WEBCAN   0001  ..   WEBCMCLR 0004  02   WEBCONS  0005  0C
RSV2     0012       WEBCAN1  0001  01   WEBCMEWT 0004  01   WEBCOUNT 0002  ..
RSV3     0021       WEBCHAPL 0006  01   WEBCMSE  0005  01   WEBCPALM 0009  2C
WEBANFSW 0008  10   WEBCHAR  0006  ..   WEBCMWRT 0004  00   WEBCPBRK 0004  02
WEBBSIZE ....  18   WEBCHFO  0006  00   WEBCNT2  002A  ..   WEBCPCAH 0004  0F
WEBBSIZ2 ....   8   WEBCHTN  0006  02   WEBCONMD 0008  40   WEBCPCPY 0004  04
```

WEBCPFKR	0004	06	WEBFMT	0000	..	WEBLA002	000A	66	WEBOLAPL	0020	04
WEBCPFLG	0009	..	WEBFMT1	0000	00	WEBLA003	000A	67	WEBPACE	001E	..
WEBCPHLW	0009	08	WEBFSEAU	0004	06	WEBLA004	000A	68	WEBPART2	0028	..
WEBCPIDA	0004	07	WEBFSEWA	0004	02	WEBLA005	000A	69	WEBPASPA	0008	01
WEBCPIED	0004	05	WEBFSEWT	0004	01	WEBLA006	000A	6A	WEBPRMPT	0008	02
WEBCPINA	0004	08	WEBFSRBP	0004	07	WEBLA007	000A	6B	WEBRDERR	0004	0D
WEBCPLER	0004	0B	WEBFSRDB	0004	04	WEBLA008	000A	6C	WEBSAFLG	0009	..
WEBCPLOG	0004	0C	WEBFSRDM	0004	03	WEBLA009	000A	6D	WEBSAHLD	0009	20
WEBCPLSA	0004	10	WEBFSRMP	0004	08	WEBLA010	000A	6E	WEBSAMOR	0009	10
WEBCPMDE	0009	10	WEBFSSM	0005	02	WEBLA011	000A	6F	WEBSAPTH	001C	..
WEBCPNCR	0009	80	WEBFSWRT	0004	00	WEBLA012	000A	70	WEBSARNR	0009	01
WEBCPPRI	0009	40	WEBFSWSF	0004	05	WEBLA013	000A	71	WEBSARRR	0009	02
WEBCPPTH	0004	0E	WEBFUN	0004	..	WEBLA014	000A	72	WEBSARSP	0009	04
WEBCPRED	0004	01	WEBGRAF	0018	40	WEBLA015	000A	73	WEBSATTN	000A	05
WEBCPREX	0004	09	WEBHIEKO	0007	08	WEBLA016	000A	74	WEBSCRN2	0019	02
WEBCPRNR	0009	01	WEBINACT	0004	09	WEBLA017	000A	75	WEBSCRN3	0019	03
WEBCPRRR	0009	02	WEBINAOK	0004	08	WEBLA018	000A	76	WEBSCRN4	0019	04
WEBCPRSP	0009	04	WEBINATT	0004	02	WEBLA019	000A	77	WEBSCRN5	0019	05
WEBCPTAB	0004	0A	WEBINCB1	0004	05	WEBLA020	000A	78	WEBSIZE	....	3
WEBCPTMR	0004	0D	WEBINERR	0004	03	WEBLA021	000A	79	WEBSIZE2	....	1
WEBCPWIC	0004	03	WEBINFNU	0004	07	WEBLA022	000A	7A	WEBTABCH	000E	..
WEBCPWRT	0004	00	WEBINLER	0004	0B	WEBLA023	000A	7B	WEBTERM	0018	80
WEBCURSR	000C	..	WEBINLGF	0004	06	WEBLA024	000A	7C	WEBTMAPL	0020	00
WEBDATA	0018	..	WEBINLL	....	9	WEBLED	0008	20	WEBTYPC	0018	..
WEBDATA2	0030	..	WEBINLOG	0004	01	WEBLINE	000A	..	WEBTYPE	0028	..
WEBDATTN	0018	01	WEBINOPC	0004	0A	WEBLINEL	001B	..	WEBTYPE1	0028	01
WEBDFLGS	0018	..	WEBINPUT	0004	04	WEBLOGB2	002E	..	WEBTYPE2	0028	02
WEBDFTR	001A	..	WEBINVER	0004	0C	WEBLOGL2	002C	..	WEBTYPE3	0028	03
WEBDHILT	0018	08	WEBINVTM	0004	0E	WEBLOGOB	0012	..	WEBTYPE4	0028	04
WEBDIAL	0008	08	WEBLACLR	000A	04	WEBLOGOL	0010	..	WEBTYPE5	0028	05
WEBDMASK	0018	02	WEBLAID	000A	..	WEBMATTN	000A	06	WEBVSAN	0005	04
WEBDMDL	0019	..	WEBLALPD	000A	64	WEBMODE	0005	..	WEBVSAWK	0014	..
WEBDTYPE	0020	..	WEBLANTR	000A	00	WEBNLLOS	000B	..	WEBWSFQ	001A	10
WEBEDCUP	0007	01	WEBLAPA1	000A	01	WEBNOEKO	0007	02	WEBWTCNT	0010	..
WEBEDIT	0007	..	WEBLAPA2	000A	02	WEBNOMOR	0008	04	WEBXCLOR	001A	80
WEBEDPTI	0007	04	WEBLAPA3	000A	03	WEBNWAPL	0020	01	WEBXHILI	001A	40
WEBENVR	0005	..	WEBLA001	000A	65	WEBOFSET	0010	..	WEBXPSS	001A	20
WEBFLAGS	0008	..									

WEIBLOK: WORK ELEMENT IDENTIFICATION BLOCK

WEIBLOK is created by SNA Console Communications Services (SNA CCS) as a header for a Work Element Block (WEBLOK) that is passed between SNA CCS and the VCNA. It identifies a unit of work that is scheduled or has not yet been processed. It is chained from the SNARBLOK. WEIBLOK is found in WEIBLOK copy.



SIZE

WEIBLOK SIZE IN DOUBLEWORDS (WEISIZE) 6

Disp	Name	Len	Key	Description
0	WEINEXT	4		ADDRESS OF NEXT WEIBLOK
4	WEIMESSG	4		MESSAGE ID FOR THE WEBLOK
8	WEICNTSK	4		ADDRESS OF CONTASK FOR THE WEBLOK
C	WEIWEBPT	4		ADDRESS OF THE WEBLOK
10	WEIXBLOK	4		ADDRESS OF IUCV IXBLOK
14	WEIFLAG1	1	W*1	STATUS FLAGS
	Values defined in WEIFLAG1			
	80 WEIRSTRQ			RESTART 'NOT PROCESSED' REQUEST
	40 WEIDBLRD			REQUEST NOT PROCESSED - MULTIPLE READS
	20 WEIBIPRG			BATCHING IN PROGRESS
	10 WEIBFSND			WRITE THE BUFFER
	08 WEIDONE			RETURN CODE IS ALREADY SET
	04 WEIMSGFL			REQUEST NOT PROCESSED-MSG LIMIT EXCEEDED
	02 WEIQUIET			REQUEST NOT PROCESSED - QUIESCE
	01 WEIRESPN			RESPONSE IS REQUIRED
15	WEILAID	1	W*2	LOGICAL AID FROM VCNA
16	WEIWEBSZ	2		SIZE OF CHAINED WEBLOK IN DOUBLEWORDS
18	WEIDASZ	2		WIDABLOK SIZE IN DOUBLEWORDS
1A	WEIREMDR	2		NUMBER OF BYTES REMAINING IN BUFFER
1C	WEIBACK	4		ADDRESS OF PREVIOUS WEIBLOK

```
  20   WEINXTBT   4       ADDRESS OF AVAILABLE BYTE
  24   WEIDALST   4       ADDRESS OF WIDABLOK
  28   WEIFLAG2   1 W*3   STATUS BYTES
    Values defined in WEIFLAG2
    80 WEINOIDA           NON-IDA DATA PRESENT
  29   WEIRSV1    7       RESERVED FOR IBM USE
```

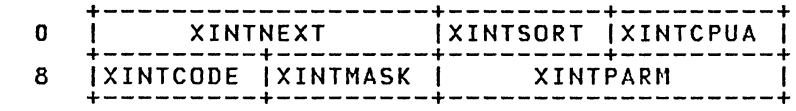
CROSS REFERENCE
(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

```
WEIBACK  001C  ..   WEIDONE  0014  08   WEINEXT  0000  ..   WEIRSTRQ 0014  80
WEIBFSND 0014  10   WEIFLAG1 0014  ..   WEINOIDA 0028  80   WEIRSV1  0029  ..
WEIBIPRG 0014  20   WEIFLAG2 0028  ..   WEINXTBT 0020  ..   WEISIZE  ....   6
WEICNTSK 0008  ..   WEILAID  0015  ..   WEIQUIET 0014  02   WEIWEBPT 000C  ..
WEIDALST 0024  ..   WEIMESSG 0004  ..   WEIREMDR 001A  ..   WEIWEBSZ 0016  ..
WEIDASZ  0018  ..   WEIMSGFL 0014  04   WEIRESPN 0014  01   WEIXBLOK 0010  ..
WEIDBLRD 0014  40
```

XINTBLOK: EXTERNAL INTERRUPT BLOCK

XINTBLOK saves the various types of external interrupts that are presented to the virtual machine. If multiple external interrupt conditions are simultaneously presented, as indicated by values presented in the block, code exists for handling the interrupts in their defined hierarchical order. The VMPXINT field of the VMBLOK points to XINTBLOK. XINTBLOK is found in XINTBLOK copy.



SIZE

SIZE OF BLOCK IN DOUBLEWORDS (XINTSIZE) 2

Disp	Name	Len	Key	Description
0	XINTNEXT	4		ADDRESS OF NEXT EXTERNAL INTERRUPT BLOCK
4	XINTSORT	2		FIRST HALF OF COLLATING NUMBER OF INTERRUPT
6	XINTCPUA	2		2ND HALF OF ABOVE
8	XINTCODE	2		EXTERNAL INTERRUPT CODE
A	XINTMASK	2		CONTROL REGISTER 0 MASK (BITS 16-31)
C	XINTPARM	4		EXTERNAL INTERRUPT PARAMETER WORD

CROSS REFERENCE

(Name Disp Value)

This cross reference contains all the labels defined above as well as any general equates the copy file may contain.

XINTCODE 0008 .. XINTMASK 000A .. XINTPARM 000C .. XINTSORT 0004 ..
XINTCPUA 0006 .. XINTNEXT 0000 .. XINTSIZE 0000 02

APPENDIXES

Information in the following appendixes supplements the text in Section 1 of this publication:

- "Appendix A. CP Equate Symbols" contains assembler language equate symbols used by CP to reference data.
- "Appendix B. Data Areas and Control Block References" lists the names of CP control blocks. This appendix (1) shows module references to data areas and/or control blocks and (2) gives information on how certain data area and/or control blocks are created and released.

APPENDIX A. CP EQUATE SYMBOLS

This Appendix contains Assembler language equate symbols used to reference CP data for:

- Device Classes, Types, Models, and Features
- Machine Usage
- Extended Control Registers
- CP Usage
- Registers
- Usage Equates.

DEVICE CLASSES, TYPES, MODELS, AND FEATURES

```
CLASTERM EQU   X'80'          Terminal device class

TYP2700  EQU   X'40'          2700 bisynchronous line
TYP2955  EQU   TYP2700        2955 communications line
TYPTELE2 EQU   X'20'          Telegraph terminal control type II
TYPTTY   EQU   X'20'          Teletype terminal
TYPIBM1  EQU   X'10'          IBM terminal control type I
TYP2741  EQU   X'18'          2741 communications terminal
TYP1050  EQU   X'14'          1050 communications terminal
TYPUNDEF EQU   X'1C'          Terminal device type is undefined
TYPBSC   EQU   X'80'          Bisynchronous line for remote 3270s
TYPSDLC  EQU   X'08'          Synchronous data link control
TYP3210  EQU   X'00'          3210 console
TYP3215  EQU   TYP3210        3215 console
TYP2150  EQU   TYP3210        2150 console
TYP1052  EQU   TYP3210        1052 console
TYPSS    EQU   X'30'          Start/stop console

FTRDIAL  EQU   X'01'          Dial feature
FTR3270  EQU   X'02'          3270 mode, virtual 3215 device

CLASGRAF EQU   X'40'          Graphics device class

TYPHFGD  EQU   X'C0'          High Function Graphics Device
TYP2250  EQU   X'80'          2250 display unit
TYP2260  EQU   X'40'          2260 display station
TYP2265  EQU   X'20'          2265 display station
TYP3066  EQU   X'10'          3066 console
TYP1053  EQU   X'08'          1053 printer
TYP3235  EQU   TYP3284        3235 printer
TYP3277  EQU   X'04'          3277 display station
TYP3278  EQU   X'01'          3278 display station/system console
TYP3279  EQU   TYP3278        3279 display station
TYP3284  EQU   X'02'          3284 printer
TYP3286  EQU   TYP3284        3286 printer
TYP3287  EQU   TYP3284        3287 printer
TYP3288  EQU   TYP3284        3288 printer
TYP3289  EQU   TYP3284        3289 printer
TYP3290  EQU   TYP3278        3290 display station
TYP3138  EQU   TYP3277        3138 system console
TYP3148  EQU   TYP3277        3148 system console
TYP3158  EQU   TYP3277        3158 system console

FTROPRDR EQU   X'80'          Operator identification card reader

CLASURI  EQU   X'20'          Unit record input device class

TYPRDR   EQU   X'80'          Card reader device
TYP2501  EQU   X'81'          2501 card reader
TYP2540R EQU   X'82'          2540 card reader
TYP3505  EQU   X'84'          3505 card reader
TYP1442R EQU   X'88'          1442 card reader/punch
TYP2520R EQU   X'90'          2520 card reader/punch
TYPTIMER EQU   X'40'          Timer device
TYPTR    EQU   X'20'          Tape reader device
TYP2495  EQU   X'21'          2495 magnetic tape cartridge reader
TYP2671  EQU   X'22'          2671 paper tape reader
TYP1017  EQU   X'24'          1017 paper tape reader
```

```
CLASURO  EQU   X'10'          Unit record output device class

TYPPUN   EQU   X'80'          Card punch device
TYP2540P EQU   X'82'          2540 card punch
TYP3525  EQU   X'84'          3525 card punch
TYP1442P EQU   X'88'          1442 card punch
TYP2520P EQU   X'90'          2520 card punch
TYPPRT   EQU   X'40'          Printer type device
TYP1403  EQU   X'41'          1403 printer
TYP3211  EQU   X'42'          3211 printer
TYP3203  EQU   X'43'          3203 printer (1403+3211)
TYP1443  EQU   X'44'          1443 printer
TYP3289E EQU   X'46'          3289-E printer
TYP3262  EQU   X'47'          3262 printer
TYP4245  EQU   X'4A'          4245 printer
TYP4248  EQU   X'4B'          4248 printer
TYP3800  EQU   X'45'          3800 Model 1 printing subsystem
TYP3803  EQU   X'49'          3800 Model 3 printing subsystem
TYP3808  EQU   C'4D'          3800 Model 8 printing subsystem
TYPTP    EQU   X'20'          Tape punch device
TYP1018  EQU   X'24'          1018 paper tape punch

FTRUCS   EQU   X'01'          UCS feature
FTR4WCGM EQU   X'80'          3800 has four WCGM available.
                              Note:  FTREXTSN (X'40') is also used for
                              a 3800 printer.

