

JCL

Pocket Guide

DPS7000/XTA
NOVASCAL 7000

Job Control and IOF



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Job Control and IOF

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1. JCL STATEMENTS

1.1 Introduction

This section contains, in alphabetical order, a list of all the JCL statements and the formats.

The following notation conventions are used in the JCL statements:

UPPERCASE The keyword item is coded exactly as shown.

lowercase Indicates a user supplied parameter value.

[item] An item within square brackets is optional.

Item1
Item2
Item3

A column of items within square brackets means that at most one item must be specified. If one of the items is underlined, that item is taken by default.

Item1
Item2
Item3

A column of items within braces means that one item must be selected if the associated keyword is specified. If the keyword is not specified, the underlined item is taken as its default value.

() Parentheses enclose a group of associated parameters and can be omitted only when they contain a single positional parameter.

INLIB1
INLIB2
INLIB3

This is indicated in text as: INLIB1.

.... An ellipsis indicates that the preceding item may be repeated one or more times.

:: = Means "is defined as".

ALLOCATE Titles of Basic JCL statements are shown in italics.

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Notes:

1. The full expansions of file and library descriptions (e.g., output-library-description) are given in Appendix A.
2. The optional parameter groups STEPOPT and SIZEOPT may be specified in any Extended JCL statement. They are not included in the following list of statements but are expanded in full in Appendix B.
3. The parameter groups "sysout-parameters" and "define-parameters" refer to the parameters of the corresponding JCL Basic Statements (SYSOUT or DEFINE), with the exception of the first parameter in each case (internal-file-name). See the appropriate statement for the syntax.

1.2 Abbreviations

The following abbreviations are used in the JCL formats:

a	area-code-number
ak	area-key
an	area-name
ccc	cylinder
ccc/tt	cylinder/track
cu	compile-unit
dbk	data-base-key
dbp	data-base-parameter
ddd	number-of-days
efn	external-file-name
fn	field-name
hh	number-of-hours
id	identifier
ifn	internal-file-name
int	decimal-integer
kn	key-name
l	line-number
lbd	library-description (input-library or output-library)
lit	literal
m,q,t,u &v	decimal-integer
ms	number of milliseconds
n	decimal-number
p	page-number
rn	record-name
sch	schema-name
sifd	sort-input-file-description
ss	number-of-seconds
tt/rr	track/record
trn	transform/name
vn	volume-name
vsn	volume-serial-number
yy/ddd	year/day
yy/mm/dd	year/month/day

The manual in which each statement is fully described, is indicated by an abbreviation below the statement title, in parentheses, e.g.: (JCRM). The abbreviations are explained in Appendix F.

1.3 Notation Variables

string	any string of characters
stringN	any string of maximum length N characters
string_N	any string of length N characters
digits	string of decimal digits (0 to 9)
digitsN	string of decimal digits of maximum length N
digits_N	string of decimal digits of length N
hexa	string of hexadecimal characters (0 to 9 and A to F)
hexaN	string of hexadecimal characters of maximum length N characters
hexa_N	string of hexadecimal characters of length N characters
octal	string of octal characters (0 to 7)
octalN	string of octal characters of maximum length N characters
octal_N	string of octal characters of length N characters
bits	string of characters 0 and 1
bitsN	string of 0 and 1 characters of maximum length N characters
bits_N	string of 0 and 1 characters of length N characters
alphanum	string of alphanumeric characters (A to Z, 0 to 9, underscore_and hyphen-), beginning with a letter or decimal digit. Underscore and hyphens must not be used in the first position.
alphanumN	string of alphanumeric characters of maximum length N characters.
alphanum_N	string of alphanumeric characters of length N characters
identifier	an alphanumeric string, beginning with a letter.
identifierN	identifier of maximum length N characters
identifier_N	identifier of length N characters.

1.4 Naming Conventions

application-name	::=	alphanum8
billing-name	::=	alphanum12
catalog-name	::=	simple-name [.simple-name].CATALOG
cu-name	::=	alphanum31
device-class	::=	device-external-type [device-external-type [/device- attributes]]
device-external-type	::=	alphanum_2
device-external-name	::=	digits_2
device-identifier	::=	alphanum_4 (concatenation of device- external-type and device- external-name)
directory-name	::=	qualified-name (length ≤ 42)
entry-name	::=	alphanum31 (: := cu-name)
external-file-name	::=	qualified name or protected- string (length ≤ 44)
generation-group-name	::=	qualified-name (length ≤ 33)
input-enclosure-name	::=	alphanum16
internal-file-name	::=	alphanum8
job-name	::=	alphanum8
label-name	::=	alphanum8
link-name	::=	qualified-name (length ≤ 44)
LKU-name	::=	alphanum30
load-module-name	::=	alphanum31
master-directory-name	::=	simple-name
member-name	::=	alphanum31
password	::=	string12
project-name	::=	alphanum12
qualified-name	::=	simple-name (.simple-name) ...
simple-name	::=	alphanum16
site-name	::=	alphanum8
SM-name	::=	alphanum30
star-name	::=	alphanum31 (unspecified parts replaced by *)
station-name	::=	alphanum8
tds-code	::=	hexa8
temporary-file-name	::=	simple-name
user-name	::=	alphanum12
volume-name	::=	alphanum6 or protected string (length ≤ 6)

1.5 Statement Syntax

This section contains the syntax of the following basic and extended JCL statements (basic statements shown in italics):

<i>ALLOCATE</i>	FILMODIF	<i>RELEASE</i>
<i>ASSIGN</i>	FILREST	<i>REPORT</i>
BINDER	FILSAVE	ROLLFWD
C	FILTFR	<i>RUN</i>
CATALOG	FORMGEN	<i>SEND</i>
CATBUILD	FOR77	SETLIST
CATCHECK	GPL	SHIFT
CATDELETE	GSORT	<i>SIZE</i>
CATEXTD	GSORTWK	SORT
CATLIST	<i>INPUT</i>	SORTIDX
CATMAINT	<i>INVOKE</i>	SORTWORK
CATMODIF	JAGEN	<i>STEP</i>
CATMOVE	<i>JOB</i>	<i>SWINPUT</i>
CBL	<i>JOBLIB</i>	SYSMANT
CMDMGT	<i>JUMP</i>	<i>SYSOUT</i>
<i>COMMENT</i>	<i>LET</i>	UNCAT
COMPARE	<i>LIB</i>	URINIT
<i>CONSOLE</i>	LIBALLOC	<i>VALUES</i>
CREATE	LIBDELETE	VOLCHECK
<i>DATA</i>	LIBMAINT	VOLCOMP
DEALLOC	LINKER	VOLDUPLI
DEFINE	MERGE	VOLLIST
DUMPJNRL	<i>MESSAGE</i>	VOLMAINT
<i>ENDDATA</i>	MIRFIL	VOLMODIF
<i>ENDINPUT</i>	MIRSTART	VOLPREP
<i>ENDJOB</i>	<i>MODVL</i>	VOLREST
<i>ENDSTEP</i>	<i>OUTVAL</i>	VOLSAVE
<i>EXDIR</i>	PASCAL	VSETLIST
<i>EXECUTE</i>	<i>POOL</i>	<i>WRITER</i>
FILALLOC	PREALLOC	
FILCHECK	<i>PREFIX</i>	
FILDUPLI	PRINT	
FILLIST	<i>QASSIGN</i>	
FILMAINT		

JCL Statements

ALLOCATE

(JCRM)

internal-file-name

```
{SIZE = digits5  
{INCRSIZE = digits5  
{SIZE = digits5 INCRSIZE = digits5}
```

```
[ {TRACK } ]  
[ {CYL } ]  
[UNIT = {RECORD}]  
[ {BLOCK } ]  
[ {100KB} ]
```

```
[CHECK]  
[KEEP];
```

APL

(APUG)

```
[LIB = (output-library-description)];
```

APLCAT

(APUG)

```
COMFILE = (sequential-input-file-description)];
```

ASSIGN

(JCRM)

internal-file-name

```
{external-file-name }  
{temporary-file-name }  
{*input-enclosure-name }  
{DUMMY }  
{* }
```

```
[{FILESTAT = {CAT } }]  
[ { UNCAT } ]  
[ { TEMPRY } ]  
[ { } ]  
[ { TEMPRY } ]
```

```
[CATALOG = digit1]
```

```
[CATNOW]
```

```
[ EXPDATE = {ddd }  
{yy/ddd } ]  
{yy/mm/dd }
```

```
[ {VOLWR } ]  
[ {NVOLWR} ]
```

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```
[OPTIONAL]

[DEFER]

[ {RESIDENT          } ]
[ {device-class-description } ]
[ {device-identification-list } ]
[ {VOLSET = {volset-name|DFLT}} ]

[SUBFILE = member-name]

[          {NORMAL } ]
[          {ONEWRITE} ]
[SHARE = {FREE } ]
[          {MONITOR } ]
[          {DIR } ]

[          {WRITE } ]
[          {READ } ]
[          {SPWRITE } ]
[ACCESS = {SPREAD } ]
[          {RECOVERY} ]
[          {ALLREAD } ]

[          {PASS } ]
[END = {DEASSIGN} ]
[          {LEAVE } ]
[          {UNLOAD } ]

[          {PASS } ]
[ABEND = {DEASSIGN} ]
[          {LEAVE } ]
[          {UNLOAD } ]

[MOUNT = digits2]

[POOL [ {FIRST} ] ]
[      [ {NEXT } ] ]

[          {NATIVE} ]
[LABEL = {NONE } ]
[          {NSTD } ]

[FIRSTVOL = {digits3} ]
[          {EOF } ]

[LASTVOL = {digits3} ]
[          {EOF } ]

[          {digits3} ]
[FSN = {ANY } ]
[          {NEXT } ]

[NBEFN = {digits3} ]
[          {ALL } ]

[          {D1600 } ]
[DENSITY = {D6250 } ]
[          {S35 } ]
```

JCL Statements

```
[          {S75  }];
```

Where the device-class-description has the format:

```
DEVCLASS = device-class
```

```
MEDIA = { {WORK  
          { (volume-name [volume-name] ... ) }  
          { * } }
```

and the device-identification-list has the format:

```
DVIDLIST = (device-name [device-name] ... )
```

```
MEDIA = { {WORK  
          { (volume-name [volume-name] ... ) }  
          { * } }
```

```
;
```

BINDER (BIUG)

```
[INLIB = { {TEMP  
           { (input-library-description) } }]
```

```
[OUTLIB = { {TEMP  
            { (output-library-description) } }]
```

```
COMMAND = 'binding-statement  
           [binding-statement] ...'
```

```
COMFILE = (sequential-input-file-description)
```

```
[PRTLIB = (print-library-description)]
```

```
[PRTFILE = (print-file-description)]
```

```
[WORKFILE = (work-file-description)]
```

```
[          {NO  }]  
[DUMP = {DATA}]  
[          {ALL }]
```

```
{INFILE = (sequential-input-file-description) }  
{ *input-enclosure name }  
{ {member_name } }  
{ { (member-name[member-name]...) } }  
{ { {INLIB=input-library-description} } }
```

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```

{SOURCE = {{          {INLIB1          }}}}
           {{          {INLIB2          }}}}
           {{          {INLIB3          }}}}
           {{(star-name[star-name]...) }}]}

[          {TEMP          }]]
[CULIB =  {          }]]
[          {(output-library-description)}]]

[          {SYS.C.INCLUDE          }]]
[INLIBZ = {          }]]
[          {input-library-description}]]

[{{NLIST}}]{{NEXPLIST}}]{{NMAP}}]{{NREF}}]{{WARN }}]
[{{LIST }}]{{EXPLIST }}]{{MAP }}]{{REF }}]{{NWARN}}]

[{{OBSERV }}]{{NROUND}}]          {OBJA }][{{LFATAL }}]
[{{          }}]{{          }}] CODE = {OBJD }][{{          }}]
[{{NOBSERV}}]{{ROUND }}]          {OBJCD}][{{LOBSERV}}]

[          {ANSI          }]]
[LEVEL = {STANDARD}}]{{OBJ }}]{{ILN}}]
[          {GCOS7          }]]{{NOBJ}}]{{XLN}}]
[          {GANSI          }]]

[{{NCHECK}}]{{NDEBUG}}]
[{{CHECK }}]{{DEBUG }}]

[          {0}]
[          {1}]
[OPTIMIZE = {2}][PACKAGE][PSEGMAX] [K11 = {Y}]
[          {3}]
[          {4}]

[{{          {SYS.OUT          }}}}
[{{PRTFILE = {          }}}}
[{{          {print-library_description}}}]]

[{{PRILIB = {print-library-description}}}]]

[EXPLIB = source-library-description]

[EXPONLY]          [INLINE]          [MODSTRNG] ;

```


JCL Statements

CATALOG (Statement form 1:)
(CATM)

external-file-name

TYPE = FILE

[{CATNAME = char44 }]
[{CATALOG = digits1}]

[SHARE = {NORMAL }]
{ONEWRITE }
{MONITOR }
{DIR }
{FREE }
{UNSPEC }]

[DUALSHR = {NORMAL }]
{NONE }
{ONEWRITE }
{FREE }]

[INCRSIZE = digits5 [UNIT = {TRACK }
{CYLINDER }]
{BLOCK }]]

[JOURNAL = {NO }]
{BEFORE }
{AFTER }
{BOTH }
{PRIVATE }]

[LIST = project-name[,project-name]...]

[OWNER = project-name]

[NULL = project-name[,project-name]...]

[EXECUTE = project-name[,project-name]...]

[READ = project-name[,project-name]...]

[WRITE = project-name[,project-name]...]

[RECOVERY = project-name[,project-name]...]

[PRTFILE = (print-file)]

[PRTDEF = (define-parameters)]

[PRTOUT = (sysout-parameters)];

CATALOG (Statement form 2:)

```
{directory-name      }
{master-directory-name}

TYPE = DIR

  {CATALOG=digit1}
  [ {CATNAME=char44} ]

[LIST = project-name[,project-name]...]

[OWNER = project-name]

[NULL = project-name[,project-name]...]

[EXECUTE = project-name[,project-name]...]

[READ = project-name[,project-name]...]

[WRITE = project-name[,project-name]...]

[RECOVERY = project-name[,project-name]...]

[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];
```

CATALOG (Statement form 3:)

```
link-name

TYPE = FLINK
{PATH      = file-name      }
{MLDSPATH  = [file-name[,file-name]..]}

[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];
```

CATALOG (Statement form 4:)

```
generation-name

TYPE = GEN

[CATALOG = digit1]

[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];
```

JCL Statements

CATALOG (Statement form 5:)

generation-group-name

(Same parameters as statement form 1 plus the following:)

[GENTYPE = CLOSELP]

NBGEN = digits2

[RETPER = $\left\{ \begin{array}{l} 0 \\ \text{digits3} \end{array} \right\}$];

CATALOG (Statement form 6:)

generation-group-name

(Same parameters as statement form 1 plus the following:)

GENTYPE = OPENLP

[NBGEN = $\left\{ \begin{array}{l} 9999 \\ \text{digits4} \end{array} \right\}$]

[STARTGEN = $\left\{ \begin{array}{l} 0001 \\ \text{digits4} \end{array} \right\}$];

CATBUILD

(CATM)

catalog-file-description-1

NBOBJECT = digits5

[$\left\{ \begin{array}{l} \text{NAUTOATT} \\ \text{AUTOATT} \end{array} \right\}$]

[CYLINDER = digits3]

[EXPDATE = $\left\{ \begin{array}{l} \text{digits3} \\ \text{digits2/digits3} \\ \text{digits2/digits2/digits3} \end{array} \right\}$]

[PRTFILE = (print-file)
[PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];

CATCHECK

(CATM)

catalog-file-description-2

```
[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]
```

```
[PRTOUT = (sysout-parameters)];
```

CATDELET

(CATM)

catalog-file-description-2

```
[FORCE]
```

```
[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]
```

```
[PRTOUT = (sysout-parameters)];
```

CATEXTD

(CATM)

catalog-file-description-2

```
NBOBJECT = digits5
```

```
[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]
```

```
[PRTOUT = (sysout-parameters)];
```

CATLIST

(CATM)

```
[           {      *      } ]
[FROM = {      -      } ]
[           {Object-name} ]
```

```
[           {DIR   } ]
[           {FILE } ]
[TYPE = {           } ]
[           {GEN   } ]
[           {FLINK} ]
```

```
[           { 22   } ]
[LEVEL = {           } ]
[           {digits2} ]
```

```
[           {YES } ]
[CONTROL = {      } ]
[           {NO  } ]
```

JCL Statements

```
[
  {YES}
[ALLOC = {
  }
[
  {NO }]]

[
  {NO }]]
[SUBFILES = {
  }
[
  {YES}]]

[
  {YES}]]
[ACL = {
  }
[
  {NO }]]

[
  {NO }]]
[ORG = {
  }
[
  {YES}]]

[
  {NO }]]
[SPACE = {
  }
[
  {YES}]]

[
  {NO }]]
[USAGE = {
  }
[
  {YES}]]

[
  {NO }]]
[SHORT = {
  }
[
  {YES}]]

[
  {NO }]]
[ALL = {
  }
[
  {YES}]]

[
  {ALPHA}]]
[SORT = {VOL
  }]]
[
  {NO }]]

[SELECT = ([DEVCLASS = device-class-name])]

[MEDIA = (media-name(,media-name)...)]

[ {UPDATEGE = last-update-date} ]
[ {UPDATELE = last-update-date} ]

[OUTREF = sequential-output-file]

[APPEND]

[
  {NO }]]
[LISTGEN = {
  }
[
  {YES}]]

[ {CATNAME = char44} ]
[ {CATALOG = digit1} ]

[PRTFILE = (print-file-descr)
  [PRTDEF = (define-params)]]

[PRTOUT = (sysout-parameters)];
```

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JCL Statements

CATMAINT (CATM)

```
COMFILE = sequential-input-file

[PRTFILE = (print-file-descr)
  [PRTDEF = (define-params)]]

[PRTOUT = (sysout-parameters)];
```