CLASTAPE EQU   X'08'          Magnetic tape device class

TYP2401  EQU   X'80'          2401 tape drive
TYP2415  EQU   X'40'          2415 tape drive
TYP2420  EQU   X'20'          2420 tape drive
TYP3420  EQU   X'10'          3420 tape drive
TYP3410  EQU   X'08'          3410 tape drive
TYP3411  EQU   TYP3410        3411 tape drive
TYP8809  EQU   X'04'          8809 tape drive
TYP3430  EQU   X'02'          3430 tape drive
TYP3480  EQU   X'01'          3480 tape drive

FTR7TRK  EQU   X'80'          7-track feature
FTRDLDNS EQU   X'40'          Dual density feature
FTRTRANS EQU   X'20'          Translate feature
FTRDCONV EQU   X'10'          Data conversion feature

CLASDASD EQU   X'04'          Direct access storage device class

TYP2311  EQU   X'80'          2311 disk storage drive
TYP2314  EQU   X'40'          2314 disk storage facility
TYP2319  EQU   TYP2314        2319 disk storage facility
TYP2321  EQU   TYP2311        2321 data cell drive
TYP3330  EQU   X'10'          3330 disk storage facility
TYP3333  EQU   TYP3330        3333 disk storage facility
TYP3350  EQU   X'08'          3350 disk storage facility
TYP3375  EQU   X'04'          3375 disk storage facility
TYP3380  EQU   X'20'          3380 disk storage facility
TYP2301  EQU   TYP2311        2301 parallel drum
TYP2303  EQU   TYP2311        2303 serial drum
TYP2305  EQU   X'02'          2305 fixed head storage device
TYP3340  EQU   X'01'          3340 disk storage facility

FTRRPS   EQU   X'80'          Rotational positional sensing (RPS) installed
                                (3340)
FTRFH    EQU   FTRRPS         Fixed head device
FTREXTSN EQU   X'40'          Extended sense bytes (24 bytes)
FTR2311T EQU   X'20'(= VDEV231T)  Top half of 2314 used as 2311
FTR2311B EQU   X'10'(= VDEV231B)  Bottom half of 2314 used as 2311
```

```
FTR35MB   EQU   X'08'          35 megabyte data module mounted (3340)
FTR70MB   EQU   X'04'          70 megabyte data module mounted (3340)
FTRRSRL   EQU   X'02'          Reserve/release are valid CCW operation codes
VIRTUAL   EQU   X'01'          Device is a 3330V virtual machine
SYSVIRT   EQU   X'20'          Device is a 3330V system virtual machine
FTRVIRT   EQU   X'01'          3330 virtual (MSS) volume
CLASSPEC  EQU   X'02'          Special device class
TYPCTCA   EQU   X'80'          Channel-to-channel adapter
TYP3088   EQU   TYPCTCA        Treat as regular CTCA
TYP3704   EQU   X'40'          3704 programmable communication control unit
TYP3705   EQU   TYP3704        3705 programmable communication control unit
TYP3851   EQU   X'20'          3851 Mass Storage Controller
TYPSRF    EQU   X'04'          Service Record File device (#7443)
TYPUNSUP  EQU   X'01'          Device not supported by VM/SP HPO

FTRTYP1   EQU   X'10'          Type 1 channel adapter (370x)
FTRTYP2   EQU   X'20'          Type 2 channel adapter (370x)
FTR3088   EQU   X'40'          CTC is type 3088
FTRTYP3   EQU   FTRTYP2        Treat as type 2 channel adapter (370x)
FTRTYP4   EQU   FTRTYP1        Treat as type 1 channel adapter (370x)

CLASFBA   EQU   X'01'          Fixed block storage device class

TYPFBA    EQU   X'00'          Generic fixed block storage device
TYP3310   EQU   X'01'          3310 fixed block storage device
TYP3370   EQU   X'02'          3370 fixed block storage device
UT3310    EQU   X'01'          3310 unit type from RDC data
UT3370    EQU   X'02'          3370 Model A1 or B1 unit type from RDC dat
UT3370M4  EQU   X'05'          3370 Model A2 or B2 unit type from RDC dat
RDEVM000  EQU   X'00'          3310 or 3370 Model A1 or B1
RDEVM004  EQU   X'04'          3370 Model A2 or B2
```

EQUATE SYMBOLS -- MACHINE USAGE

Bits defined in Standard/Extended PSW

```
SAS       EQU   X'80'          Secondary address space
EXTMODE   EQU   X'08'          Bit 12 - extended mode
MCHEK     EQU   X'04'          Bit 13 - machine check enabled
WAIT      EQU   X'02'          Bit 14 - wait state
PROBMODE  EQU   X'01'          Bit 15 - problem state
SAS       EQU   X'80'          Secondary address space
```

Bits defined in Extended PSW

```
PERMODE   EQU   X'40'          Bit 01 - PER enabled
TRANMODE  EQU   X'04'          Bit 05 - translate mode
IOMASK    EQU   X'02'          Bit 06 - summary I/O mask
EXTMASK   EQU   X'01'          Bit 07 - summary external mask
```

Bits defined in Translation Exception Address Byte 0 (location 144)

```
SASPF     EQU   X'80'          Secondary address space page fault
RAPF      EQU   X'C0'          Real address space page fault
SSEBC     EQU   X'80'          Space switch event bit copy
SSEF      EQU   X'40'          SSE due to DASA SSAR, LASP function
```

Bits defined in Channel Status Word (CSW)

```
DFRCC     EQU   X'03'          Bits 6-7 - deferred condition code
DFRCC1    EQU   X'01'          Bits 6-7 - deferred condition code
DFRCC3    EQU   X'03'          Bits 6-7 - deferred condition code
ATTN      EQU   X'80'          Bit 32 - attention
SM        EQU   X'40'          Bit 33 - status modifier
CUE       EQU   X'20'          Bit 34 - control unit end
BUSY      EQU   X'10'          Bit 35 - busy
CE        EQU   X'08'          Bit 36 - channel end
```

```
DE        EQU   X'04'          Bit 37 - device end
UC        EQU   X'02'          Bit 38 - unit check
UE        EQU   X'01'          Bit 39 - unit exception
PCI       EQU   X'80'          Bit 40 - program-control interrupt
IL        EQU   X'40'          Bit 41 - incorrect length
PRGC      EQU   X'20'          Bit 42 - program check
PRTC      EQU   X'10'          Bit 43 - protection check
CDC       EQU   X'08'          Bit 44 - channel data check
CCC       EQU   X'04'          Bit 45 - channel control check
IFCC      EQU   X'02'          Bit 46 - interface control check
CHC       EQU   X'01'          Bit 47 - chaining check

Bits defined in Channel Command Word (CCW)
CD        EQU   X'80'          Bit 32 - chain data
CC        EQU   X'40'          Bit 33 - command chain
SILI      EQU   X'20'          Bit 34 - suppress incorrect length indicator
SKIP      EQU   X'10'          Bit 35 - suppress data transfer
PCIF      EQU   X'08'          Bit 36 - program-control interrupt FETCH
IDA       EQU   X'04'          Bit 37 - indirect data address

Bits defined in Sense Byte 0 (common to most devices)
CMDREJ    EQU   X'80'          Bit 0 - command reject
INTREQ    EQU   X'40'          Bit 1 - intervention required
BUSOUT    EQU   X'20'          Bit 2 - bus out
EQCHK     EQU   X'10'          Bit 3 - equipment check
DATACHK   EQU   X'08'          Bit 4 - data check
```

EQUATE SYMBOLS -- EXTENDED CONTROL REGISTERS

```
Bits defined in CREG 0
• BYTE 0
BLKMPX    EQU   X'80'          Bit 00 - enable block multiplexing
SSMSUPP   EQU   X'40'          Bit 01 - enable SSM suppression
TODSYNC   EQU   X'20'          TOD synchronous control
LAP370E   EQU   X'10'          Low address problem active
OLDKEYOP  EQU   X'01'          Allow the old key op's

• BYTE 1
PAGE4K    EQU   X'80'          Bit 08 - use 4K pages
PAGE2K    EQU   X'40'          Bit 09 - use 2K pages
SEG1M     EQU   X'10'          Bit 11 - use 1M segments
VECF      EQU   X'02'          BIT 14 - VECTOR FACILITY CONTROL

• BYTE 2
MFAMASK   EQU   X'80'          Bit 16 - malfunction alert mask
EMSMASK   EQU   X'40'          Bit 17 - emergency signal mask
XCMASK    EQU   X'20'          Bit 18 - external call mask
SYNCMASK  EQU   X'10'          Bit 19 - TOD synchronous check mask
CKCMASK   EQU   X'08'          Bit 20 - mask on clock comparator interrupt
CPTMASK   EQU   X'04'          Bit 21 - mask on processor timer interrupt
MSSFMASK  EQU   X'02'          Bit 22 - mask on MSSF interrupt

• BYTE 3
INTMASK   EQU   X'80'          Bit 24 - mask on interval timer interrupt
KEYMASK   EQU   X'40'          Bit 25 - mask on operator key interrupt
SIGMASK   EQU   X'20'          Bit 26 - mask on external signals 2 through 7

Bits defined in CREG 0 for DASF
• BYTE 0
EXTRACTL  EQU   X'08'          Extraction authority control

Bits defined in CREG 1 for DAS
• BYTE 3
```

```
SSEB      EQU   X'01'          Space switch event bit

Bits defined in CREG 6 for 370E
• BYTE 0
PROB370E  EQU   X'40'          Virtual machine is running in virtual problem
                               state

• BYTE 3
MVSA370E  EQU   X'04'          MVSA (MVS/System Product support) is active
PMAON     EQU   X'02'          Preferred machine is active

Bits defined in CREG 9
• BYTE 0
PERSUBR   EQU   X'80'          Bit 00 - Monitor successful branches
PERIFET   EQU   X'40'          Bit 01 - Monitor instruction fetches
PERSALT   EQU   X'20'          Bit 02 - Monitor storage alteration
PERGPRS   EQU   X'10'          Bit 03 - Monitor register alteration

Bits defined in CREG14
• BYTE 0
HARDSTOP  EQU   X'80'          Bit 00 - check stop control
SYNCLOG   EQU   X'40'          Bit 01 - synchronous logout control
IOLOG     EQU   X'20'          Bit 02 - I/O logout control
RECOVRPT  EQU   X'08'          Bit 04 - recovery report mask
CONFGRPT  EQU   X'04'          Bit 05 - configuration report mask
DAMAGRPT  EQU   X'02'          Bit 06 - external damage report mask
WARNGRPT  EQU   X'01'          Bit 07 - warning condition report mask

• BYTE 1
ASYNELOG  EQU   X'80'          Bit 08 - asynchronous extended logout control
ASYNFLOG  EQU   X'40'          Bit 09 - asynchronous fixed logout control
```

EQUATE SYMBOLS -- CP USAGE

```
Bits defined for TRANS macro
BRING     EQU   X'80'          Bring requested page
DEFER     EQU   X'40'          Defer execution until page in core
LOCK      EQU   X'20'          Lock page for I/O operation
IOERETN   EQU   X'10'          Return I/O errors to caller
SYSTEM    EQU   X'08'          Call to DMKPTRAN for system virtual machine
                                 space
VFAULT    EQU   X'04'          DMKPTRAN call for virtual page.  Caller will
                                 not utilize real address

Bits defined for Parameter Field for Calls to DMKBLDRT/DMKBLDRL
DELSEGS   EQU   X'80'          Release the segment tables
DELPAGES  EQU   X'40'          Release the page/swap tables
VRALOC    EQU   X'20'          Attempt allocation of Virtual=Real area
PAGTONLY  EQU   X'10'          Only one page table and return
NEWPAGES  EQU   X'08'          Build new page/swap table
NEWSEGS   EQU   X'04'          Build new segment table
KEEPSEGS  EQU   X'02'          Retain information in old  segment table
OLDVMSEG  EQU   X'01'          VMSEG pointer in VMBLOK valid

Equates and Bits defined for Terminal I/O via DMKQCN
HILIGHT   EQU   X'8000'        Output - highlighted data stream
NOTRESP   EQU   X'4000'        Output - message not a command response
SECUSER   EQU   X'2000'        Output - write is for a disc user
VIRDEVAD  EQU   X'1000'        Remote process - R4 has cuu of device
ERRMSG    EQU   X'0800'        Output - control program error message
NORET     EQU   X'0400'        Output - return immediately after call
DFRET     EQU   X'0200'        Output - FRET buffer after queueing
OPERATOR  EQU   X'0100'        Output - message for system operator
```

```
LOGDROP  EQU   X'80'          Output - logoff and drop line after message
LOGHOLD  EQU   X'40'          Output - logoff and hold line after message
PRIORITY EQU   X'20'          Output - write this message immediately
VMGENIO  EQU   X'10'          I/O request generated by virtual machine
IMSG     EQU   X'08'          Output - CP informational message
INHIBIT  EQU   X'08'          Input - prevent display of this data
NOAUTO   EQU   X'04'          Output - suppress automatic carriage return
EDIT     EQU   X'04'          Input - edit input data for corrections
ALARM    EQU   X'02'          Output - sound the audible alarm
UCASE    EQU   X'02'          Input - translate data to uppercase
NOTIME   EQU   X'01'          Output - suppress time stamp on message

Equates and Bits Defined for Spool File Recovery Routine - DMKCKS
CHGSHQ   EQU   X'0200'        Checkpoint a SHQBLOK
CHGRDV   EQU   X'0100'        Change attributes of real device
ACTSFB   EQU   X'80'          File being printed or punched
OPNSFB   EQU   X'40'          An open print-punch file
DELSFB   EQU   X'20'          Delete SFBLOK from checkpoint
CHGSFB   EQU   X'10'          Change existing SFBLOK
ADDSFB   EQU   X'08'          Add new SFBLOK to recovery cylinder
PRTCHN   EQU   X'04'          SFBLOK goes on print chain
PCHCHN   EQU   X'02'          SFBLOK goes on punch chain
RDRCHN   EQU   X'01'          SFBLOK goes on reader chain