CATMODIF (Statement form 1:) (CATM)

```
{*
{directory-name
{master-directory-name}

TYPE = DIR

{CATALOG=digit1}
[{{
{CATNAME=char44}}]

[DELETE = {*
{project-name} } , [LEVEL = {22
{digit2} }]]

[LIST = project-name[,project-name]...]

[OWNER = project-name]

[NULL = project-name[,project-name]...]

[EXECUTE = project-name[,project-name]...]

[READ = project-name[,project-name]...]

[WRITE = project-name[,project-name]...]

[RECOVERY = project-name[,project-name]...]

[PRTFILE = (print-file)
  [PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];
```

CATMODIF (Statement form 2:)

```

external-file-name

TYPE = FILE

{ CATALOG=digit1 }
[ { CATNAME=char44 } ]

[ SHARE = { NORMAL } ]
           { ONWRITE }
           { MONITOR }
           { DIR }
           { FREE }
           { UNSPEC }

[ DUALSHARE = { NORMAL } ]
               { NONE }
               { ONWRITE }
               { FREE }

[ INCRSIZE = digits5 [ UNIT = { TRACK } ] ]
                          { CYLINDER } ] ]
                          { BLOCK }

[ JOURNAL = { NO } ]
            { BEFORE }
            { AFTER }
            { BOTH }
            { PRIVATE }

[ RETPER = digits3 ]

[ { ON } ]
[ IGEXPDT = { } ]
[ { OFF } ]

[ EXPDATE = { ddd } ]
            { yy/ddd }
            { yy/mm/dd }

[ NBGEN = digits4 ]

[ STARTGEN = digits4 ]

[ SLOCK = { { IN } } ]
          { ON [PMD = { AP } ] }
          { { IA } } ]
          { OFF }

[ UNLOCK ]

[ DELETE = [project-name
           [,level = 22 | digits2]] ]

```


JCL Statements

```
[VOLSET = {char6}]

[CLRVSET]

[DEVCLASS = device-class-name]

[MEDIA = (MEDIA-name [,MEDIA-name]...)]

[TENTH = DIGIT1]

[NMEDIA]

[ {PROTECT } ]
[ {NPROTECT} ]

[      {BYPASS } ]
[IOC = {DEFAULT} ]
[      {FORCE  } ]

[ {LOGSUBF } ]
[ {NLOGSUBF} ]

[LIST = project-name[,project-name]...]

[OWNER = project-name]

[NULL = project-name[,project-name]...]

[EXECUTE = project-name[,project-name]...]

[READ = project-name[,project-name]...]

[WRITE = project-name[,project-name]...]

[RECOVERY = project-name[,project-name]...]

[PRTFILE = (print-file)
           [PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];
```

CATMOVE
(CATM)

```

FROM = { *
        { object-name }
}

[ TYPE = { { DIR }
           { FILE }
           { FLINK }
}

NFILE = (catalog-file-description-2)
OUTFILE = (catalog-file-description-2)
[ EXCLUDE = object-name-[ ,object-name... ] ]

[ IGNORE ]

[ REPLACE ]

[ DELETE ]

[ UPGRADE ]
[ NUPGRADE ]

[ LIST ]
[ NLIST ]

[ PRTFILE = (print-file)
            [ PRTDEF = (define-parameters) ] ]

[ PRTOUT = (sysout-parameters) ] ;

```

CMDMGT
(IOF2) *

```

COMFILE = (sequential-input-file-description)
          [ COMDEF = (define-parameters) ]

[ BINLIB = (output-library-description) ]

[ SLLIB = (output-library-description) ]

[ PRTFILE = (print-file-description)
          [ PRTDEF = (define-parameters) ] ]

[ PRTOUT = (sysout-parameters) ] ;

```

Note: In the IOF manual, CMDMGT is called MAINTAIN_COMMAND.

JCL Statements

CBL (COUG)

```

{SOURCE = *input-enclosure-name
  COMFILE = (sequential-input-file-descr) }
{SOURCE = member-name
  [{LIB = (output-library-description) }]
  [{INLIB = (input-library-description)}]
  [{INLIB1 = (input-library-description)}]
  [{INLIB2 = (input-library-description)}]
  [{INLIB3 = (input-library-description)}]
  [{COMFILE = (sequntl-input-file-descr)}]
}

{SOURCE = (member-name, member-name ... )
  [{LIB = (output-library-description) }]
  [{INLIB = (input-library-description)}]
  [{INLIB1 = (input-library-description)}]
  [{INLIB2 = (input-library-description)}]
  [{INLIB3 = (input-library-description)}]
}

{SOURCE = (star-name, star-name ... )
  {LIB = (output-library-description) }
  {INLIB = (input-library-description)}
  {INLIB1 = (input-library-description)}
  {INLIB2 = (input-library-description)}
  {INLIB3 = (input-library-description)}
}

{INFILE = (sequential-input-file-description)
  [COMFILE = (sequntl-input-file-descr) ]
}

{COMFILE = (sequential-input-file-descr)
  [INLIB = (input-library-description)]
}

[ COVLIB = ( output-library-description ) ]

[ DDLIB1 = ( input-library-description ) ]
[ DDLIB2 = ( input-library-description ) ]
[ DDLIB3 = ( input-library-description ) ]

[ CULIB = ( output-library-description ) ]
[ DICLIB = ( output-library-description ) ]

[ { PRTFILE = ( print-file-description ) } ]
[ { PRTLIB = ( print-library-description ) } ]

[LEVEL =
{NSTD
  {ANSI
    {HIGH
      {H
        [ {-DBG }][{-RW }][{-COM }][{-SEG } ]
      }
      {INTERMEDIATE}[{-DBG1 }][{-COM1 }][{-SEG1 } ]
    }
    {I
      [ {-DBG2 }][{-RW1 }][{-COM2 }][{-SEG2 } ]
    }
    {MINIMUM
      {M
    }
  }
}
]

[ CODE = { OBJA } ]
[ CODE = { } ]
[ CODE = { OBJCD } ]

```

JCL Pocket Guide

```
[ DSEGMAX = digits4[K]]
[ PSEGMAX = digits4[K]]
[ ISEGMAX = (digits4[K] digits3 [digits4[K]]) ]

[      [ {NS } ] ]
[ TEMP = [digits2] [ { } ] ]
[      [ {BIN } ] ]

[ { CARDID } ] [ { CASEQ } ] [ { CKSEQ } ] [ { COBOL85 } ]
[ { NCARDID } ] [ { } ] [ { } ] [ { } ]
[ { DCARDID } ] [ { NCASEQ } ] [ { NCKSEQ } ] [ { COBOL74 } ]

[ { CODAPND } ] [ { DCLXREF } ] [ { DDLIST } ] [ { DEBUG } ]
[ { } ] [ { BDCLXREF } ] [ { } ] [ { } ]
[ { NCODAPND } ] [ { NDCLXREF } ] [ { NDDLIST } ] [ { NDEBUG } ]

[ { DEBUGMD } ] [ { DIAGIN } ] [ { DMAP } ] [ { EXPSIZE } ]
[ { NDEBUGMD } ] [ { DIAGAFT } ] [ { } ] [ { } ]
[ { DDEBUGMD } ] [ { DIAGBEF } ] [ { NDMAP } ] [ { NEXPSIZE } ]

[ { LFATAL } ] [ { LIST } ] [ { MAP } ] [ { OBJ } ]
[ { } ] [ { NLIST } ] [ { } ] [ { } ]
[ { LOBSERV } ] [ { NCLIST } ] [ { NMAP } ] [ { NOBJ } ]
[ { CMTLIST } ]

[ { OBSERV } ] [ { OOBSEV } ] [ { PMAP } ] [ { REFMDCK } ]
[ { NOBSERV } ] [ { } ] [ { } ] [ { } ]
[ { OBSBEF } ] [ { OFATAL } ] [ { NPMAP } ] [ { NREFMDCK } ]
[ { OBSAFT } ]

[ { SILENT } ] [ { SUBCK } ] [ { SUBOPT } ] [ { WARN } ]
[ { } ] [ { } ] [ { } ] [ { NWARN } ]
[ { NSILENT } ] [ { NSUBCK } ] [ { NOPT } ] [ { WARNBEF } ]
[ { WARNAFT } ]

[ { XLN } ] [ { XREF } ]
[ { } ] [ { BXREF } ]
[ { ILN } ] [ { NXREF } ]

[ SIZEOPT = (size-parameters) ]
[ STEPOPT = (step-parameters) ]

[ WORK1 = { (seq1-output-file-descr) } ]
[ { (work-file-description ) } ]

[ WORK2 = { (seq1-output-file-descr) } ]
[ { (work-file-description ) } ]

[ WORK3 = (work-file-description) ] ;

COMMENT
(JCRM)
'comments-string';
```