Equates for VMSAVE SET/RESET Routine - DMKCFS
ASLOGON  EQU   X'80'          Parameter to set VMSAVE option on maybe
ASON     EQU   X'40'          Parameter to set VMSAVE on
ASOFF    EQU   X'20'          Parameter to reset VMSAVE option

Equates for DASD READ/WRITE Routine - DMKRPA
NORLSE   EQU   X'01'          Special linkage for virtual machine generation
                              via IPL

Equates for flag DMKSCHAL.
Q1DROP   EQU   X'40'          User dropped from queue 1
TSEND    EQU   X'20'          Drop because of time-slice end
TMRDRP   EQU   X'10'          Queue drop because of timer delay

Equates for TDISK Clear Option
CLEARBIT EQU   X'80'          TDISK Clear Byte

Equates for Unit Record Status Display Routine - DMKURSTA
URSDEV   EQU   X'0001'        Device status message
URSFILE  EQU   X'0002'        File status message
URSOPER  EQU   X'0004'        Message to system operator
URSUSER  EQU   X'0008'        Message to user
URSSTACK EQU   X'0010'        Message to VMOSTK
URSSTART EQU   X'0020'        Use "started" in device message
URSPATH  EQU   X'0040'        Path status requested
URSREP   EQU   X'0100'        Use "repeated" in file message
URSBACK  EQU   X'0200'        Use "backspace" in file message
URSFLUSH EQU   X'0300'        Use "flush" in file message
URSHELD  EQU   X'0400'        Use "file held" in file message
URSREAD  EQU   X'0500'        Use "has read..." in file message

Equates Defined for Message System Service
MSGMSG   EQU   1              Indicate IUCV message
MSGWNG   EQU   2              Indicate IUCV warning
MAGCPIO  EQU   3              Indicate IUCV CP I/O
MAGSMSG  EQU   4              Indicate IUCV special message
MSGVMIO  EQU   5              Indicate IUCV VM I/O
MSGEMSG  EQU   6              Indicate IUCV error message
MSGIMSG  EQU   7              Indicate IUCV information message
MSGSCIF  EQU   8              Indicate IUCV SCIF message

Equates Defined for the MSSF
```

```
MSSFINTR EQU   X'2401'          MSSF interrupt code

Equates Defined for Class and Code Definitions
SVMUNLOK EQU   X'04'            Unlock only the current virtual machine
SVMNOUPD EQU   X'02'            Lock virtual machine with NOUPDT option
SVMSTAY  EQU   X'01'            Stack CPEXBLOK for current processor

Equates Defined for Monitor Classes and Codes
MNCLPERF EQU   X'00'            Monitor perform class
MNCOSYS  EQU   X'0000'          Perform class, system performance
MNCOTH   EQU   X'0061'          Monitor tape header record
MNCOTT   EQU   X'0062'          Monitor tape trailer record
MNCOSUS  EQU   X'0063'          Monitor collection suspension record

MNCLRESP EQU   X'01'            Monitor response class
MNCOBRD  EQU   X'0000'          Response class, begin read code
MNCOWRIT EQU   X'0001'          Response class, write code
MNCOERD  EQU   X'0002'          Response class, end read code

MNCLSCH  EQU   X'02'            Monitor schedule class
MNCODQ   EQU   X'0002'          Schedule class, drop queue code
MNCOAQ   EQU   X'0003'          Schedule class, add to queue code
MNCOAEL  EQU   X'0004'          Schedule class, add to eligible list code

MNCLSWAP EQU   X'03'            Monitor swap class
MNCODLSO EQU   X'0000'          Swap class, logical swap out
MNCODSOS EQU   X'0001'          Swap class, start of Physical swap out
MNCODEOS EQU   X'0002'          Swap class, end of Physical swap out
MNCODSIS EQU   X'0003'          Swap class, start of physical swap in
MNCODEIS EQU   X'0004'          Swap class, end of physical swap in
MNCODLSI EQU   X'0005'          Swap class, logical swap in

MNCLUSER EQU   X'04'            Monitor user class
MNCOUSER EQU   X'0000'          User class, user data

MNCLINST EQU   X'05'            Monitor instruction simulation class
MNCOSIM  EQU   X'0000'          Instruction class; instruction simulation
                                code

MNCLDAST EQU   X'06'            Monitor DASD/tape class
MNCODASH EQU   X'0000'          DASTAP class, first record
MNCODAS  EQU   X'0001'          DASTAP class, data records
MNCODSSS EQU   X'0004'          Subsystem status record
MNCODSSC EQU   X'0005'          Subsystem counts record
MNCODSC1 EQU   X'0006'          Subsystem counts for 3880-X3
MNCODSS1 EQU   X'0007'          Subsystem status for 3880-X3

MNCLSEEK EQU   X'07'            Monitor DASD class
MNCOCYL  EQU   X'0000'          DASD class, seeks code

MNCLSYS  EQU   X'08'            Monitor system profile class
MNCODA   EQU   X'0002'          SYS class, DASD data

MNCLSWPX EQU   X'09'            Swapage class

NOMC     EQU   X'10'            Disallow MC flag for graphics

Equates for protect key bits
KEYCHG   EQU   X'02'            Change bit
KEYREF   EQU   X'04'            Reference bit
KEYRFCHG EQU   X'06'            Reference and change bits

Equates for RRB test condition codes
UNUSED   EQU   8                Neither changed nor referenced
UNREF    EQU   8+4              Unreferenced page(s)
UNCHG    EQU   8+2              Unchanged page(s)
```

```
REF       EQU   2+1          Referenced page(s)
CHG       EQU   4+1          Changed page(s)
```

Equates Defined for SIGNAL Macro

```
SIGQUI    EQU   X'800'       Quiesce emergency signal
SIGAPR    EQU   X'800'       Automatic processor recovery (external call
                               signal)
SIGEXT    EQU   X'400'       Extend emergency signal
SIGRES    EQU   X'400'       Resume external call signal
SIGWAKE   EQU   X'200'       Wakeup external call signal
SIGSYNC   EQU   X'200'       Clock synchronization emergency signal
SIGSHD    EQU   X'100'       Shutdown emergency signal
SIGDISP   EQU   X'100'       Dispatch external call signal
SIGCLK    EQU   X'080'       Clock check signal (external call signals)
SIGXEX    EQU   X'040'       Extend exit
SIGCR     EQU   X'0C'        Processor reset order code emergency signals
SIGICR    EQU   X'0B'        Initial processor reset order code
SIGIML    EQU   X'0A'        Initial microprogram load order code
SIGSSS    EQU   X'09'        Stop and store status order code
SIGPR     EQU   X'08'        Program reset order code
SIGIPR    EQU   X'07'        Initial program reset order code
SIGREST   EQU   X'06'        Restart order code
SIGSTOP   EQU   X'05'        Stop order code
SIGSTART  EQU   X'04'        Start order code
SIGEMS    EQU   X'03'        Emergency signal order code
SIGXC     EQU   X'02'        External call order code
SIGSENSE  EQU   X'01'        Sense order code
```

Equates Defined for TRACE macro

```
TRCEXT    EQU   X'01'        External interrupt entry point
TRCSVC    EQU   X'02'        SVC interrupt entry point
TRCPGM    EQU   X'03'        Program interrupt entry point
TRCMCH    EQU   X'04'        Machine check interrupt entry point
TRCIO     EQU   X'05'        I/O interrupt entry point
TRCFREE   EQU   X'06'        Free storage entry point
TRCFRET   EQU   X'07'        Return storage entry point
TRCSCH    EQU   X'08'        Enter scheduler entry point
TRCDROP   EQU   X'09'        Queue drop entry point
TRCRUN    EQU   X'0A'        Run user entry point
TRCSIO    EQU   X'0B'        Start I/O entry point
TRCUNSTK  EQU   X'0C'        Unstack I/O interrupt entry point
TRCCSW    EQU   X'0D'        Virtual CSW store entry point
TRCTIO    EQU   X'0E'        Test I/O entry point
TRCHALT   EQU   X'0F'        Halt device entry point
TRCUNBLK  EQU   X'10'        Unstack IOBLOK or TRQBLOK entry point
TRCNCP    EQU   X'11'        NCP basic transmission unit entry point
TRCLOK    EQU   X'12'        Spin lock entry point
TRCSIGP   EQU   X'13'        Signal processor (SIGP) entry point
TRCCLCH   EQU   X'14'        Clear channel entry
TRCIUCV   EQU   X'15'        IUCV entry
TRCVCS    EQU   X'16'        SNA CCS transaction tracing
TRCMSSF   EQU   X'17'        DIAGNOSE X'80' (MSSFCALL) entry
TRCSIOF   EQU   X'18'        I/O operation started via SIOF
TRCSMINT  EQU   X'19'        Simulated I/O interrupt
TRCFPRUN  EQU   X'1A'        Dispatched user through fast path
TRCCLRIO  EQU   X'1B'        Clear I/O entry
TRCPTSRS  EQU   X'1C'        Page reset (entries to DMKPTSRS)
TRCSWAPI  EQU   X'1D'        Swap-in of VM (entry to DMKSWAPI)
TRCFREEP  EQU   X'1E'        Prime storage free
TRCFRET   EQU   X'1F'        Prime storage fret
```

Equates Defined for SWTCHVM macro

```
SVMSTAY   EQU   X'01'        Stack CPEXBLOK for current procedure
SVCNOUPD  EQU   X'02'        Lock virtual machine with NOUPDT option
SVCUNLOK  EQU   X'04'        Only unlock current virtual machine
```

```
Equates Defined for Missing Interrupt Handler
MIHMISC   EQU   16            Mass storage system devices
MIHUR     EQU   12            Unit record device(s)
MIHTAPE   EQU   08            Tape drive device(s)
MIHGRAF   EQU   04            Graphics device(s)
MIHDASD   EQU   00            Direct access storage device(s)

Flag description for DMKPGTMX paging controls
XPPFULL   EQU   X'80'         Type=PP areas full
XPGFULL   EQU   X'40'         Type=PG areas full
XMIGSWT   EQU   X'08'         Migrate SWPTABLE
XMIGACT   EQU   X'01'         Page migration active

Equates Defined for Expanded Storage Support
PSTRCPAG  EQU   X'128'        Number of pages in a PSTOR RECBLOK
PSTRCPG$  EQU   X'07'         LOG2 of PSTRCPAG
PSTRCBYT  EQU   X'16'         Bytes in a PSTOR RECMAPP
```

REGISTERS

Symbolic Register Equates

```
R0        EQU   0    }
R1        EQU   1    }
R2        EQU   2    }
R3        EQU   3    }
R4        EQU   4    }
R5        EQU   5    }
R6        EQU   6    }
R7        EQU   7    }          General register definitions
R8        EQU   8    }
R9        EQU   9    }
R10       EQU   10   }
R11       EQU   11   }
R12       EQU   12   }
R13       EQU   13   }
R14       EQU   14   }
R15       EQU   15   }

V0        EQU   0
V1        EQU   1
V2        EQU   2
V3        EQU   3
V4        EQU   4
V5        EQU   5
V6        EQU   6              Vector
V7        EQU   7              Facility
V8        EQU   8              register
V9        EQU   9              definitions
V10       EQU   10
V11       EQU   11
V12       EQU   12
V13       EQU   13
V14       EQU   14
V15       EQU   15

Y0        EQU   0    }
Y2        EQU   2    }          Floating-point register definitions
Y4        EQU   4    }
Y6        EQU   6    }

C0        EQU   0    }
C1        EQU   1    }
C2        EQU   2    }
C3        EQU   3    }
C4        EQU   4    }
C5        EQU   5    }
C6        EQU   6    }
C7        EQU   7    }          Control register definitions
C8        EQU   8    }
C9        EQU   9    }
C10       EQU   10   }
C11       EQU   11   }
C12       EQU   12   }
C13       EQU   13   }
C14       EQU   14   }
C15       EQU   15   }
```

USAGE EQUATES

```
Assorted Equates
X05       EQU    X'05'     Hexadecimal 5
VHD       EQU    X'80'     V=R guest running as virtual half duplex
SPM       EQU    X'80'     System was in SPMODE
NOTIPL    EQU    X'40'     Processor is not the IPL'd processor
ALLCHANS  EQU    X'32'     Maximum channels/processor

DMKMACD parameter equates
CDDEF     EQU    X'08'     Virtual address is being redefined
CDDED     EQU    X'04'     Virtual address is to be dedicated
CDVADD    EQU    X'02'     Check virtual address only
CDCONF    EQU    X'01'     Check all devices
```

Equates Defined for Dispatching and Scheduling Modifications

- Equates used in testing RRB condition codes

```
RRBNTREF  EQU    8+4       Reference bits off  --  Change ?
RRBREF    EQU    2+1       Reference bits on   --  Change ?
RRBNTCHG  EQU    8+2       Reference bits ?  --  Change off
RRBCHNG   EQU    8+2       Reference bits ?  --  Change on
UNUSED    EQU    8         Neither changed nor referenced
UNREF     EQU    8+4       Unreferenced page(s)
UNCHG     EQU    8+2       Unchanged page(s)
REF       EQU    2+1       Referenced page(s)
CHG       EQU    4+1       Changed page(s)
```

- Equates for logical operations

```
ZEROANS   EQU    2         Zero answer with carry
NOALCARY  EQU    8+4       No real carry on add logical
NOSLBORO  EQU    8+2+1     No real borrow on subtract logical
SLNONPOS  EQU    8+4+2     Zero or negative answer on subtract
                             logical
```

```
Symbols for Symbolic Length          Symbols for Displacement

L0        EQU     0          D0        EQU     0
L1        EQU     1          D1        EQU     1
L2        EQU     2          D2        EQU     2
L3        EQU     3          D3        EQU     3
L4        EQU     4          D4        EQU     4
L5        EQU     5          D5        EQU     5
L6        EQU     6          D6        EQU     6
L7        EQU     7          D7        EQU     7
L8        EQU     8          D8        EQU     8
L9        EQU     9          D9        EQU     9
L10       EQU    10          D10       EQU    10
L12       EQU    12          D12       EQU    12
L15       EQU    15          D15       EQU    15
L16       EQU    16          D16       EQU    16
L20       EQU    20          D20       EQU    20
L24       EQU    24          D24       EQU    24
L31       EQU    31          D31       EQU    31
L32       EQU    32          D32       EQU    32
L40       EQU    40
L80       EQU    80
L400      EQU   400
L1024     EQU  1024
L2048     EQU  2048
L4096     EQU  4096
```

SYMBOLS USED IN DMKPTTPM IN SAVEWRK2 AND SAVER3

HIGH ORDER BIT OF SAVEWRK2 IS USED BY DMKPTTPM TO DETERMINE WHETHER A SIGP QUIESCE WAS ISSUED AND A SIGP RESUME MUST THEN BE ISSUED TO RESTART THE OTHER PROCESSOR.IT IS ALSO USED TO DETERMINE IF DMKPTT NEEDS TO RELEASE THE SYSTEM LOCK THAT WAS NEEDED TO ISSUE THE SIGP QUIESCE.