JCL Statements

COMPARE (DMUT)

```
[resource-reservation-parameters] [NERROR]

{INFILE1= (input-file-description) }
{INFILES1=((input-file-description) }
  [(input-file-description)].) }
{INSET=(input-fileset-description) }
  [INDEF1=(define-parameters)]

{INFILE2=(input-file-description) }
{INFILES2=(input-file-description }
  [(input-file-description)].) }
  [INDEF2=(define-parameters)]

{OUTFILE=(output-file-desc)[OUTDEF=(define params }
  [COMPACT]) }
{OUTSET=(output-file-set-desc) [OUTALC=(allocate }
  parameters)] }

[SYSOUT=(sysout parameters) ]

[PRTFILE=(print-file-description)
  [PRTDEF=(define-parameters)]
  [PRTALC [= (allocate-parameters)]]]

[PRTOUT=(sysout-parameters)]

[COMFILE=(input-file-description)

[COMDEF=(define-parameters)]

[START={ {digits8}
  { 1 } ]

[INCR = { {digits8}
  { 1 } ]

[HALT = digits8]

[PRINT=( [FORMAT = { ALPHA }
  { BOTH } ] [TITLE = 'string114'] )
  { HEXA } ]

[TAPEND = { {digits3}
  { 1 } ]

[ { EQUAL | DELTA } ]

[FMEDIA]

[IFEXFSN = digit4]

[OFEXFSN = digit4]

[SIZEOPT = (size-parameters)]

[STEPSOPT = (step-parameters)];
```

JCL Pocket Guide

JCL Statements

CONSOLE (JCRM)

```
[user-name];
```

CREATE (DMUT)

```
[resource-reservation parameters] [NERROR]

{INFILE = (input-file-description)          }
{INFILES = ((input-file-description)        }
             (input-file-description)]...}
{INSET = (input-file-set-description)      }
{                                           }

[INDEF = (define-parameters)]

{OUTFILE=(output-file-desc)[OUTDEF=(define params
                             [COMPACT])    }
{OUTSET=(output-file-set-desc) [OUTALC=(allocate
                             parameters)] }

[SYSOUT = (sysout-parameters)]

[PRTFILE = (print-file-description)
 [PRTDEF = (define-parameters)]
 [PRTALC [= (allocate-parameters)]]]

[PRTOUT = (sysout-parameters)]

[COMFILE = (input-file-description)]

[COMDEF = (define-parameters)]

[START = { {digits8}
           { 1 }
         ]

[INCR = { {digits8}
          { 1 }
        ]

[HALT = digits8]

[FILLER = { 'string_1'
            { hexa_2 }
          ]

[PRINT = ([FORMAT = {HEXA }
              {ALPHA} ] [TITLE = 'string114'])
          {BOTH }

[APPEND]

[FILELOAD = {ORDER }
            {NORDER}

[KEYLOC = digits5]
```

JCL Pocket Guide

```
[TAPEND = {digits3}
          {
            1
          }

{ IMPORT }
{ EXPORT }

[FMEDIA]

[IFEXFSN = digit4]

[OFEXFSN = digit4]

[SIZEOPT = (size-parameters)]
[STEOPT = (step-parameters)];
```

DATA (JCRM)

```
{member-name }[{(output-library-description)}]
{[alphanum17]*}[{SITE.IN }]}

[USER = user-name] [PROJECT = project-name]

[BILLING = billing-name]

[ {DATA } ]
[ {DATASSF} ]
[ {COBOL } ]
[TYPE = {COBOLX } ]
[ {RPG } ]
[ {FORTRAN} ]
[ {GPL } ]
[ {JCL } ]

[FORMAT = (digits3, digits3, digits3, digits3)]

[ {EOF } ]
[END = {ENDDATA } ]
[ {'string8'} ]

[ENDCHAR = 'string1']

[CONTCHAR = 'string1']

[ {110 } ]
[RECSIZE = { } ]
[ {digits3} ]

[REPLACE] [PRINT] [CKSTAT] ;
```


JCL Statements

DEALLOC (DMUT)

```
{[{resource-reservation-params} [NERROR] ]}
{
  {OUTSET = (output-file-set-description) }
  { [PRTFILE = (print-file-description) ] }
  { [PRTDEF = (define-parameters) ] }
  { [PRTALC [= (allocate-parameters)]] ] }
  { [PRTOUT = (sysout-parameters) ] }
}
{
  {
    {RESIDENT }
    {ext-file-name [ { } ] }
    {
      {DEVCLASS = device-class, }
      { MEDIA=media-list }
    }
  }
}
{
  {
    {TEMPRY }
    {filestat = UNCAT }
  }
}
{[ { {CAT } ] } ] }
{ {TEMPRY } }

[MOUNT = digit1] [FIRSTVOL = digits3]
[CATALOG = digit1]

[UNCATNOW]

[FORCE]

[BYPASS]

[ERASE]

[END = UNLOAD | LEAVE ]

[SIZEOPT = (size-parameters)]

[STPEOPT = (step-parameters)];
```

JCL Pocket Guide

DEFINE

(JCRM)

internal-file-name

```
[JOURNAL = {AFTER }]  
[           {BEFORE}]  
[           {NONE }]  
[           {BOTH }]  
  
[CKPTLIM = {digits8 [EOV]}]  
[           {NO }]  
[           {EOV }]  
  
[NBBUF = digits5]  
  
[BPB = digits3]  
  
[ {SYSOUT }]  
[ {NSYSOUT}]  
  
[ERROPT = {SKIP }]  
[           {ABORT }]  
[           {IGNORE }]  
[           {RETCODE}]  
  
[WRCHECK]  
  
[OPTIMIZE]  
  
[ {BPIOC}]  
[ {FRIOC}]  
  
[ {RAHEAD}]  
  
[ {KEYLOC = digits5}]  
[ {INKEYLOC = digits5}]  
  
[ {DLREC }]  
[ {NDLREC}]  
  
[ {TRUNCSSF}]  
[ {NTRNCSSF}]  
  
[ {COMPACT }]  
[ {NCOMPACT}]  
  
[FPARAM]  
  
[LTRKSIZE = digits5]  
  
[FILEORG = {SEQ }]  
[           {RELATIVE}]  
[           {INDEXED }]  
[           {LINKQD }]  
[           {NONE }]  
  
[KEYSIZE = digits3]  
  
[CISIZE = digits5]  
  
[CIFSP = digits2]
```

JCL Statements

JCL Pocket Guide

```
[BUFFPOOL = alphanum4]

[READLOCK = {NORMAL}]
[          {EXCL  }]
[          {STAT  }]

[LOCKMARK]

[FILEFORM = {UFAS  }]
[          {ANSI  }]
[          {NSTD  }]
[          {LINKQD}]
[          {NONE  }]

[BLKSIZE = digits5]

[RECSIZE = digits5]

[RECFORM = {F  }]
[          {V  }]
[          {U  }]
[          {FB  }]
[          {VB  }]

[FUNCMASK = hexa 8]

[BLKOFF = digits3]

[ {CONVERT  } ]
[ {NCONVERT} ]

[DATACODE = {BCD  }]
[          {ASCII }]
[          {EBCDIC}]

[COLLATE = {BCD  }]
[          {ASCII }]
[          {EBCDIC}]

[ {BSN  } ]
[ {NBSN} ]

[ {PRINTER = (printer-options) } ]
[ {TN      = (terminal-options) } ]

Where printer-options have the form:

[ {SLEW  } ]
[ {NSLEW} ]

[MARGIN = digits3]

[PRDEN = {6}]
[       {8}]

[FORMHT = digits3]

[HOFF = {digits3}]
[       { 1 } ]
```

JCL Statements

JCL Pocket Guide

```
[FF1 = {digits3  
[ {value of FORMHT} ]  
  
[FF2 = {digits3}]  
[ { 0 } ]  
  
[CHi = (digits3 [digits3] ...)]
```

Where terminal-options have the form:

```
[{PROMPT = char12}]  
[ {NPROMPT } ]  
  
[EOF = char4]  
  
[ {MSG } ]  
[ {NMSG} ]  
  
[ {SLEW } ]  
[ {NSLEW} ]  
[ MARGIN = digits3 ]  
[ PRDEN = {6} ]  
[ { 8 } ]  
[ FORMHT = digits3 ]  
  
[ HOF = {digits3} ]  
[ { 1 } ]  
  
[FF1 = {digits3 } ]  
[ {value of FORMHT} ]  
  
[FF2 = {digits3}]  
[ { 0 } ]  
  
[CH1 = (digits3 [digits3] ...)];
```

DISPLAY (IOF2)

VALUES

```
[ {SL } ]  
[ {CU } ]  
[ {LM } ]  
LIB [ = {SM } ]  
[ {MAC} ]  
[ {MST} ]  
[ {BIN} ]  
[ {ALL} ]
```

SYNTAX = identifier8 ;

JCL Statements

DUMPJRNL (FRFU)

```
TDS = identifier4

OUTFILE = (sequential-output-file-description)

[OUTFILE = (define-parameters)]

BEGDATE = yy.mm.dd/hh[.mm[.ss[.msmsms]]]

[ENDDATE = yy.mm.dd/hh[.mm[.ss[.msmsms]]];
```

EDIT (TEUG)

```
COMFILE = (sequential-input-file-description)
          [COMDEF = (define-parameters)]

[LIB = { TEMP
        {
          output-library-description
        }
      } ]

[PRTFILE = (print-file-description)
           [PRTDEF = (define-parameters)]]

[PRTOUT = (sysout-parameters)];
```

Note: For EDIT commands see the Text Editor User Guide.