```
OPPRSTRT EQU   X'08'          MUST RESTART OTHER PROCESSOR
LOKSYS   EQU   X'01'          FLAG DMKPTT OBTAINED SYS LOCK
```

THE LOW ORDER BIT OF SAVER3 IS USED TO DETERMINE IF DMKPTTPM NEEDS TO EITHER RESTORE THE PAGCORE AFTER THE IPTE OR ISSUE A SIGP QUIESCE WHEN MOVING A SHARED PAGE

```
NORESTR  EQU   X'08'          FLAG TO NOT RESTORE PAGCORE
NOSIGP   EQU   X'04'          FLAG SO DMKPTTPM DOESNT DO SIGP
```

APPENDIX B. DATA AREAS AND CONTROL BLOCK REFERENCES

This appendix is a listing of CP control blocks and contains the following:

- Module references to data areas and control blocks.
- Information on how certain data areas or control blocks are created and released.

CP CONTROL BLOCK REFERENCES

ACCTBLOK

Built by: DMKHVD

Released by: DMKHVD, DMKUSO

Referenced by: DMKACO, DMKCKF, DMKHVD, DMKSPL

ACNTBLOK

Built by: DMKACO, DMKCKF, DMKHVD, DMKJRL, DMKWRM

Released by: DMKACO

Referenced by: DMKACO, DMKCKP, DMKHVD, DMKJRL, DMKWRM

ACTIBLOK

Built by: DMKSYS

Released by: N/A

Referenced by: DMKACO, DMKCKF

ALOCBLOK

Built by: DMKCPI, DMKVDC, DMKVDG

Released by: DMKCPI, DMKVDC, DMKVDG

Referenced by: DMKALO, DMKATS, DMKCKF, DMKCKT, DMKCKV, DMKCPX, DMKCPZ, DMKDAD, DMKDAS, DMKDAU, DMKDMP, DMKIDU, DMKMOO, DMKPAG, DMKPGM, DMKPGS, DMKPGT, DMKPGU, DMKPST, DMKPTR, DMKSEL, DMKSTP, DMKSTR, DMKSWA, DMKSWM, DMKTDK, DMKUSP, DMKVDG, DMKVDH, DMKWRM, DMKZTD

BFFENTRY

Built by: N/A

Released by: N/A

Referenced by: DMKCKF, DMKTRT, DMKTRU

BSCBLOK

Built by: DMKRGB

Released by: DMKRGA

Referenced by: DMKBSC, DMKNET, DMKRGA, DMKRGB, DMKRGC, DMKRGD

BUFFER

Built by: DMKCFM, DMKCPI, DMKERM, DMKGRF, DMKLNK, DMKLOG, DMKRGA, DMKRSP, DMKRGC, DMKRGD

Released by: DMKCFM, DMKCPI, DMKGRF, DMKLNK, DMKRGA, DMKRSP

Referenced by: DMKALG, DMKCDM, DMKCFG, DMKCFG, DMKCFG, DMKCFM, DMKCFO, DMKCFS, DMKCFU, DMKCFV, DMKCFW, DMKCFY, DMKCPT, DMKCSB, DMKCSO, DMKCSP, DMKCSQ, DMKCST, DMKCSU, DMKCSV, DMKEPS, DMKERM, DMKGRF, DMKGRT, DMKHVE, DMKLOH, DMKMIA, DMKMSG, DMKOPE, DMKPET, DMKQCO, DMKRGA, DMKRGC, DMKRST, DMKSCN, DMKSND, DMKTRP, DMKUDU, DMKVCP, DMKVCR, DMKVDC, DMKVMD

CACHBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKMNL

CCHREC

Built by: DMKCCH

Released by: DMKCCH, DMKIOE, DMKIOF

Referenced by: DMKCCH, DMKEIG, DMKSEV, DMKSIX

CCPARM

Built by: DMKNLD, DMKSNC

Released by: DMKNLD, DMKSNC

Referenced by: DMKNLD, DMKSNC

CCT

Built by: DMKIUC

Released by: DMKIUC

Referenced by: DMKDSP, DMKIUA, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL

CHXBLOK

Built by: DMKDIA

Released by: DMKVCA

Referenced by: DMKCFR, DMKCQG, DMKDIB, DMKVCA, DMKVCB, DMKVSI

CHYBLOK

Built by: DMKDIA

Released by: DMKVCA

Referenced by: DMKDIB, DMKVCA, DMKVCB

CKPBLOK

Built by: DMKRNH

Released by: DMKRNH

Referenced by: DMKRNH, DMKWRM

CNTSREC

Built by: N/A

Released by: N/A

Referenced by: DMKMNL

CONTASK

Built by: DMKCNS, DMKGRF, DMKQCN, DMKRGA, DMKRGB, DMKRNH

Released by: DMKGRA, DMKGRF, DMKQCN, DMKQCO, DMKQVM

Referenced by: DMKCFM, DMKCFQ, DMKCFR, DMKCNS, DMKDSP, DMKGRA, DMKGRC, DMKGRF, DMKGRH, DMKGRT, DMKMON, DMKNES, DMKQCN, DMKQCO, DMKQCP, DMKQVM, DMKRGA, DMKRGB, DMKRGC, DMKRGD, DMKRGE, DMKRNH, DMKTTY, DMKTTZ, DMKUSQ, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCV, DMKVCX

CORTABLE

Assembled in DMKSYS.

Released by: N/A

Referenced by: DMKATS, DMKBLD, DMKCCW, DMKCDB, DMKCDM, DMKCDS, DMKCFU, DMKCPP, DMKCPU, DMKCPY, DMKDGD, DMKDMP, DMKDMQ, DMKDRD, DMKFRT, DMKGRF, DMKHPU, DMKHVD, DMKHVE, DMKIDU, DMKMCC, DMKMCH, DMKMHV, DMKMNI, DMKMON, DMKPAH, DMKPGM, DMKPGS, DMKPMA, DMKPRW, DMKPSA, DMKPST, DMKPTR, DMKPTS, DMKPTT, DMKQCO, DMKQVM, DMKRPA, DMKSEG, DMKSEL, DMKSPM, DMKSTA, DMKSTR, DMKSWA, DMKSWM, DMKUDU, DMKUNT, DMKVCN, DMKVCF, DMKVFD, DMKVFE, DMKVFS, DMKVMA, DMKVMC, DMKVRR, DMKVRS

CPEXBLOK

Built by: DMKACO, DMKCDS, DMKCFM, DMKCPS, DMKCPV, DMKDIA, DMKGRF, DMKIOE, DMKIOF, DMKIOG, DMKIOS, DMKLOC, DMKMCC, DMKMCH, DMKMON, DMKPGT, DMKPTR, DMKQCN, DMKRGA, DMKRGB, DMKRNH, DMKRPA, DMKRSP, DMKSCH, DMKSPL, DMKSTK, DMKSVC, DMKTRQ, DMKUSO, DMKVCA, DMKVDC, DMKVDE, DMKVMA, DMKVMC

Released by: DMKCPS, DMKDSP, DMKIOF, DMKMON, DMKPTR

Referenced by: DMKACO, DMKACR, DMKALG, DMKATS, DMKCCH, DMKCCW, DMKCDS, DMKCFG, DMKCFM, DMKCFO, DMKCFQ, DMKCFR, DMKCNS, DMKCPB, DMKCPJ, DMKCPM, DMKCPO, DMPCPP, DMKCPS, DMKCPT, DMKCPU, DMKCPV, DMKCPW, DMKCPX, DMKCPZ, DMKCQT, DMKDAD, DMKDAS, DMKDAU, DMKDGD, DMKDIB, DMKDID, DMKDSB, DMKDSP, DMKERP, DMKEXT, DMKGIO, DMKGRC, DMKGRF, DMKHPU, DMKHVE, DMKIOE, DMKIOF, DMKIOQ, DMKIOS, DMKIOT, DMKIUA, DMKIUC, DMKIUE, DMKIUJ, DMKLNK, DMKLOC, DMKLOJ, DMKLOK, DMKMCC, DMKMCD, DMKMCT, DMKMHC, DMKMIA, DMKMID, DMKMNI, DMKMNL, DMKMON, DMKMPO, DMKMSG, DMKPAG, DMKPAH, DMKPGM, DMKPGS, DMKPGT, DMKPRG, DMKPRV, DMKPTR, DMKPTS, DMKPTT, DMKQCO, DMKQCP DMKQVM, DMKRGA, DMKRGB, DMKRNH, DMKRPA, DMKRSP, DMKRST, DMKSCH, DMKSEL, DMKSND, DMKSPK, DMKSPM, DMKSSS, DMKSSU, DMKSSV, DMKSTK, DMKSTP, DMKSTR, DMKSWA, DMKSWM, DMKTAP, DMKTAQ, DMKTPE, DMKTRD, DMKTRT, DMKUNT, DMKUSQ, DMKVAT, DMKVCA, DMPVCB, DMKVCP, DMKVCT, DMPVCX, DMKVDA, DMKVDC, DMKVDE, DMKVDR, DMKVDS, DMKVFD, DMKVFE, DMKVIO, DMKVMA, DMKVMC, DMKVSC, DMKVSJ, DMKVSP, DMKVSQ, DMKVST, DMKWAI, DMKZTD

DDRREC

Built by: DMKVER

Released by: DMKVER

Referenced by: DMKVER

DMPINREC

Built by: DMKDMP

Released by: DMKDMP

Referenced by: DMKDMP, DMKSAD, DMKVME

DMPKYREC

Built by: DMKDMP

Released by: DMKDMP

Referenced by: DMKDMP

ECBLOK

Built by: DMKBLD

Released by: DMKCFO, DMKCFS, DMKUSO

Referenced by: DMKACO, DMKBLD, DMKCDB, DMKCDM, DMKCDS, DMKCFF, DMKCFH, DMKCFP, DMKCFS, DMKCFV, DMKCKF, DMKCKM, DMKCQU, DMKDMP, DMKDSP, DMKEXT, DMKFPS, DMKHVC, DMKMOO, DMKMPO, DMKPMA, DMKPRG, DMKPRV, DMKPRW, DMKPSA, DMKQVM, DMKSCH, DMKSPM, DMKSVC, DMKTMR, DMKTRC, DMKTRD, DMKTRQ, DMKUSO, DMKVAT, DMKVAU, DMKVFR, DMKVIO, DMKVME, DMKVRR, DMKVRS

ERRBLOK

Built by: DMKIOE

Released by: DMKIOF

Referenced by: DMKERP, DMKIOE, DMKIOF, DMKIOJ

FORMBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKCKP, DMKCKV, DMKCSP, DMKCSU

HALF1ENT

Built by: N/A

Released by: N/A

Referenced by: DMKTRP, DMKTRR, DMKTRT

HCBLOK

Built by: DMKCPU (CP issued DIAG X'80')
DMKMHV (V=R virtual machine issued DIAG X'80')

Released by: DMKMHC

Referenced by: DMKCPU, DMKMHC, DMKMHV, DMKPST, DMKVFC

HLDAREA

Built by: DMKTCS

Released by: DMKTCS

Referenced by: DMKTCS, DMKTCT

INTBLK

Built by: N/A

Released by: N/A

Referenced by: DMKTRR, DMKTRT

IOBLOK

Built by: DMKACO, DMKCCW, DMKCFP, DMKCNS, DMKCPB, DMKCPI, DMKCPS, DMKCSO, DMKCSP, DMKCSU, DMKDGD, DMKDIA, DMKGIO, DMKGRF, DMKHPS, DMKHVC, DMKIOS, DMKNLD, DMKRGA, DMKRGB, DMKSPL, DMKTDK, DMKVCA, DMKVDC, DMKVDD,

DMKVDE, DMKVDR, DMKVIO

Released by: DMKCFP, DMKCNS, DMKCPB, DMKCPI, DMKCPS, DMKCSO, DMKDAS, DMKDGD, DMKDIA, DMKGIO, DMKGRF, DMKHPS, DMKHVC, DMKIOS, DMKMON, DMKNLD, DMKUSP DMKPAG, DMKRGA, DMKRGB, DMKRNH, DMKRSP, DMKSEP, DMKTDK, DMKVCA, DMKVDC, DMKVDD, DMKVDE, DMKVIO

Referenced by: DMKACO, DMKACR, DMKACS, DMKBIO, DMKBSC, DMKCAC, DMKCCD, DMKCCF, DMKCCH, DMKCCO, DMKCCS, DMKCCW, DMKCFQ, DMKCFR, DMKCKD, DMKCNS, DMKCNT, DMKCPB, DMKCPM, DMKCPN, DMKCPP, DMKCPS, DMKCPT, DMKCPW, DMKCPZ, DMKCQT, DMKCSB, DMKCSC, DMKCSF, DMKCSO, DMKCSR, DMKCSW, DMKCSX, DMKDAD, DMKDAS, DMKDAU, DMKDEX, DMKDGD, DMKDGF, DMKDIA, DMKDIB, DMKDID, DMKDIF, DMKDSB, DMKDSP, DMKGIO, DMKGRC, DMKGRD, DMKGRE, DMKGRF, DMKGRG, DMKGRH, DMKGRI, DMKHPS, DMKHPT, DMKHPU, DMKHVC, DMKIOE, DMKIOH, DMKIOQ, DMKIOS, DMKIOT, DMKISM, DMKLOH, DMKMCC, DMKMNI, DMKMNL, DMKMON, DMKMSW, DMKNLD, DMKNLE, DMKOPE, DMKPAG, DMKPAH, DMKQVM, DMKRGA, DMKRGB, DMKRGC, DMKRGD, DMKRGE, DMKRNH, DMKRSE, DMKRSF, DMKRSP, DMKRSQ, DMKRST, DMKSEP, DMKSPK, DMKSPL, DMKSPM, DMKSPS, DMKSPT, DMKSSU, DMKSTK, DMKTAP, DMKTAQ, DMKTCS, DMKTCT, DMKTPE, DMKTRC, DMKTRD, DMKTRK, DMKTTX, DMKTTY, DMKUDR, DMKUNT, DMKUSP, DMKVCA, DMKVCB, DMKVCN, DMKVCP, DMKVDA, DMKVDC, DMKVDD, DMKVDE, DMKVDG, DMKVDR, DMKVDT, DMKVIO, DMKVRR, DMKVRS, DMKVSC, DMKVSI, DMKVSJ, DMKWAI, DMKZTD

IOERBLOK

Built by: DMKBSC, DMKCCH, DMKDAS, DMKDIA, DMKDIB, DMKHPS, DMKIOE, DMKIOS, DMKRSE, DMKTAP, DMKVCA

Released by: DMKBSC, DMKCCH, DMKCCW, DMKCFP, DMKCNS, DMKCPS, DMKDAS, DMKDGD, DMKDIA, DMKDIB, DMKGIO, DMKGRF, DMKHPS, DMKIOE, DMKIOS, DMKMON, DMKNLD, DMKRGA, DMKRGB, DMKRNH, DMKRSE, DMKRSR, DMKTAP, DMKVIO

Referenced by: DMKACS, DMKBSC, DMKCCH, DMKCCS, DMKCCW, DMKCFQ, DMKCFR, DMKCNS, DMKCPN, DMKCPS, DMKCPW, DMKCPZ, DMKCQT, DMKDAD, DMKDAS, DMKDAU, DMKDGD, DMKDGF, DMKDIA, DMKDIB, DMKDID, DMKDSB, DMKDSP, DMKEIG, DMKGIO, DMKGRF, DMKGRI, DMKHPS, DMKHPT, DMKHPU, DMKIOE, DMKIOF, DMKIOJ, DMKIOS, DMKIOT, DMKMNL, DMKMSW, DMKNLD, DMKNLE, DMKQVM, DMKRGA, DMKRGB, DMKRGE, DMKRNH, DMKRSE, DMKRSF, DMKRSP, DMKSEV, DMKSIX, DMKTAP, DMKTAQ, DMKTPE, DMKTRK, DMKUNT, DMKVCA, DMKVCB, DMKVCN, DMKVDC, DMKVDE, DMKVIO, DMKVRR, DMKVSC, DMKVSI

IPARML

Built by: DMKVCT

Released by: DMKVCT

Referenced by: DMKCPI, DMKVCT

IRMBLOK

Built by: DMKCFO, DMKCFS

Released by: DMKCFU, DMKIOE

Referenced by: DMKCFU, DMKIOE

IUCVBLOK

Built by: DMKIUC

Released by: DMKIUC

Referenced by: DMKDSP, DMKIUA, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL

IUSAVE

Built by: DMKIUA

Released by: DMKIUA

Referenced by: DMKIUA, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL

IUTRACE

Built by: N/A

Released by: N/A

Referenced by: DMKIUA, DMKIUC, DMKIUE, DMKIUG

IXBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKIUA, DMKIUC, DMKIUJ, DMKLOH, DMKMSG, DMKVCP, DMKVCV, DMKVCX

IXEXBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKIUA, DMKIUC, DMKIUJ, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCV

JPSCBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKLNK, DMKLNM, DMKLOG

LOCKBLOK

Built by: DMKLOC

Released by: DMKLOC

Referenced by: DMKLOC

MCHAREA

Built by: DMKIOG

Released by: N/A

Referenced by: DMKACR, DMKCCH, DMKCFU, DMKCPO, DMKCPP, DMKCPU, DMKDID, DMLHVC, DMKIOG, DMKIOH, DMKMCH, DMKMCI, DMKMHC, DMKMHV, DMKPRV, DMKVAT, DMKVAU

MCRECORD

Built by: DMKMCH

Released by: N/A

Referenced by: DMKMCH

MDRREC

Built by: DMKVER

Released by: DMKVER

Referenced by: DMKVER

MICBLOK

Built by: DMKCFS, DMKLOG

Released by: DMKCFS, DMKLOG, DMKUSO

Referenced by: DMKAPI, DMKBLD, DMKCDS, DMKCFF, DMKCFG, DMKCFO, DMKCFP, DMKCFS, DMKCFY, DMKCPB, DMKCPI, DMKCPP, DMKCPU, DMKDSP, DMKFPS, DMKIOT, DMKIUE, DMKLOJ, DMKMCH, DMKPGS, DMKPMA, DMKPRV, DMKPTR, DMKPTS, DMKQVM, DMKRPA, DMKSAD, DMKSCH, DMKSEL, DMKSPM, DMKSTR, DMKSWA, DMKTMR, DMKTRA, DMKTRQ, DMKVAT, DMKVRR

MIHREC

Built by: DMKVER, DMKIOE

Released by: DMKVER, DMKIOE

Referenced by: DMKIOE, DMKVER

MNCHLIST

Built by: N/A

Released by: N/A

Referenced by: DMKENT, DMKMOO

MNDEVLST

Built by: N/A

Released by: N/A

Referenced by: DMKENT, DMKMNI, DMKMON, DMKMOO

MNHDR

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN000

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN001

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN002

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN003

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN004

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN005

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN006

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN007

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN097

Built by: DMKMNI

Released by: DMKMON

Referenced by: DMKMNI

MN098

Built by: DMKMNI

Released by: DMKMON

Referenced by: DMKMNI

MN099

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN10X

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN20X

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN300

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN30X

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN305

Built by: DMKMON

Released by DMKMON

Referenced by: DMKMON

MN400

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN410

Built by: DMKMOO

Released by: DMKMOO

Referenced by: DMKMOO

MN500

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN600DEV

Built by: DMKMNI, DMKMOO

Released by: DMKMOO

Referenced by: DMKMNI, DMKMOO

MN600HDR

Built by: DMKMOO, DMKMNI

Released by: DMKMOO

Referenced by: DMKMNI, DMKMOO

MN602DEV

Built by: N/A

Released by: N/A

Referenced by: DMKENT

MN602HDR

Built by: N/A

Released by: N/A

Referenced by: DMKENT

MN603CH

Built by: N/A

Released by: N/A

Referenced by: DMKENT

MN700

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN802CTR

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MN802DEV

Built by: DMKMON

Released by: DMKMON

Referenced by: DMKMON

MONCOM

Built by: DMKMCC

Released by: DMKMON

Referenced by: DMKCPS, DMKDMQ, DMKENT, DMKMCC, DMKMCD, DMKMIA, DMKMNI, DMKMNJ, DMKMON, DMKMOO

MSFBLOK

Built by: DMKCPU (CP issued DIAG X'80') or by V=R virtual machine

Released by: DMKCPU (CP issued DIAG X'80') or by V=R virtual machine

Referenced by: DMKCPU, DMKMHC, DMKMHV

MSGBLOK

Built by: DMKIUE

Released by: DMKIUA

Referenced by: DMKIUA, DMKIUE, DMKIUG, DMKIUJ, DMKIUL

MSSCOM

Built by: N/A

Released by: N/A

Referenced by: DMKCFG, DMKCPB, DMKDGD, DMKDSB, DMKHVD, DMKLOJ, DMKLNK,

DMKLNM, DMKSSS, DMKSSU, DMKSSV, DMKVDA, DMKVSJ

NAMENTRY

Built by: N/A

Released by: N/A

Referenced by: DMKTRP, DMKTRR

NCPTBL

Built by: DMKSNT

Released by: N/A

Referenced by: DMKNLD, DMKSNC

NICBLOK

Built by: DMKNLD

Released by: DMKNLD

Referenced by: DMKACO, DMKBLD, DMKCFR, DMKCFT, DMKCKD, DMKCKF, DMKCPJ, DMKCQG, DMKCQT, DMKCQU, DMKDEF, DMKDIA, DMKDIB, DMKEXT, DMKGRC, DMKGRT, DMKHVD, DMKHVE, DMKLOG, DMKLOH, DMKNEA, DMKNES, DMKNET, DMKNLD, DMKQCN, DMKQCO, DMKRGA, DMKRGB, DMKRGC, DMKRGD, DMKRNH, DMKSCN, DMKVCN, DMKVDR, DMKWRM

NPRTBL

Built by: N/A

Released by: N/A

Referenced by: DMKCKV, DMKCPS, DMKCSO, DMKHVD, DMKRSP, DMKTCS, DMKWRM

OBRRECN (Long OBR)

Built by: DMKIOF

Released by: DMKIOF

Referenced by: DMKIOC, DMKIOE, DMKIOJ, DMKVER

ORDBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKCPI, DMKVDG

OWNDLIST

Assembled into DMKSYS

Referenced by: DMKACR, DMKALO, DMKCFS, DMKCFU, DMKCKF, DMKCKM, DMKCKN, DMKCKV, DMKCPI, DMKCPJ, DMKCPO, DMKCQY, DMKDRD, DMKIDU, DMKMNT, DMKMON, DMKPAG, DMKPAH, DMKPGU, DMKSCN, DMKSPK, DMKSPS, DMKUDR, DMKVDA, DMKVDG, DMKWRM

O2ENTRY

Built by: N/A

Released by: N/A

Referenced by: DMKTRP, DMKTRR

O3ENTRY

Built by: N/A

Released by: N/A

Referenced by: DMKTRP, DMKTRR

O4ENTRY

Built by: N/A

Released by: N/A

Referenced by: DMKTRR

PAGTABLE

Built by: DMKBLD

Released by: DMKBLD, DMKPGS

Referenced by: DMKATS, DMKBLD, DMKCFF, DMKCFG, DMKCPP, DMKCPU, DMKPGM, DMKPGS, DMKPTR, DMKPTS, DMKSEL, DMKSTR, DMKVAT

PDENT

Built by: DMKIUG

Released by: DMKIUC

Referenced by: DMKIUA, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL

PERBLOK

Built by: DMKPEI

Referenced by: DMKDSP, DMKPEI, DMKPEL, DMKPEN, DMKPEQ, DMKPER, DMKPET, DMKPRG, DMKPRV, DMKPRW, DMKTMR

PESBLOK

Built by: DMKPEN

Released by: DMKPEN

Referenced by: DMKPEN, DMKPEQ

PEXBLOK

Built by: DMKPEI, DMKPEL, DMKPEN

Released by: DMKPEL, DMKPEN

Referenced by: DMKPEI, DMKPEL, DMKPEN, DMKPEQ, DMKPER, DMKPET

PFKTABLE

Built by: N/A

Released by: N/A

Referenced by: DMKCFY, DMKCQY, DMKGRF, DMKGRT, DMKRGC, DMKTTY, DMKUSQ, DMKVCP

PFTABS

Built by: N/A

Released by: N/A

Referenced by: DMKCQY, DMKGRT, DMKVCP

PGBLOK

Built by: DMKVAT

Released by: DMKCFP, DMKDSP

Referenced by: DMKCFP, DMKDSP, DMKVAT

PSA

Assembled as part of DMKSYS; part of CP nucleus.

Referenced by: DMKACO, DMKACR, DMKACS, DMKALG, DMKALO, DMKAPI, DMKAPS, DMKAPT, DMKAPU, DMKAPV, DMKAPW, DMKAPX, DMKAPY, DMKAPZ, DMKATS, DMKBIO, DMKBLD, DMKBSC, DMKCAC, DMKCAO, DMKCCD, DMKCCF, DMKCCH, DMKCCO, DMKCCS, DMKCCT, DMKCCW, DMKCDB, DMKCDM, DMKCDS, DMKCFC, DMKCFD, DMKCFF, DMKCFG, DMKCFH, DMKCFJ, DMKCFM, DMKCFO, DMKCFP, DMKCFQ, DMKCFR, DMKCFS, DMKCFT, DMKCFU, DMKCFV, DMKCFW, DMKCFY, DMKCKD, DMKCKF, DMKCKH, DMKCKM, DMKCKN,

DMKCKP, DMKCKR, DMKCKS, DMKCKT, DMKCKV, DMKCKW, DMKCLK, DMKCNS, DMKCNT,
DMKCPB, DMKCPI, DMKCPJ, DMKCPM, DMKCPN, DMKCPO, DMKCPP, DMKCPS, DMKCPT,
DMKCPU, DMKCPV, DMKCPW, DMKCPX, DMKCPY, DMKCPZ, DMKCQC, DMKCQG, DMKCQH,
DMKCQI, DMKCQP, DMKCQQ, DMKCQR, DMKCQS, DMKCQT, DMKCQU, DMKCQY, DMKCRM,
DMKCSB, DMKCSC, DMKCSF, DMKCSO, DMKCSP, DMKCSQ, DMKCSR, DMKCST, DMKCSU,
DMKCSV, DMKCSW, DMKCSX, DMKCSY, DMKCVT, DMKCVU, DMKDAD, DMKDAS, DMKDAU,
DMKDEF, DMKDEG, DMKDEI, DMKDEX, DMKDGD, DMKDGF, DMKDIA, DMKDIB, DMKDID,