ENDDATA; (JCRM)

ENDINPUT (JCRM)

```
[input-enclosure-name];
```

ENDJOB; (JCRM)

ENDSTEP; (JCRM)

EXDIR

```
'command [;command]...';
```

EXECUTE

(JCRM)

```

{[INFILE =] {sequential-input-file-desc} }
{ member-name [INLIB =] (input-library-desc)}

[VALUES = ([param-value1] [param-value2]      ]
[           [keyword1 = keyword-value1]      ]
[           [keyword2 = keyword-value2] ..  )]

[PRTFILE = (print-file-description)]
[   [PRTDEF = (define-parameter)] ]

[PRTOUT = (sysout-parameters)]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)] ;
    
```

FILALLOC

(DMUT)

```

[resource-reservation-parameters] [NERROR]

  [{INFILE = (input-file-description) } ]
  [{INSET = (input-file-set-description)}]

  {OUTFILE = (output-file-description) }
  {OUTSET = (output-file-set-description)}

  [OUTDEF = (define-parameters)]

  {OUTALC [= (allocate-parameters)] }
  {COMFILE = (input-file-description)
    [COMDEF = (define-parameters)]}
  {COMMAND = 'command-list' }

  [PRTFILE = (print-file-description)
    [PRTDEF = (define-parameters)]
    [PRTALC [= (allocate-parameters)]]]

  [PRTOUT = (sysout-parameters)]
  [FMEDIA]
  [SIZEOPT = (size-parameters)]
  [STEPOPT = (step-parameters)];
    
```


JCL Statements

FILCHECK (DMUT)

```
external-file-name

    {RESIDENT
    [{DEVCLASS = device-class, MEDIA = volume-list}]
    {CATALOG = digit1}

    [SIZEOPT = (size-parameters)]

    [STEPOPT = (step-parameters)];
```

FILDUPLI (DMUT)

```
[resource-reservation-parameters] [NERROR]

    {INFILE = (input-file-description) }
    {INSET = (input-file-set-description)}

    [INDEF = (define-parameters)]

    {OUTFILE = (output-file-description) }
    {OUTSET = (output-file-set-description) }

    [OUTDEF = (define-parameters)]
    [OUTALC = (allocate-parameters)]

    [PRTFILE = (print-file-description)
    [PRTDEF = (define-parameters)]
    [PRTALC [ = (allocate-params)]]]

    [PRTOUT = (sysout-parameters)]

    [TAPEND = { 1 }
    {digits3}]

    [FLOW = digits3]

    [UPDJRNL]

    [FMEDIA]

    [IFEXFSN = digit4]

    [OFEXFSN = digit4]

    [SIZEOPT = (size-parameters)]

    [STEPOPT = (step-parameters)];
```

FILLIST

```
[resource-reservation-parameters] [NERROR]

  {INFILE = (input-file-description)      }
  {INSET = (input-file-set-description)   }
  {ALL                                     }
  {[CONTROL] [ORG] [SPACE] [USAGE] [SUBFILES]}
  {[SPECIFIC] [SAVINFO]}

      [OUTFILE = (output-file-description)
      [OUTDEF = (define-params)
      [OUTALC = (allocate-params)]]]

  [APPEND]

  [PRTFILE = (print-file-description)
  [PRTDEF = (define-params)
  [PRTALC [= (allocate-params)]]]

  [PRTOUT = (sysout-parameters)]
  [IFEXFSN = digit4]
  [SIZEOPT = (size-parameters)]
  [STEPOPT = (step-parameters)];
```

**FILMAINT
(DMUT)**

```
{FILE = (output-file-description)      }
{INFILE = (input-file-description)     }
{ [INDEF = (define-parameters)]}

{COMMAND = 'command-list'              }
{COMFILE = (input-file-description)     }
{ [COMDEF = (define-parameters)]}

[PRTFILE = (print-file-description)
[PRTDEF = (define-parameters)
[PRTALC [= (allocate-params)]]]

[PRTOUT = (sysout-parameters)]

[IFEXFSN = digit4]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)];
```

JCL Statements

FILMODIF (DMUT)

Statement form 1:

```
FILE = (external-file-name

{
  {RESIDENT
  {FILESTAT = UNCAT}{DEVCLASS = device class
  {MEDIA = (vol-name [vol-name])
  {FILESTAT = CAT} [CATALOG = digit1] [UNCATNOW]
}

[ MAXSIZE = digits 9]
[ FIRSTVOL = digits2] [LASTVOL = digits2]
[ MOUNT = digits2])

[NEWNAME = external-file-name]

[
  {ddd }
[EXPDATE = {YY/DDD } ]
[
  {YY/MM/DD}]

[ {FILESTAT = UNCAT
[ {FILESTAT = CAT} [CATALOG = digit1] [CATNOW]} ]

[FORCE]
[CLRDATA]
[SIZEOPT = (size-parameters)]
[STEPOPT = (step-parameters)];
```

or Statement form 2:

```
OUTSET = (output-fileset-description)

[EXPDATE = {ddd }
  {yy/ddd } ]
  {yy/mm/dd }

[ {FILESTAT = UNCAT
[ {FILESTAT = UNCAT} [CATALOG = digit 1] [CATNOW]} ]

[UNCATNOW]
[FORCE]
[CLRDATA] [MAXSIZE = digit 9]

[PRTFILE = (print-file-description)
  [PRTDEF = (define-parameters)
  [PRTALC = [(allocate-parameters)]]

[SIZEOPT = (size-parameters)]
[STEPOPT = (step-parameters)];
```

FILREST
(DMUT)

```
[resource-reservation-parameters] [NERROR]
    {INFILE = (input-file-description) }
    {INSET = (input-file-set-description)}

    {OUTFILE = (output-file-description) }
    {OUTSET = (output-file-set-description)}

[OUTALC [ = (allocate-parameters)]]

[PRTFILE = (print-file-description)
 [INDEF = (define-parameters)]
 [PRTALC [ = (allocate-params)]]]

[PRTOUT = (sysout-parameters)]

[NAME = {star-expression }
 {external-file-name}]

[SKIP = { 0 }
 {digits3}]

[FLOW = digits3]

[NBBUF = {1}
 {1}]
 {2}

[NCKDATE]

[FMEDIA]

[IFEXFSN = digit4]

[SIZEOPT = (size-parameters)]

[STEOPT = (step-parameters)];
```

JCL Statements

FILSAVE (DMUT)

```
[resource-reservation-parameters] [NERROR]

  {INFILE = (input-file-description) }
  {INSET = (input-file-set-description)}

  {OUTFILE = (output-file-description) }
  {OUTSET = (output-file-set-description)}
  {OUTDEF = (define-parameters) [COMPACT]}

[OUTALC [ = (allocate-parameters)]]

[PRTFILE = (print-file-description)]
  [PRTDEF = (define-parameters)]
  [PRTALC [ = (allocate-params)]]]

[PRTOUT = (sysout-parameters)]

[SAVEMODE = {CREATE}
             {APPEND}]

[NAME = {star-expression }
        {external-file-name}]

[SKIP = { 0 }
        {digits3}]

[FLOW = digits3]

[NBBUF = {1}
         {2}]

[EXPORT]

[FMEDIA]

[OUTDEF = (define-parameters)]

[OFEXFSN = digit4]

[SIZEOPT = (size-parameters)]

[STPEOPT = (step-parameters)];
```

FILTR (Statement form 1:)

```
[CREATE = {NO|NEW|KEEP|REPLACE}],
[TYPE = {SL|CU|LM|BIN|SM}],
INFILE = (assign-parameter-group)
[INDEF = (define-parameter-group) ]
OUTFILE = (assign-parameter-group)
[OUTALC = (allocation-parameter-group) ]
[OUTDEF = (define-parameter-group) ]
[USER = user]
[PROJECT = project ]
[BILLING = billing ]
[PASSWORD = password ]
[TRACE ]
[ {WAIT = nn | NOWAIT } ]
[ {APPEND = bool } ] [ { BINARY | NBINARY } ]
[ {RESTART } ]
[ {START = nnnnn } ] [ { COMPACT | NCOMPACT } ] ;
```

FILTR (Statement form 2:)

```
FILE = (assign-parameter-group),
NEWNAME = new-file-name ;
```

FILTR (Statement form 3:)

```
FILE = (assign-parameter-group),
DELETE;
```

FORMGEN
(FORM)

```
[BINLIB = (output-library-description)]
[SLLIB = (output-library-description)]
[OUTFILE = UFAS indexed-file-literal]

[FSSHARE = {ONEWRITE}
           {NORMAL }];
           {MONITOR }
```