DMKDIF, DMKDMP, DMKDMQ, DMKDRD, DMKDSB, DMKDSP, DMKEIG, DMKENT, DMKEPS,
DMKERM, DMKERP, DMKEXT, DMKFMT, DMKFPS, DMKFRE, DMKFRT, DMKGIO, DMKGRA,
DMKGRC, DMKGRD, DMKGRE, DMKGRF, DMKGRG, DMKGRH, DMKGRI, DMKGRT, DMKHPS,
DMKHPT, DMKHPU, DMKHVC, DMKHVD, DMKHVE, DMKHVF, DMKIDR, DMKIDU, DMKIOC,
DMKIOE, DMKIOF, DMKIOG, DMKIOH, DMKIOJ, DMKIOQ, DMKIOS, DMKIOT, DMKISM,
DMKIUA, DMKIUB, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL, DMKIUN, DMKIUP,
DMKIUS, DMKJRL, DMKLNK, DMKLNM, DMKLOC, DMKLOG, DMKLOH, DMKLOJ, DMKLOK,
DMKLOM, DMKMCC, DMKMCD, DMKMCH, DMKMCI, DMKMCT, DMKMHC, DMKMHV, DMKMIA,
DMKMID, DMKMNI, DMKMNJ, DMKMNL, DMKMNT, DMKMON, DMKMOO, DMKMPO, DMKMSG,
DMKMSW, DMKNEA, DMKNES, DMKNET, DMKNLD, DMKNLE, DMKOPE, DMKOPR, DMKPAG,
DMKPAH, DMKPEI, DMKPEL, DMKPEN, DMKPEQ, DMKPER, DMKPET, DMKPGM, DMKPGS,
DMKPGT, DMKPGU, DMKPMA, DMKPRG, DMKPRV, DMKPRW, DMKPSA, DMKPST, DMKPTR,
DMKPTS, DMKPTT, DMKQCN, DMKQCO, DMKQCP, DMKQCQ, DMKQVM, DMKREI, DMKRET,
DMKRGA, DMKRGB, DMKRGC, DMKRGD, DMKRGE, DMKRNH, DMKRPA, DMKRPD, DMKRSE,
DMKRSF, DMKRSP, DMKRSQ, DMKRST, DMKSAD, DMKSAV, DMKSBL, DMKSCH, DMKSCN,
DMKSCO, DMKSEG, DMKSEL, DMKSEP, DMKSEV, DMKSFB, DMKSIX, DMKSNC, DMKSND,
DMKSPK, DMKSPL, DMKSPM, DMKSPR, DMKSPS, DMKSPT, DMKSRM, DMKSSP, DMKSSS,
DMKSST, DMKSSU, DMKSSV, DMKSTA, DMKSTK, DMKSTP, DMKSTR, DMKSVC, DMKSVD,
DMKSWA, DMKSWM, DMKTAP, DMKTAQ, DMKTCS, DMKTCT, DMKTDK, DMKTHI, DMKTMR,
DMKTOD, DMKTPE, DMKTRA, DMKTRC, DMKTRD, DMKTRK, DMKTRM, DMKTRP, DMKTRQ,
DMKTRT, DMKTRU, DMKTRX, DMKTTX, DMKTTY, DMKUDR, DMKUDU, DMKUNT, DMKURS,
DMKUSP, DMKUSQ, DMKVAT, DMKVAU, DMKVBM, DMKVCA, DMKVCB, DMKVCH, DMKVCN,
DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCU, DMKVCV, DMKVCW, DMKVCX,
DMKVDA, DMKVDB, DMKVDC, DMKVDD, DMKVDE, DMKVDF, DMKVDG, DMKVDH, DMKVDR,
DMKVDS, DMKVDT, DMKVER, DMKVFC, DMKVFD, DMKVFE, DMKVFR, DMKVFS, DMKVIO,
DMKVMA, DMKVMC, DMKVMD, DMKVME, DMKVMG, DMKVMI, DMKVRR, DMKVRS, DMKVSC,
DMKVSD, DMKVSE, DMKVSF, DMKVSG, DMKVSI, DMKVSJ, DMKVSP, DMKVSQ, DMKVSR,
DMKVST, DMKVSU, DMKVSV, DMKVSW, DMKVSX, DMKWAI, DMKWRM, DMKWRN, DMKXAB,
DMKXAD, DMKXST, DMKZTD.

PTRLIST

Built by: N/A

Released by: N/A

Referenced by: DMKMNL

PWDIBLOK

Built by: DMKJRL

Released by: DMKJRL

Referenced by: DMKGRT, DMKJRL

PXA

Assembled as part of DMKPXA; part of CP nucleus for an AP/MP system

Referenced by: DMKAPI, DMKCPP, DMKDSP, DMKFRE, DMKFRT, DMKMOO, DMKPAG, DMKPGM, DMKPTR, DMKSCH, DMKSTK, DMKSWA, DMKSWM, DMKWAI

RCHBLOK

Assembled into CP nucleus module DMKRIO

Released by: N/A

Referenced by: DMKACR, DMKACS, DMKCCH, DMKCFP, DMKCFU, DMKCKD, DMKCKH, DMKCKM, DMKCKN, DMKCNS, DMKCPM, DMKCPN, DMKCPO, DMKCPP, DMKCPS, DMKCPT, DMKCPV, DMKCPW, DMKCPZ, DMKCQP, DMKCQQ, DMKDID, DMKDIF, DMKDMQ, DMKDSB, DMKENT, DMKEXT, DMKIOG, DMKIOQ, DMKIOS, DMKIOT, DMKMNI, DMKMNL, DMKMNT, DMKMON, DMKMOO, DMKNES, DMKPRV, DMKQVM, DMKSCN, DMKSCO, DMKSSP, DMKSSS, DMKURS, DMKVCH, DMKVDA, DMKVDT.

RCUBLOK

Assembled into CP nucleus module DMKRIO.

Released by: N/A

Referenced by: DMKACR, DMKACS, DMKCAC, DMKCAO, DMKCCH, DMKCCO, DMKCFQ, DMKCFU, DMKCKD, DMKCKH, DMKCKM, DMKCKN, DMKCNS, DMKCPM, DMKCPN, DMKCPO, DMKCPP, DMKCPS, DMKCPT, DMKCPV, DMKCPW, DMKCPZ, DMKCQP, DMKCQQ, DMKDIB, DMKDID, DMKDIF, DMKDMQ, DMKDSB, DMKENT, DMKGRG, DMKIOC, DMKIOQ, DMKIOS, DMKIOT, DMKMNI, DMKMNL, DMKMNT, DMKMON, DMKMOO, DMKNES, DMKNLD, DMKPRV, DMKQVM, DMKSCN, DMKSCO, DMKSSP, DMKSSS, DMKURS, DMKVCH, DMKVDA, DMKVDE, DMKVDS, DMKVDT, DMKVRR, DMKVRS, DMKVSC, DMKVSJ.

RCWTASK

Built by: DMKCCW

Released by: DMKCCW, DMKUNT

Referenced by: DMKCCW, DMKCFR, DMKCPB, DMKDAD, DMKDEX, DMKHVC, DMKIOS, DMKISM, DMKTRD, DMKTRK, DMKUNT, DMKVDR, DMKVIO

RDCBLOK

Built by: DMKCPI, DMKCPT

Released by: N/A

Referenced by: DMKALO, DMKBIO, DMKCCW, DMKCKM, DMKCPW, DMKDAU, DMKDMP, DMKDSB, DMKHVE, DMKIOC, DMKIOJ, DMKLNK, DMKMNT, DMKPAG, DMKPAH, DMKPGU, DMKPMA, DMKRSP, DMKRSQ, DMKSPK, DMKTDK, DMKUNT, DMKVDG, DMKVDS, DMKVSC, DMKVSX, DMKZTD

RDEVBLOK

Built by: Assembled into CP nucleus module DMKRIO (real device). Built by DMKHPS for logical device.

Released by: DMKHPS

Referenced by: DMKACO, DMKACR, DMKACS, DMKALO, DMKATS, DMKBIO, DMKBLD, DMKBSC, DMKCAC, DMKCAO, DMKCCD, DMKCCF, DMKCCH, DMKCCO, DMKCCS, DMKCCT, DMKCCW, DMKCFC, DMKCFG, DMKCFH, DMKCFM, DMKCFQ, DMKCFR, DMKCFS, DMKCFT, DMKCFU, DMKCFW, DMKCFY, DMKCKD, DMKCKF, DMKCKH, DMKCKM, DMKCKN, DMKCKR,

DMKCKS, DMKCKT, DMKCKV, DMKCNS, DMKCNT, DMKCPB, DMKCPI, DMKCPJ, DMKCPM, DMKCPN, DMKCPO, DMKCPP, DMKCPS, DMKCPT, DMKCPV, DMKCPW, DMKCPX, DMKCPZ, DMKCQG, DMKCQI, DMKCQP, DMKCQQ, DMKCQR, DMKCQS, DMKCQT, DMKCQU, DMKCQY, DMKCSB, DMKCSC, DMKCSF, DMKCSO, DMKDAD, DMKDAS, DMKDAU, DMKDEF, DMKDEI, DMKDGD, DMKDGF, DMKDIA, DMKDIB, DMKDID, DMKDIF, DMKDMP, DMKDMQ, DMKDRD, DMKDSB, DMKDSP, DMKENT, DMKEPS, DMKERM, DMKEXT, DMKGIO, DMKGRC, DMKGRD, DMKGRE, DMKGRF, DMKGRG, DMKGRH, DMKGRI, DMKGRT, DMKHPS, DMKHPT, DMKHPU, DMKHVC, DMKHVD, DMKHVE, DMKHVF, DMKIDU, DMKIOC, DMKIOE, DMKIOF, DMKIOG, DMKIOJ, DMKIOQ, DMKIOS, DMKIOT, DMKJRL, DMKLNK, DMKLOG, DMKLOH, DMKLOJ, DMKLOM, DMKMCC, DMKMNI, DMKMNL, DMKMNT, DMKMON, DMKMOO, DMKMSW, DMKNEA, DMKNES, DMKNET, DMKNLD, DMKNLE, DMKOPE, DMKOPR, DMKPAG, DMKPAH, DMKPGT, DMKPGU, DMKPMA, DMKPRV, DMKQCN, DMKQCO, DMKQCP, DMKQCQ, DMKQVM, DMKRGA, DMKRGB, DMKRGC, DMKRGE, DMKRNH, DMKRSE, DMKRSF, DMKRSP, DMKRSQ, DMKRST, DMKSCN, DMKSCO, DMKSEG, DMKSEP, DMKSNC, DMKSPK, DMKSPL, DMKSPS, DMKSPT, DMKSSP, DMKSSS, DMKSST, DMKSSU, DMKSSV, DMKTAP, DMKTAQ, DMKTCS, DMKTCT, DMKTDK, DMKTPE, DMKTRD, DMKTRK, DMKTRM, DMKTTX, DMKTTY, DMKUDR, DMKUNT, DMKURS, DMKUSQ, DMKVCH, DMKVCN, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCU, DMKVCV, DMKVCW, DMKVCX, DMKVDA, DMKVDB, DMKVDC, DMKVDD, DMKVDE, DMKVDF, DMKVDG, DMKVDH, DMKVDR, DMKVDS, DMKVDT, DMKVER, DMKVIO, DMKVRR, DMKVRS, DMKVSC, DMKVSI, DMKVSJ, DMKVSX DMKWRM, DMKWRN, DMKZTD.

RECBLOK

Built by: DMKCKS, DMKCPI, DMKPGT, DMKRSP, DMKVDG, DMKVSP, DMKWRM

Released by: DMKPGU, DMKSPL, DMKUSO

Referenced by: DMKCKF, DMKCKM, DMKCKT, DMKCKV, DMKDMP, DMKIDU, DMKMOO, DMKPGT, DMKPGU, DMKPST, DMKRSP, DMKRSQ, DMKSPK, DMKUSP, DMKVDG, DMKVDH, DMKVSX, DMKWRM

RECPAG

Built by: DMKIOF, DMKIOG

Released by: DMKIOF, DMKIOG

Referenced by: DMKERP, DMKIOF, DMKIOG, DMKIOH, DMKIOJ

RETBUF

Built by: N/A

Released by: N/A

Referenced by: DMKCFY, DMKQCP, DMKRET

RHTBLOK

Referenced by: DMKCKR, DMKCKT, DMKCKV, DMKCKW, DMKVSD, DMKVSE, DMKVSF, DMKVSG, DMKWRM, DMKWRN

RHXTABLE

Referenced by: DMKCKW, DMKWRM

Restricted Materials of IBM
Licensed Materials - Property of IBM

RSPLCTL

Built by: DMKRSP

Released by: DMKRSP

Referenced by: DMKCKH, DMKCSF, DMKCSO, DMKRSP, DMKRSQ, DMKRST, DMKSPL, DMKTCS, DMKTCT, DMKURS

RSPXBLOK

Built by: DMKCPI

Released by: N/A

Referenced by: DMKCKH, DMKCKS, DMKCKV, DMKCPW, DMKCSB, DMKCSF, DMKCSO, DMKMNT, DMKRSP, DMKSEP, DMKTCS, DMKTCT, DMKURS, DMKWRM

SAVEAREA

Built by: DMKCPI, DMKSVC

Released by: DMKSVC

Referenced by: DMKACO, DMKALG, DMKALO, DMKAPI, DMKATS, DMKBIO, DMKBLD, DMKBSC, DMKCAC, DMKCAO, DMKCCH, DMKCCW, DMKCDB, DMKCDM, DMKCDS, DMKCFC, DMKCFD, DMKCFF, DMKCFG, DMKCFH, DMKCFJ, DMKCFM, DMKCFO, DMKCFP, DMKCFQ, DMKCFR, DMKCFS, DMKCFT, DMKCFU, DMKCFV, DMKCFW, DMKCFY, DMKCKS, DMKCKT, DMKCKV, DMKCLK, DMKCNS, DMKCPB, DMKCPJ, DMKCPM, DMKCPO, DMKCPP, DMKCPS, DMKCPT, DMKCPU, DMKCPV, DMKCPW, DMKCPX, DMKCPY, DMKCPZ, DMKCQG, DMKCQH, DMKCQP, DMKCQQ, DMKCQR, DMKCQS, DMKCQT, DMKCQY, DMKCSB, DMKCSC, DMKCSF, DMKCSO, DMKCSP, DMKCSQ, DMKCST, DMKCSU, DMKCSV, DMKCVU, DMKDAD, DMKDAS, DMKDAU, DMKDEF, DMKDEG, DMKDEI, DMKDEX, DMKDGD, DMKDIA, DMKDIB, DMKDRD, DMKDSB, DMKEIG, DMKENT, DMKEPS, DMKERM, DMKGIO, DMKGRA, DMKGRF, DMKGRT, DMKHPS, DMKHPU, DMKHVD, DMKHVE, DMKIDU, DMKIOE, DMKIOF, DMKIOG, DMKIOH, DMKIOQ, DMKIOS, DMKIOT, DMKISM, DMKIUA, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL, DMKJRL, DMKLNK, DMKLNM, DMKLOC, DMKLOG, DMKLOH, DMKLOJ, DMKLOM, DMKMCC, DMKMCD, DMKMCI, DMKMHC, DMKMHV, DMKMIA, DMKMID, DMKMNI, DMKMNJ, DMKMNL, DMKMNT, DMKMON, DMKMOO, DMKMSG, DMKMSW, DMKNEA, DMKNEM, DMKNES, DMKNET, DMKNLD, DMKNLE, DMKOPE, DMKPEI, DMKPEL, DMKPEN, DMKPEQ, DMKPER, DMKPET, DMKPGM, DMKPGS, DMKPMA, DMKPST, DMKPTR, DMKPTS, DMKPTT, DMKQCN, DMKQCO, DMKQCP, DMKQVM, DMKRGA, DMKRGB, DMKRGC, DMKRNH, DMKRPA, DMKRPD, DMKRPW, DMKRSE, DMKRSF, DMKRSP, DMKRSQ, DMKRST, DMKSBL, DMKSCO, DMKSEG, DMKSEL, DMKSEP, DMKSEV, DMKSIX, DMKSNC, DMKSND, DMKSPK, DMKSPL, DMKSPM, DMKSPS, DMKSPT, DMKSRM, DMKSSP, DMKSSS, DMKSST, DMKSSU, DMKSSV, DMKSTP, DMKSTR, DMKSVC, DMKSWA, DMKSWM, DMKTAP, DMKTAQ, DMKTCS, DMKTCT, DMKTDK, DMKTHI, DMKTOD, DMKTPE, DMKTRA, DMKTRC, DMKTRD, DMKTRK, DMKTRM, DMKTRP, DMKTRQ, DMKTRT, DMKTRU, DMKTTY, DMKUDR, DMKUDU, DMKUNT, DMKURS, DMKUSO, DMKUSP, DMKUSQ, DMKVAT, DMKVAU, DMKVCA, DMKVCB, DMKVCH, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCV, DMKVCX, DMKVDA, DMKVDB, DMKVDC, DMKVDD, DMKVDE, DMKVDG, DMKVDH, DMKVDR, DMKVDS, DMKVDT, DMKVER, DMKVFC, DMKVFD, DMKVFE, DMKVFI, DMKVFR, DMKVFS, DMKVMA, DMKVMC, DMKVMD, DMKVDE, DMKVMG, DMKVRR, DMKVSC, DMKVSP, DMKVSQ, DMKVSR, DMKVST, DMKVSU, DMKVSW, DMKVSX, DMKWRM, DMKWRN, DMKZTD