JCL Statements

FOR77 (F7UG)

```
{ INFILE = (sequential-input-file-description) }
{
  { *input-enclosure-name }
  { { INLIB = (input- } }
  { { INLIB1 library- } }
  SOURCE = { { member-name { INLIB2 description } } }
  { { INLIB3 } }
  { { (member-name[member-name]...) } }
  { { (star-name[star-name]...) } }
}

[ { TEMP } ]
[ CULIB = { (output-library-description) } ]

[ { NDEBUG } ] [ { NDEBUGMD } ] [ { NROUND } ] [ { SUBCK } ] [ { OBJ } ]
[ { DEBUG } ] [ { DEBUGMD } ] [ { ROUND } ] [ { NSUBCK } ] [ { NOBJ } ]

[ DSEGMAX = nnn[K] ] [ PSEGMAX = nnn[K] ] [ INIT = hh ]

[ { OBJA } ] ]
[ CODE = { } ] ]
[ { OBJCD } ] ]

[ { GCOS7 } ] [ { NLIST } ] [ { NMAP } ] [ { NOBSERV } ]
[ LEVEL = { GCOSLE } ] [ { } ] [ { } ] [ { } ] ]
[ { SIRIS8 } ] [ { LIST } ] [ { MAP } ] [ { OBSERV } ] ]

[ { 0 } ] ]
[ { 1 } ] [ { PACKAGE = { NO } } ] ]
[ OPTIMIZE = { 2 } ] [ { OPEN } ] ]
[ { 3 } ] [ { CLOSE } ] ]
[ { 4 } ] ]

[ { PRTFILE = (print-file-description) } ] ]
[ { } ] ]
[ { TEMP } ] ] ]
[ PRTLIB = { (print-library-description) } ] ]
[ { } ] ]

[ { XREF } ] [ { PI } ] [ { WARM } ] [ { SILENT } ] [ { NADP } ]
[ { NXREF } ] [ { NPI } ] [ { NWARM } ] [ { NSILENT } ] [ { ADP } ] ;
```

GMERGE (SMUG)

```
INFILE1 = (asg1) [ INDEF1 = (def1) ]
INFILE2 = (asg2) [ INDEF2 = (def2) ]
INFILE3 = (asg3) [ INDEF3 = (def3) ]
.
.
.
INFILEi = (asgi) [ INDEFi = (defi) ]

OUTFILE = (asg) [ OUTDEF = (def) ] [ OUTALC [= (alc) ] ]

COMFILE = (asg) [ COMDEF = (def) ]

[ PRTFILE = (asg) [ PRTDEF = (def) ] [ PRTALC [= (alc) ] ] ]
```

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```
[SYSOUT = (sysout)]  
  
[PRTOUT = (sysout)]  
  
      {AUDIT}  
      {PARAM}  
[REPORT = { }]  
      {ALL }  
      {NONE }  
  
[BUFFER = digits3]  
  
      {char1}  
[FILLER = { }]  
      {hexa2}
```

GPL (GPUG)

```
{SOURCE = *input-enclosure-name }  
{ }  
{SOURCE = {mb-name } }  
{SOURCE = {ALL } }  
{ (mb-name[ ,mb-name]...) } }  
{ INLIB = {(input-library)} } }  
{ {TEMP } } }  
  
[CULIB = [ {TEMP } ] ]  
[ { (output-library-description) } ] ]  
  
[ {NDEBUG} ] [ {NDEBUGMD} ] [ {NDCLXREF} ] [ {ILN} ] [ {OBJ} ] ]  
[ {DEBUG } ] [ {DEBUGMD } ] [ {DCLXREF } ] [ {XLN} ] [ {NOBJ} ] ]  
  
[WARN ] [OBSERV ] [MAP ]  
[NWARN ] [NOBSERV ] [NMAP ]  
  
[ PRTFILE = (print-file-description) ] ]  
[ ] [ {NXREF} ] ]  
[ {TEMP } ] [ {XREF } ] ]  
[PRTLIB = { } ] ]  
[ { (print-library-description) } ] ]  
  
[ {GPL} ] [ {NLIST} ] ]  
[LEVEL = { } ] [ { } ] [BRIEF] ]  
[ {PL1} ] [ {LIST } ] ]  
  
[LIST ] [CASEQ ] [ {OBJA } ] ]  
[ ] [ ] [CODE = { } ] ]  
[NLIST] [NCASEQ] [ {OBJCD} ] ]  
  
[ {0} ] ]  
[ {1} ] ]  
[OPTIMIZE = {2} ] [SILENT]; ]  
[ {3} ] ]  
[ {4} ] ]
```


JCL Statements

GSORT (SMUG)

```
{ {INFILE = (asg) }
{ {INFILES = (asg1),(asg2),...(asgn)} [INDEF=(def)] }
{ ]OUTFILE = (asg) [OUTDEF = (def)] }
{ [OUTALC[=(alc)]] }
{ [SYSOUT=(sysout)] }
{ }
[ ]
[FILE = (asg)[DEF = (def)] ]

COMFILE = (asg) [COMDEF = (def)]

[PRTFILE = (asg)[PRTFDEF = (def)]]
[PRTALC[=(alc)]] [PRTOUT = (sysout)]]]

[LOGFILE = (asg)[LOGDEF = (def)]
[LOGALC[=(alc)]]]]
[LOGOUT = (sysout)]

[ {WKFILE = (asg)[WKDEF = (def)][WKALC = (alc)] } ]
[ { } ]
[ {WKASG1 = (asg)[WKALC1 = (alc)] } ]
[ {WKASG2 = (asg)[WKALC2 = (alc)] } ]
[ {WKASG3 = (asg)[WKALC3 = (alc)] } ]
[ {... } ]
[ {... } ]
[ {... } ]
[ {WKASGn = (asg)[WKALCn = (alc)] } ]

[ {AUDIT} ]
[REPORT = {PARAM} ]
[ {ALL} ]
[ {NONE} ]

[SIZE = digits8]

[REPEAT]

[ {ABORT} [ {PRINTID}]]
[ {PRINT}]]]
[INVREC = { } [ERROPT = { }]]
[ {CONTINUE} [ {LOG} ]]]
[ {IGNORE} ]]]

[START = digits10] [HALT = digits10]

[MEM]

[NBSORT = digits2]

[ {char1} ]
[FILLER = { }];
[ {hexa2} ]
```

GSORTWORK (Statement form 1. Used for mono-processing programs:) (SMUG)

```
WKFILE = (asg) [WKALC = (alc)] ;
```

GSORTWORK
(Statement form 2. Used for multi-processing programs:)

```
WKFILE=(asg) [,WKALC=(alc)]; |
[MODALC = (alc),] WKASG1 = (asg) [,WKALC1=(alc)]
                    WKASG2 = (asg) [,WKALC2=(alc)]
                    .
                    .
                    WKASGn = (asg) [,WKALCn=(alc)];
```

INPUT
(JCRM)

input-enclosure-name

```
[TYPE = {DATA   } ]
[       {COBOL  } ]
[       {RPG    } ]
[       {FORTRAN} ]
[       {JCL    } ]
[       {COBOLX } ]
[       {GPL    } ]
[       {DATASSF} ]

[FORMAT = (digits3, digits3, digits3, digits3)]

[END = {ENDINPUT } ]
[      {DOLLAR   } ]
[      {EOF      } ]
[      {MATCH    } ]
[      {'string8'} ]

[ENDCHAR = 'string1']

[CONTCHAR = 'string1']

[PRINT] [CKSTAT]

[ {CVALUES} ]
[ {JVALUES} ]

[INFILE = {(diskette-file-name
           { *
           {MEDIA = {
           {(volume-name[volume-name]...)}}}}];
```

INVOKE
(JCRM)

```
{*input-enclosure-name1
 { member-name [(input-library-description)]}
 { [( SYS )]}

[VALUES=( [parameter-value1 [parameter-value2]...]
 [keyword1=keyword-value1 [keyword2=keyword-
value2]...] )]

[UPDATE=*input-enclosure-name2]
 [LIST = ALL];
```

JCL Statements

JOB (JCRM)

```
job-name  
    [USER = user-name]  
    [PROJECT = project-name]  
    [BILLING = billing-name]  
    [NSTARTUP]  
    [LIST = {SOURCE}]  
    [ {NO } ]  
    [ {ALL } ]  
    [JOR = {NORMAL}]  
    [ {NO } ]  
    [ {ABORT } ]  
    [CLASS = {identifier1}]  
    [{HOLD } ]  
    [{HOLD = digit2}]  
    [HOLDOUT]  
    [PRIORITY = digit1]  
    [RECSIZE = {110 } ]  
    [ {digit3} ]  
    [REPEAT]  
    [HOST = {name4}]  
    [JOB LANG = {GCL}]  
    [ {JCL} ]  
    [EXPVAL];
```

JOBLIB (TDSG)

```
SM [library-name [,library-name-2  
    [,library-name-3]]];
```

JCL Pocket Guide

JUMP (JCRM)

```
{label-name}
{CONTINUE }

[ {STATUS} {EQ}      ]
[ {SEV } {NE}      ]
[ {SEV } {GE} digit5];
[ {SWi } {GT}      ]
[ {IOF } {LE}      ]
[ {LT} ]
```

LET (JCRM)

```
{ 0 }
{SWi{ } }
{ 1 } };
{SW hexa8 }
{SEV digit1 }
```

LIB (LMUG)

```
[ {SL } ]
[ {CU } ]
[ {LM } ] [[ INLIB1 = ] {TEMP
[ {SM } ] {input-library-description}]]
[ {BIN} ]

[[ INLIB2 = ] {TEMP
{input-library-description}]]

[[ INLIB3 = ] {TEMP
{input-library-description}]]

[[ INLIB4 = ] {TEMP
{input-library-description}]]

[[ INLIB5 = ] {TEMP
{input-library-description}]];
```

JCL Statements

LIBALLOC (DMUT)

```
{ SL }
{ CU }
{ LM }
{ SM }
{ BIN }

(external-file-name

[ {VOLSET[={DFLT|volset-name}} ]}
[ {RESIDENT } ]}
[ {DEVCLASS=
  [ { dev-class MEDIA=(media-name [media-name]...) } ]}

{TEMPRY
  {CAT [CATALOG = digit1] [CATNOW]}}
{FILESTAT = {UNCAT } }
{TEMPRY } }

SIZE = (digits8 [,digits5])

UNIT = {CYL }
      {BLOCK}
      {100KB}
      {TRACK}

[ {ddd } ]
[ {EXPDATE = {yy/ddd } } ]
[ {yy/mm/dd} ]

{DIRSIZE = digits3}
{MEMBERS = digits4}

[ MAXSIZE = digits8] [COMPACT];
```

LIBDELET
(DMUT)

```
[resource-reservation-parameters] [NERROR]

  {output-file-description
  {OUTSET = (output-file-set-description)}

[OPTIONS = {
  {DIR      }
  {DEALLOC}

[PRTFILE = (print-file-description)
  [PRTDEF ) (define-parameters)]
  [PRTALC [ = (allocate-params)]]]

[PRTOUT = (sysout-parameters)]

[UNCATNOW]

[BYPASS]

[FORCE]

[ERASE]

[SIZEOPT = (size-parameters)]

[STPEOPT = (step-parameters)];
```

JCL Statements

LIBMAINT (LMUG)

```
{SL }
{CU }
{LM }
{SM }
{BIN}

[INFILE = (sequential-input-file-description)

      [INDEF = (define-parameters)]]

[ { {TEMP
  [LIB = {
        (output-library-description)
      }
    ]
  [OUTFILE = (sequential-output-file-description)]
  [ {
        [OUTDEF=(define-parameters)
      ]
    }
    ]
    {COMMAND='command[command]...'
    {COMFILE=(sequential-input-file-description)}
    { [COMDEF=(define-parameters)
    ]
    }
  ]
  [PRTFILE = (print-file-description)
  [PRTDEF = (define-parameters)]]
  [PRTOUT = (sysout-parameters)];
```

Note: The LIBMAINT (LIBRARY MAINTENANCE) commands are described in the Library Maintenance Reference Manual.

LINKER (LNKR)

```
{load-module-name}
{*}

[INLIB = (input-library-description)]

[ {
  [OUTLIB = {
        (output-library-description)
      }
    ]
  [ {TEMP
    ]
    ]
  [ {COMFILE = (sequential-input-file-description)}
  [ {COMMAND = 'command [command]...'
  [ {entry = entry-name [COMFAC]
  ]
  ]
  ]
  [ {PRTFILE = (print-file-description)
  [ {PRTLIB = (print-library-description)
  ]
  ]
  [STEPOPT = (step-parameters) ] ;
```

MERGE
(SMUG)

```
INFILE1 = (sifd [smdp])
INFILE2 = (sifd [smdp])
[INFILE3 = (sifd [smdp])
[INFILE4 = (sifd [smdp])
[INFILE5 = (sifd [smdp])
[INFILE6 = (sifd [smdp])
[INFILE7 = (sifd [smdp])
[INFILE8 = (sifd [smdp])]]]]]]
OUTFILE = {(sofd[smdp]
            { (SYS.OUT, SYSOUT, DATAFORM=SSF) }
COMFILE = (sifd)
[           {AUDIT} ]
[           {PARAM} ]
[REPORT =  {      } ]
[           {ALL  } ]
[           {NONE } ]
[PRTFILE = (print-file-description)]
[BUFFER = digits3];
```

MESSAGE
(JCRM)

```
'string105' ;
```

MIRFIL
(DMUT)

```
MAINVOL = (DEVCLASS = device-class MEDIA = volname6)
COPYVOL = (DEVCLASS = device-class MEDIA = volname6) ;
```

MIRSTART
(DMUT)

```
MAINVOL = (DEVCLASS = device-class MEDIA = volname6)
COPYVOL = (DEVCLASS = device-class MEDIA = volname6)
[NEW = volname6] ;
```


JCL Statements

MODVL

```
[parameter-val1 [, parameter-val2] ... ]
```

```
[keyword1 = keyword-val1  
 [keyword2 = keyword-val2] ...];
```

OUTVAL

(JCRM)

```
[CLASS = identifier1]
```

```
[PRIORITY = digit1]
```

```
[WHEN = {JOB      }]  
 [      {STEP    }]  
 [      {IMMED   }]  
 [      {DEFER   }]  
 [      {digits5}]
```

```
{HOLD }  
{NHOLD}
```

```
[NAME = identifier8]
```

```
[{BANNER           }]  
 [{NBANNER         }]  
 [{BANINF = (alphanum12[alphanum12]...)}]
```

```
[COPIES = digits2]
```

```
[DEVCLASS = device-class  
 [MEDIA = volume-name]]
```

```
[DEST = station-name]
```

```
[{SLEW }]  
 [{NSLEW}]
```

```
[{DELETE }]  
 [{NDELETE}];
```

JCL Pocket Guide

PASCAL (PAUG)

```
{SOURCE = *input-enclosure-name           }
{SOURCE = (member-name[member-name]...)  }

[{{INLIB = (input-library-description)}} ]
[{{INLIB1           }}]                  }
[{{INLIB2           }}]                  }
[{{INLIB3           }}]                  }

{SOURCE = ('star-name'['star-name']...)   }

[{{INLIB = (input-library-description)}} ]
[{{INLIB1           }}]                  }
[{{INLIB2           }}]                  }
[{{INLIB3           }}]                  }

{ INFILE = (sequential-input-file-description) }
{   [CULIB = {TEMP           }]}         }
{   {output-library-description}        }

[{{NEXPLIST}}] [{{NSILENT}}] [{{CKSEQ}}] [{{ASCII}}]
[{{EXPLIST}}] [{{SILENT}}] [{{NCKSEQ}}] [{{EBCDIC}}]
  [{{WARN}}]
  [{{NWARN}}]

[{{NDEBUG}}] [{{NDEBUGMD}}] [{{SUBCK}}] [{{OBJ}}]
[{{DEBUG}}] [{{DEBUGMD}}] [{{NSBUCK}}] [{{NOBJ}}]

[{{LFATAL}}] [{{NLIST}}] [{{NMAP}}] [{{NOBSERV}}] [{{ILN}}]
[{{OBSERV}}] [{{LIST}}] [{{MAP}}] [{{OBSERV}}] [{{XLN}}]

[{{PRTFILE = (print-file-description)}}]
[{{   {TEMP           }}}}][{{NXREF}}]
[{{PRTLIB = {           }}}}][{{XREF}}]
[{{   {(print-library-description)}}}]

LEVEL = {ISO }
        {SOL };
        {GCOS7}
```

POOL (JCRM)

```
{{[1]}*}
[{{[digits2]}]device-class[MAX = digits2]}

{ device-name           };
```

JCL Statements

PREALLOC (DMUT)

(Statement form 1, for Disk Files:)

```
external-file-name [ EXPDATE = {ddd } ]
                   [ {yy/ddd } ]
                   [ {yy/mm/dd} ]

[ {BLOCK } ]
[ {CI } ]
[ {CYL } ] [ { 5 } ]
[UNIT = { } ] [MAXEXT = { } ]
[ {TRACK } ] [ {digits2} ]
[ {RECORD} ]
[ {100KB } ]
{UFAS = (UFAS file attributes)}
{EXTEND [SIZE = digits5]}

{SIZE=digits10 }
{VOLSET=(NAME={DFLT|volset-name}[SIZE=digits10]) }
{RESIDENT = (SIZE = digits10) }
{DEVCLASS = device-class }
{GLOBAL = (MEDIA = (volume-name }
[ {volume-name}...SIZE = digits10) }
{ }
{SPLIT = ((volume-name SIZE = digits8 [disk-addr]) }
[ (volume-name SIZE = digits8 [disk-addr]) ] ) }

[INCRSIZE = digits5]
[TEMPRY [WAIT] ]
FILESTAT = {CAT [CATALOG = digit1] [CATNOW] }
[UNCAT ]
[SIZEOPT = (size-parameters)]
[STEPOPT = (step-parameters)];
```

In this statement form, the disk-address for allocation is:

```
CYL = digits4 [TRACK = digits2] (VBO)
DATBLK = digits8 (FBO)
```

(Statement form 2, for Cataloged Tape Files:)