SAVTABLE

Built by: Assembled into CP pageable module DMKSNT

Released by: N/A

Referenced by: DMKCFF, DMKCFH, DMKCFS, DMKCKM, DMKCQY

SCBLOK

Built by: DMKLOG

Released by: DMKUSO

Referenced by: DMKACO, DMKBLD, DMKLOG, DMKLOJ, DMKMON, DMKMOO, DMKPGM, DMKPTR, DMKPTS, DMKSCH, DMKSEL, DMKSTP, DMKSWA, DMKSWM, DMKTHI,

SCCBLOK

Built by: N.A.

Released by: N.A.

Referenced by: DMKMHC, DMKMHV, DMKPST, DMKVFC, DMKVFI,

SDRBLOK

Built by: DMKIOF

Released by: DMKIOE

Referenced by: DMKIOE, DMKIOF, DMKIOJ

SEGTABLE

Built by: DMKBLD

Released by: DMKBLD

Referenced by: DMKATS, DMKBLD, DMKCFG, DMKCKM, DMKPSA, DMKVAT, DMKVAU

SELECT

Built by: N/A

Released by: N/A

Referenced by: DMKGRF, DMKPRT, DMKTRR, DMKTRT

SELENTRY

Built by: N/A

Released by: N/A

Referenced by: DMKTRP, DMKTRR, DMKTRT

SFBLOK

Built by: DMKCKS, DMKNLD, DMKSPL, DMKWRM

Released by: DMKCKS, DMKRSP, DMKSPL, DMKUSO

Referenced by: DMKACO, DMKAPS, DMKAPT, DMKAPU, DMKAPV, DMKAPW, DMKCFU, DMKCKF, DMKCKH, DMKCKR, DMKCKS, DMKCKT, DMKCKV, DMKCQH, DMKCQI, DMKCQR, DMKCSF, DMKCSO, DMKCSQ, DMKCSR, DMKCST, DMKCSU, DMKCSV, DMKCSW, DMKCSX, DMKCSY, DMKDMP, DMKDRD, DMKHVF, DMKIDU, DMKMIA, DMKMNJ, DMKNLE, DMKRSE, DMKRSP, DMKRSQ, DMKRST, DMKSAD, DMKSEP, DMKSFB, DMKSPK, DMKSPL, DMKSPS, DMKSPT, DMKTCS, DMKTCT, DMKTRP, DMKTRR, DMKTRT, DMKTRU, DMKURS, DMKUSP, DMKVMD, DMKVME, DMKVSD, DMKVSE, DMKVSF, DMKVSG, DMKVSP, DMKVSQ, DMKVST, DMKVSU, DMKVSW, DMKVSX, DMKWRM, DMKWRN, DMKXAB, DMKXAD.

SHQBLOK

Built by: DMKCSP, DMKWRM

Released by: DMKCSP

Referenced by: DMKCKS, DMKCKT, DMKCQR, DMKCSQ, DMKSPL, DMKWRM, DMKWRN

SHRTABLE

Built by: DMKCFG

Released by: DMKPGS, DMKVMA

Referenced by: DMKATS, DMKCCW, DMKCFF, DMKCFG, DMKCFH, DMKCPP, DMKCPU, DMKPGS, DMKPRV, DMKPRW, DMKPSA, DMKPTR, DMKPTS, DMKSEL, DMKVMA

SNARBLOK

Built by: DMKVCT

Released by: DMKVCT, DMKVCX

Referenced by: DMKACO, DMKBLD, DMKCFM, DMKCFT, DMKCKF, DMKCQG, DMKCQQ, DMKCQS, DMKCQT, DMKCQU, DMKCQY, DMKDIA, DMKDIB, DMKDSP, DMKJRL, DMKLOH, DMKLOM, DMKQCN, DMKQCO, DMKQCP, DMKTRD, DMKUSO, DMOUSQ, DMKVCN, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCV, DMKVCX

SPLINK

Built By: N/A

Released by: N/A

Referenced by: DMKACO, DMKCKF, DMKCKV, DMKCQH, DMKCSU, DMKDRD, DMKMIA, DMKRSP, DMKRSQ, DMKRST, SMKSPK, DMKSPL, DMKSPS, DMKTCS, DMKTRR, DMKTRT, DMKTRU, DMKVME, DMKVSP, DMKVSQ, DMKVST, DMKVSW, DMKVSX

SPTBLOK

Referenced by: DMKIOT, DMKSPR, DMKSPS, DMKSPT SPUBLOK

Referenced by: DMKCKR, DMKVSD, DMKVSE, DMKVSF, DMKVSG, DMKWRM

SSBLOK

Built by: DMKSWA

Released by: DMKSWA, DMKPTR, DMKSEL

Referenced by: DMKCKM, DMKMON, DMKPAG, DMKPAH, DMKPGM, DMKPGU, DMKPTR, DMKPTS, DMKSEL, DMKSTR, DMKSWA, DMKSWM

STOBLOK

Built by: DMKVAT

Released by: DMKVAT

Referenced by: DMKFPS, DMKPRG, DMKVAT, DMKVAU

SWPTABLE

Built by: DMKBLD, DMKVMA

Released by: DMKBLD

Referenced by: DMKATS, DMKBLD, DMKCFF, DMKCPP, DMKMON, DMKPGM, DMKPGS, DMKPTR, DMKPTS, DMKPTT, DMKSEL, DMKSTR, DMKSWA, DMKVAT, DMKVMA

SYSLOCS

Assembled into CP nucleus module DMKSYS.

Referenced by: DMKACO, DMKBLD, DMKCFT, DMKCFU, DMKCFV, DMKCKF, DMKLOC, DMKLOG, DMKLOJ, DMKLOM, DMKUDR, DMKUDU, DMKUSQ, DMKVCT

SYSPLIST

Assembled into CP nucleus module DMKSYS.

Referenced by: DMKMOO, DMKPGM, DMKPGT, DMKPST, DMKSRM, DMKSTP, DMKSWM, DMKUSP, DMKVDG, DMKVDH, DMKXST

SYSTBL

Assembled into DMKSNT.

Referenced by: DMKATS, DMKCFF, DMKCFG, DMKCFH, DMKCFS, DMKCKM, DMKCPP, DMKCQY

TDKBLOK

Built by: DMKCPI

Released by: DMKCPI

Referenced by: DMKCPI

TNSREC

Built by: DMKIOF

Released by: DMKIOF

Referenced by: DMKIOE, DMKIOJ

TRACEVCS

Built by: N/A

Released by: N/A

Referenced by: DMKVCV, DMKVCX

TREXT

Built by: DMKTRA

Released by: DMKTRA, DMKTRC, DMKUSO

Referenced by: DMKCFM, DMKDSP, DMKGRF, DMKMPO, DMKPGS, DMKPRV, DMKRGC, DMKSPM, DMKSVC, DMKTRA, DMKTRC, DMKTRD, DMKVIO, DMKVRS, DMKVSI, DMKVSJ

TRQBLOK

Built by: DMKBLD, DMKCFC, DMKCFS, DMKCPI, DMKGRF, DMKLOG, DMKMCC, DMKQCN, DMKRGA, DMKSCH

Released by: DMKCFM, DMKCFS, DMKDIA, DMKMCC, DMKLOG, DMKMON, DMKQCN, DMKRGA, DMKTRQ, DMKUSO

Referenced by: DMKBLD, DMKCDS, DMKCFJ, DMKCFM, DMKCFP, DMKCFQ, DMKCFR, DMKCFU, DMKCFY, DMKCPJ, DMKCPO, DMKCPP, DMKCQT, DMKDIA, DMKDIB, DMKDID, DMKDRD, DMKENT, DMKEXT, DMKFPS, DMKGRF, DMKGRH, DMKJRL, DMKLOH, DMKMCH, DMKMHC, DMKMID, DMKMNI, DMKMNJ, DMKMNL, DMKMOO, DMKPGM, DMKPMA, DMKQCP, DMKQVM, DMKRGA, DMKRGB, DMKRGC, DMKSCH, DMKSSU, DMKSTP, DMKSVC, DMKTMR, DMKTOD, DMKTRQ, DMKUSQ, DMKVCV, DMKVDA, DMKVDR, DMKVDS, DMKVRR, DMKVRS

UCNTRL

Built by: N.A.

Released by: N.A.

Referenced by: DMKUDU

UDBFBLOK

Built by: DMKDEF, DMKHVD, DMKSPL

Released by: DMKDEF, DMKHVD, DMKSPL

Referenced by: DMKCFT, DMKCFY, DMKDEG, DMKHVD, DMKLNK, DMKLOG, DMKLOH, DMKOPE, DMKSPL, DMKTRP, DMKUDR

UDEVBLOK

Built by: DMKCSP, DMKUDR

Released by: DMKCSP, DMKUDR

Referenced by: DMKDEF, DMKDEG, DMKDEI, DMKDIR, DMKLNK, DMKLNM, DMKLOJ, DMKLOM, DMKNEA, DMKSCO, DMKSSS, DMKUDR, DMKUDU, DMKVDA, DMKVDB, DMKVDE, DMKVDS, DNKVDT

UDIRBLOK

Built by: DMKCSP

Released by: DMKCSP

Referenced by: DMKCFT, DMKCFY, DMKCSP, DMKCSV, DMKDEG, DMKDIR, DMKHVD, DMKIUC, DMKLNK, DMKLOG, DMKLOH, DMKOPE, DMKRPD, DMKSPL, DMKTRP, DMKUDR, DMKUDU

UIUCBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKDIR, DMKIUC, DMKUDR

UMACBLOK

Built by: DMKDIR

Released by: DMKDIR

Referenced by: DMKCFT, DMKCFY, DMKCSP, DMKDEG, DMKDIR, DMKHVD, DMKIUC, DMKLOG, DMKLOH, DMKOPE, DMKSPL, DMKTRP, DMKUDR, DMKUDU

VBFBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKVSP, DMKVSQ, DMKVSR, DMKVSV

VCHBLOK

Built by: DMKVDS

Released by: DMKUSO

Referenced by: DMKCCH, DMKCFM, DMKCFP, DMKCFQ, DMKCFR, DMKCKF, DMKCPB, DMKCPT, DMKCPV, DMKCQG, DMKCSR, DMKCSU, DMKCSV, DMKDEF, DMKDEG, DMKDIA, DMKDSP, DMKFPS, DMKLNK, DMKLOH, DMKNEA, DMKPRV, DMKQVM, DMKSCN, DMKSPL, DMKSSS, DMKUSQ, DMKVCH, DMKVCN, DMKVDA, DMKVDC, DMKVDD, DMKVDE, DMKVDS, DMKVDT, DMKVIO, DMKVSC, DMKVSI, DMKVSJ, DMKVSP, DMKVST

VCONCTL

Built by: DMKVDS

Released by: DMKVDR

Referenced by: DMKACO, DMKALG, DMKCFM, DMKCFQ, DMKCFR, DMKCFT, DMKCKF, DMKCQG, DMKCQF, DMKDEF, DMKDIA, DMKDIB, DMKEXT, DMKGRF, DMKHVE, DMKNEA, DMKQCN, DMKQCO, DMKRGA, DMKRGC, DMKRGE, DMKSCN, DMKSND, DMKTHI, DMKTRD, DMKVCN, DMKVCP, DMKVCV, DMKVDR, DMKVDS

VCUBLOK

Built by: DMKVDS

Released by: DMKUSO

Referenced by: DMKCFM, DMKCFP, DMKCFQ, DMKCFR, DMKCKF, DMKCKP, DMKCPV, DMKCQG, DMKCSR, DMKCSU, DMKCSV, DMKDEF, DMKDEG, DMKDIA, DMKDSP, DMKLOH, DMKNEA, DMKNLD, DMKPRV, DMKQVM, DMKSCN, DMKSPL, DMKSSS, DMKUSQ, DMKVCB, DMKVCH, DMKVCN, DMKVDA, DMKVDC, DMKVDD, DMKVDR, DMKVDS, DMKVDT, DMKVIO, DMKVSC, DMKVSI, DMKVSJ, DMKVSP, DMKVST

VDEVBLOK

Built by: DMKLOG, DMKVDS

Released by: DMKUSO

Referenced by: DMKACO, DMKALG, DMKBIO, DMKCCH, DMKCCW, DMKCFG, DMKCFH, DMKCFM, DMKCFP, DMKCFQ, DMKCFR, DMKCFT, DMKCKF, DMKCKT, DMKCPB, DMKCPS, DMKCPV, DMKCQG, DMKCQP, DMKCQQ, DMKCQU, DMKCSB, DMKCSP, DMKCSQ, DMKCSR, DMKCST, DMKCSU, DMKCSV, DMKDAD, DMKDAS, DMKDAU, DMKDEF, DMKDEX, DMKDGD, DMKDGF, DMKDIA, DMKDIB, DMKDRD, DMKDSP, DMKEXT, DMKGIO, DMKGRF, DMKHPS, DMKHVC, DMKHVD, DMKHVE, DMKIOS, DMKLNK, DMKLOG, DMKLOH, DMKLOJ, DMKLOM, DMKMID, DMKNEA, DMKNLD, DMKOPE, DMKPNA, DMKPRV, DMKQCN, DMKQCO, DMKQVM, DMKRGA, DMKRGC, DMKSCN, DMKSCO, DMKSND, DMKSPL, DMKSSS, DMKSSU, DMKTHI, DMKTRC, DMKTRD, DMKTRK, DMKTTY, DMKUDR, DMKUNT, DMKUSQ, DMKVCA, DMKVCB, DMKVCH, DMKVCN, DMKVCP, DMKVCR, DMKVCV, DMKVCX, DMKVDA, DMKVDC, DMKVDD, DMKVDR, DMKVDS, DMKVDT, DMKVER, DMKVIO, DMKVRR, DMKVRS, DMKVSC, DMKVSI, DMKVSJ, DMKVSP, DMKVSQ, DMKVSR, DMKVST, DMKVSU, DMKVSV, DMKVSW, DMKVSX

VFCBBLOK

Built by: DMKCFG, DMKCSO

Released by: DMKVDR

Referenced by: DMKCSB, DMKSPL, DMKVSP, DMKVSQ, DMKVSR, DMKVST, DMKVSX

VMABLOK

Built by: DMKBLD, DMKCFG

Released by: DMKBLD, DMKPGS, DMKVMA

Referenced by: DMKATS, DMKCFF, DMKPGS, DMKVMA

VMBLOK

Built by: DMKBLD

Released by: DMKBLD, DMKDIA, DMKLOG, DMKUSO

Referenced by: DMKACO, DMKACR, DMKALG, DMKAPI, DMKAPT, AMKAPU, DMKAPV, DMKAPX, DMKAPY, DMKATS, DMKBIO, DMKBLD, DMKCAC, DMKCAO, DMKCCD, DMKCCF, DMKCCH, DMKCCO, DMKCCS, DMKCCT,DMKCCW, DMKCDB, DMKCDM, DMKCDS, DMKCFC, DMKCFD, DMKCFF, DMKCFG, DMKCFH, DMKCFJ, DMKCFM, DMKCFO, DMKCFP, DMKCFQ, DMKCFR, DMKCFS, DMKCFT, DMKCFU, DMKCFV, DMKCFW, DMKCFY, DMKCKD DMKCKF, DMKCKM, DMKCKN, DMKCKP, DMKCKR, DMKCKS, DMKCKT, DMKCKV, DMKCKW, DMKCLK, DMKCNS, DMKCNT, DMKCPB, DMKCPI, DMKCPJ, DMKCPM, DMKCPN, DMKCPO, DMKCPP, DMKCPS, DMKCPT, DMKCPU, DMKCPV, DMKCPW, DMKCPX, DMKCPY, DMKCPZ, DMKCQC, DMKCQG, DMKCQH, DMKCQP, DMKCQQ, DMKCQR, DMKCQS, DMKCQT, DMKCQU, DMKCQY, DMKCSB, DMKCSC, DMKCSF, DMKCSO, DMKCSP, DMKCSQ, DMKCSR, DMKCST, DMKCSU, DMKCSV, DMKDAD, DMKDAS, DMKDAU, DMKDEF, DMKDEG, DMKDEI, DMKDEX, DMKDGD, DMKDGF, DMKDIA, DMKDIB, DMKDID, DMKDIF, DMKDMP, DMKDMQ, DMKDRD, DMKDRE, DMKDSB, DMKDSP, DMKENT, DMKEPS, DMKERM, DMKEXT, DMKFPS, DMKFRE, DMKFRT, DMKGIO, DMKGRA, DMKGRC, DMKGRD, DMKGRE, DMKGRF, DMKGRG, DMKGRI, DMKGRT, DMKHPS, DMKHPT, DMKHPU, DMKHVC, DMKHVD, DMKHVE, DMKHVF, DMKIDR, DMKIDU, DMKIOE, DMKIOF, DMKIOG, DMKIOH, DMKIOJ, DMKIOQ, DMKIOS, DMKIOT, DMKISM, DMKIUA, DMKIUB, DMKIUC, DMKIUE, DMKIUG, DMKIUJ, DMKIUL, DMKIUN, DMKIUP, DMKIUS, DMKJRL, DMKLNK, DMKLNM, DMKLOG, DMKLOH, DMKLOJ, DMKLOK, DMKLOM, DMKMCC, DMKMCD, DMKMCH, DMKMCI, DMKMCT, DMKMHC, DMKMHV, DMKMIA, DMKMID, DMKMNI, DMKMNJ, DMKMON, DMKMOO, DMKMPO, DMKMSG, DMKMSW, DMKNEA, DMKNES, DMKNET, DMKNLD, DMKNLE, DMKOPE, DMKPAG, DMKPAH, DMKPEI, DMKPEL, DMKPEN, DMKPEQ, DMKPER, DMKPET, DMKPGM, DMKPGS, DMKPGT, DMKPGU, DMKPMA, DMKPRG, DMKPRV, DMKPRW, DMKPSA, DMKPTR, DMKPTS, DMKPTT, DMKPXA, DMKPXB, DMKQCN, DMKQCO, DMKQCP, DMKQCQ, DMKQVM, DMKREI, DMKRET, DMKRGA, DMKRGB, DMKRGC, DMKRGD, DMKRGE, DMKRNH, DMKRPA, DMKRPD, DMKRSE, DMKRSF, DMKRSP, DMKRSQ, DMKRST, DMKSAV, DMKSCH, DMKSCN, DMKSCO, DMKSEG, DMKSEL, DMKSEP, DMKSFB, DMKSNC, DMKSND, DMKSPK, DMKSPL, DMKSPM, DMKSPR, DMKSPS, DMKSPT, DMKSRM, DMKSSS, DMKSST, DMKSSU, DMKSSV, DMKSTA, DMKSTK, DMKSTP, DMKSTR, DMKSVC, DMKSVD, SMKSWA, DMKSWM, DMKSYM, DMKTCS, DMKTCT, DMKTES, DMKTHI, DMKTMR, DMKTOD, DMKTRA, DMKTRC, DMKTRD, DMKTRK, DMKTRP, DMKTRQ, DMKTRT, DMKTRU, DMKTTY, DMKUDR, DMKUDU, DMKUNT, DMKURS, DMKUSP, DMKUSQ, DMKVAT, DMKVAU, DMKVBM, DMKVCA, DMKVCB, DMKVCH, DMKVCN, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCU, DMKVCV, DMKVCW, DMKVCX, DMKVDA, DMKVDB, DMKVDC, DMKVDD, DMKVDE, DMKVDF, DMKVDG, DMKVDR, DMKVDS, DMKVDT, DMKVER, DMKVFC, DMKVFD, DMKVFE, DMKVFR, DMKVFS, DMKVIO, DMKVMA, DMKVMC, DMKVMD, DMKVME, DMKVMG, DMKVMI, DMKVRR, DMKVRS, DMKVSC, DMKVSD, DMKVSE, DMKVSG, DMKVSI, DMKVSJ, DMKVSP, DMKVSQ, DMKVSR, DMKVST, DMKVSU, DMKVSW, DMKVSX, DMKXAB, DMKXAD, DMKWAI, DMKWRM, DMKWRN

VMCBLOK

Built by: DMKVMC

Released by: DMKVMC

Referenced by: DMKDSP, DMKVMC

VMCMHDR

Built by: N/A

Released by: N/A

Referenced by: DMKMSG

VMCPARM

Built by: Virtual machine user

Released by: Virtual machine user

Referenced by: DMKVMC

VMPSCOM

Built by: N/A

Released by: N/A

Referenced by: DMKGRF, DMKHPS, DMKHPT, DMKHPU, DMKSCN

VMQBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKDSP, DMKFPS, DMKMOO, DMKPRG, DMKQVM, DMKSCH, DMKSTP, DMKTMR, DMKTRQ

VPRXBLOK

Built by: N/A

Released by: N/A

Referenced by: DMKCQG, DMKSPL, DMKVDS, DMKVSP, DMKVSQ, DMKVSR, DMKVST, DMKVSV, DMKVSX

VRRBLOK

Built by: DMKVDS

Released by: DMKVDR

Referenced by: DMKCCW, DMKCFR, DMKDGD, DMKGIO, DMKUNT, DMKVDS, DMKVIO, DMKVSC, DMKVSI

VRS

Built by: N/A

Released by: N/A

Referenced by: DMKCKD, DMKCKH, DMKSAV, DMKSTA, DMKVRR, DMKVRS

VRSDDEV

Built by: N/A

Released by: N/A

Referenced by: DMKVRR, DMKVRS

VRSIOI

Built by: N/A

Released by: N/A

Referenced by: DMKCKH, DMKDSP, DMKSAV, DMKVRR, DMKVRS

VSMBLOK

Built by: DMKVCT

Released by: DMKVCT, DMKVCX

Referenced by: DMKCFM, DMKCFT, DMKCQG, DMKCQS, DMKCQT, DMKDIA, DMKJRL, DMKLOH, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCT, DMKVCV, DMKVCX

VSPLCTL

Built by: DMKDRD, DMKVSP

Released by: DMKVSP

Referenced by: DMKCKF, DMKCSQ, DMKCSR, DMKDRD, DMKSPL, DMKVSP, DMKVSQ, DMKVSR, DMKVST, DMKVSU, DMKVSV, DMKVSW, DMKVSX

VSPXBLOK

Built by: DMKCST

Released by: DMKCST

Referenced by: DMKCKF, DMKCQG, DMKCSR, DMKCST, DMKSPL, DMKVDR, DMKVDR, DMKVDS, DMKVSP, DMKVSQ

WEBLOK

Built by: DMKVCP, DMKVCX

Released by: DMKVCP

Referenced by: DMKGRC, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCV, DMKVCX

WEIBLOK

Built by: DMKVCR

Released by: DMKVCV, DMKVCX

Referenced by: DMKLOH, DMKVCP, DMKVCQ, DMKVCR, DMKVCS, DMKVCV, DMKVCX

XINTBLOK

Built by: DMKCFP, DMKCPB, DMKDSP, DMKGRF, DMKHPS, DMKRGA, DMKSCH, DMKTMR, DMKTRQ

Released by: DMKCFP, DMKDSP, DMKSCH, DMKTMR, DMKTRQ

Referenced by: DMKCFP, DMKCFY, DMKCPB, DMKDSP, DMKFPS, DMKGRF, DMKHPU, DMKIUE, DMKMHC, DMKMHV, DMKMPO, DMKPMA, DMKRGC, DMKSCH, DMKTMR, DMKTRQ, DMKVCP, DMKVMC, DMKVRR, DMKVRS

This page left blank

CONTROL BLOCK RELATIONSHIPS

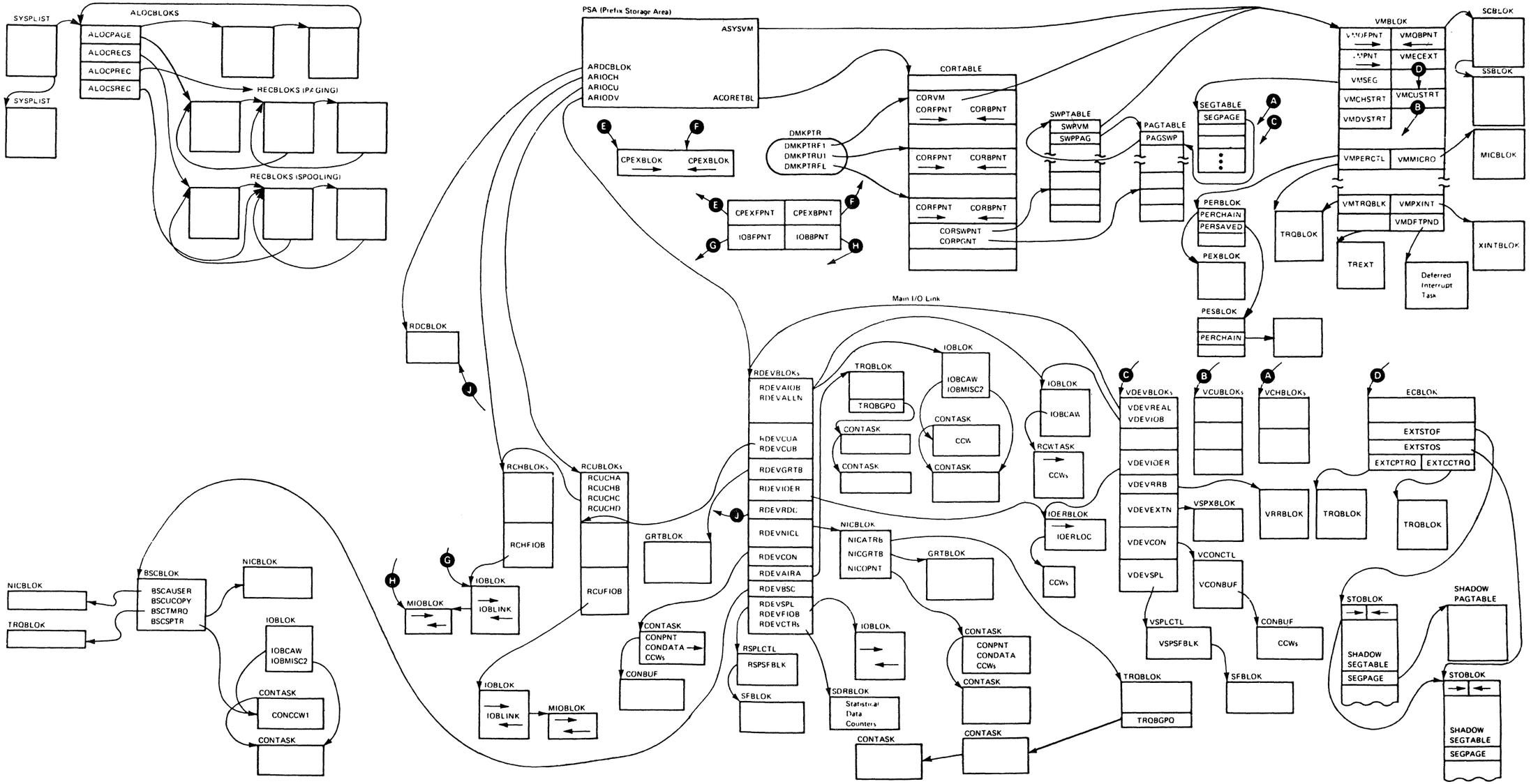


Figure 4. CP Control Block Relationships

This page left blank

Virtual Machine/
System Product
High Performance Option

Data Areas and
Control Block Logic-CP

LY20-0896-7
File No. S370-36

READER'S COMMENT FORM

Order No. LY20-0896-7

This manual is part of a library that serves as a reference source for systems analysts, programmers, and operators of IBM systems. You may use this form to communicate your comments about this publication, its organization, or subject matter, with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you. Your comments will be sent to the author's department for whatever review and action, if any, are deemed appropriate.

Note: *Copies of IBM publications are not stocked at the location to which this form is addressed. Please direct any requests for copies of publications, or for assistance in using your IBM system, to your IBM representative or to the IBM branch office serving your locality.*

How did you use this publication?

[ ] As an introduction
[ ] As a reference manual
[ ] For another purpose (explain) _____

[ ] As a text (student)
[ ] As a text (instructor)

Is there anything you especially like or dislike about the organization, presentation, or writing in this manual? Helpful comments include general usefulness of the book; possible additions, deletions, and clarifications; specific errors and omissions.

Page Number: Comment:

What is your occupation? _____

Newsletter number of latest Technical Newsletter (if any) concerning this publication: _____

If you wish a reply, give your name and address: _____

IBM branch office serving you _____

Thank you for your cooperation. No postage stamp necessary if mailed in the U.S.A. (Elsewhere, an IBM office or representative will be happy to forward your comments or you may mail directly to the address in the Edition Notice on the back of the title page.)

Note: Staples can cause problems with automatic mail-sorting equipment. Please use pressure-sensitive or other gummed tape to seal this form.

LY20-0896-7

Reader's Comment Form

LY20-0896-7
File No. S370-36

Fold and Tape | Please Do Not Staple | Fold and Tape

NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 40 ARMONK, N.Y.

POSTAGE WILL BE PAID BY ADDRESSEE

International Business Machines Corporation
Department 52Q MS 458
Neighborhood Road
Kingston, New York 12401

Fold and Tape | Please Do Not Staple | Fold and Tape

PRINTED IN U.S.A. LY20-0896-7

IBM®

LY20-0896-7
File No. S370-36

VM/SP HPO Data Areas and Control Block Logic-CP File No. S370-36 Printed in U.S.A. LY20-0896-7

LY20-0896-07

IBM®