```
external-file-name [ EXPDATE = {ddd } ]
                   [ {yy/ddd } ]
                   [ {yy/mm/dd} ]

[ {UFAS } ]
[ {ANSI } ]
[ {FB } ]
[ {F } ]
[RECFORM = {U } ]
[ {V } ]
[ {VB } ]
[ {COMPACT} [NBSN]] )

EXTEND

DEVCLASS = device-class
```


JCL Statements

PRINT (DMUT)

```
[resource-reservation-parameters][NERROR]

  {INFILE = (input-file-description)          }
  {INFILES = ((input-file-description)
              [(input-file-description)]...)}
  {INSET = (input-file-set-description)       }

[INDEF = (define-parameters)]

[PRTFILE = (print-file-description)
 [PRTDEF = (define-parameters)]
 [PRTALC[ = (allocate-params)]]]

[PRTOUT = (sysout-parameters)]
[COMFILE = (input-file-description)]
[COMDEF = (define-parameters)]
[TITLE = 'string 114']

[FORMAT = {ALPHA}
           {HEXA }
           {BOTH }

[START = {digits8}
         {  1  }

[INCR = {digits8}
        {  1  }

[HALT = digits8 ]

[KEYLOC = digits5 ]

[TAPEND = {digits3}
          {  1  }

[IFEXFSN = digit4]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)];
```


JCL Statements

RUN (JCRM)

```
{[INFILE =] (sequential-input-file-descr)      }
{      [INDEF = (define-parameters)]          }
{      {member-name}                          }
{      {star-name} [INLIB =] (input-library-descr) }
{      }                                       }

[INFILE2 = (sequential-input-file-description)
 [INDEF2 = (define-parameters)]]

[INFILE3 = (sequential-input-file-description)
 [INDEF3 = (define-parameters)]]

[INFILE4 = (sequential-input-file-description)
 [INDEF4 = (define-parameters)]]

[CLASS = identifier2]

[HOLD]

[HOLDOUT]

[PRIORITY = digit1]

[JOBS = ([job-name1] [job-name2])]

[VALUES = ([parameter-value1] [parameter-value2]...
 [keyword1=keyword-value1
 [keyword2=keyword-value2]...])]

[{{SWITCHES = hexa8          }}]
[{{      PASS                }}]
[{{      }}                  }}]
[{{SWITCHi= {0} [SWITCHj= {0} ]...}}]
[{{      {1}      {1}      }}]

[DELETE]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)];
```

SEND (JCRM)

```
'string105''

[{{user-name}}]
[{{MAIN      }}];
```

JCL Pocket Guide

SETLIST (DMUT)

```
[resource-reservation-parameters] [NERROR]

[INSET = (input-file-set-description)
 [INDEF = (define-parameters)]]

[OUTSET = (output-file-set-description)
 [OUTDEF = (define-parameters)]]

[PRTFILE = (print-file-description)
 [PRTDEF = (define-parameters)]
 [PRTALC = [ = (allocate-parameters)]]]

[PRTOUT = (sysout-parameters)]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)];
```


JCL Statements

SHIFT (CATM)

generation-group-name

[CURGEN = alphanum7]

[AFTJRNL = {KEEP }]
 {CLEAR }

[FORCE]

[CATALOG = digit1]

[SYMGEN = alphanum5]

[END = {DEASSIGN }]
 {UNLOAD }

[ABEND = {DEASSIGN }]
 {UNLOAD }

[PRTFILE = (print-file-description)
 {PRTDEF = (define-parameters)}]

[PRTOUT = (sysout-parameters)];

SIZE (JCRM)

[declared-working-set]

[CHPPAGE = digits]

[NBBUF = digits3]

[POOLSIZE = digits] ;

JCL Pocket Guide

SORT **(SMRG)**

```
INFILE = (sifd [smdp])
[INFILE1 = (sifd)
[INFILE2 = (sifd)
[INFILE3 = (sifd)
[INFILE4 = (sifd)
[INFILE5 = (sifd)
[INFILE6 = (sifd)
[INFILE7 = (sifd)
[INFILE8 = (sifd) ]]]]]]]

OUTFILE = {(sofd [smdp] ) [REPLIN] }
          {(INFILE) }
          {(SYS.OUT SYSOUT [DATAFORM = SSF])}

COMFILE = (sifd)

[WORKDISK[S] =
[ {(extnl-file-name) } ]
[ { {CAT } } ]
[ { FILESTAT={UNCAT } } [CATALOG=digit1] } ]
[ { {TEMPRY } } ]
[ { SIZE = digits5 } ]
[ ]
[ [ {POOL,FIRST} ] ]
[ [ {POOL,NEXT } ] ]
[ [ {NPOOL } ] ]
[ ]
[ [ {RESIDENT } ] ]
[ [ {WORK } ] ]
[ [ {DEVCLASS=dvc MEDIA={ } } ] ]
[ [ {volume-name [...] } ] ]

[ [ {AUDIT} ] ]
[ [ {PARAM} ] ]
[REPORT = [ { } ] ]
[ [ {ALL } ] ]
[ [ {NONE } ] ]

[PRTFILE = (print-file-description)]
[SIZE = dec3]

[ [ {PRINTID} ] ]
[ [ {PRINT } ] ]
[ [ {ABORT } ] ] [ERROPT = { } ] ]
[INVREC = ( [ { } ] [ERROPT = { } ] ] ]
[ [ {CONTINUE} ] [ { } ] ]
[ [ {LOG } ] ] ]
[ [ {IGNORE } ] ] ]

[LOGFILE = (soft smdp) ] [REPEAT]

[START = dec10]
[HALT = dec10]

[SIZEOPT = (size-parameters)]
[STEPOPT = (step-parameters)];
```

JCL Statements

SORTIDX (DMUT)

```
OUTFILE = (output-file-description)

[WKDISK = ( {external-file-name}
            {SIZE = digits3 } )

{[FILESTAT = CAT] [CATALOG = digit1]
 {
 {RESIDENT
 {DEVCLASS = device-class }
 {FILESTAT = UNCAT] [ {VOLSET = volset-name }
 { [MEDIA = (volume-name
 { [volume-name]... ] } ] } ] } ] }

[SIZEOPT = (size-parameters)]

[STPEOPT = (step-parameters)];
```

SORTWORK (SMUG)

```
{ WKDISK } =
{ WKDISKS }

( { SIZE = digit5 [dvcmd]
  ( { external-file-name
    { [ FILESTAT = CAT CATALOG = digit1 } ] }
    { [ [ FILESTAT = UNCAT ] [dvcmd] } ] } )
```

where dvcmd is defined as follows:

```
{ RESIDENT
{ { DEVCLASS } = device-class
{ { DVC
{ { MEDIA } = { volname
{ { MD } = { (volname [volname...]) } } ;
```

JCL Pocket Guide

STEP (JCRM)

```
load-module-name (input-library-description)

[XPRTY = digit1]

[CPTIME = {9999999}]
           {digits7}

[ELAPTIME = {9999 } ]
            {digits4}

[LINES = {99999999}]
         {digits8}

        DUMP = {NO }
                {DATA [PRIVATE]}
                {ALL  [PRIVATE]}

[DEBUG [ = (sequential-input-file-description)]]

[OPTIONS = 'string4096']

[REPEAT]

[ {MAXMEM} ]
[ {MINMEM} ];
```

SWINPUT (JCRM)

```
{[INFILE]= (sequential-input-file-descr) }
{member-name [INLIB =] (input-library-descr) }
{
  { 'string105' [ANSWERS = ('string105' ) ] }
  { ['string105']... ) }
}{CONSOLE = { ('string105' ['string105'] ) } }
            { END = 'string8' } }
};
```

JCL Statements

SYSMAINT

(IOF3)

```
COMFILE = (input-file-description)

[PRTFILE = (print-file-description)]

[ {INFILE = (input-file-description)} ]
[ {INSST = (input-sst-description) } ]

[ {OUTFILE = (output-file-description)} ]
[ {OUTSST = (output-sst-description) } ]

[RESTFILE = (input-file-description)]

[SAVEFILE = (output-file-description)]

[      {NO   } ]
[DUMP = {      }];
[      {DATA} ]
```

SYSOUT

(JCRM)

```
internal-file-name

[CLASS = identifier1]

[PRIORITY = digit1]

[WHEN = {JOB      } ]
[      {STEP     } ]
[      {IMMED    } ]
[      {DEFER    } ]
[      {digits5} ]

[ {HOLD } ]
[ {NHOLD} ]

[NAME = identifier8]

[ {BANNER           } ]
[ {NBANNER          } ]
[ {BANINF = (alphanum12[alphanum12]...) } ]

[COPIES = digits3]

[DEVCLASS = device-class [MEDIA = volume-name]]

[DEST = alphanum8]

[ {SLEW } ]
[ {NSLEW} ]

[ {DELETE } ]
[ {NDELETE}];
```

UNCAT
(CATM)

object-name

```
[TYPE = {FILE }]  
        {GEN }  
        {DIR }  
        {FLINK}]
```

[FORCE]

[CATALOG = digit1]

```
PRTFILE = (print-file-description)  
          [PRIDEF = (define-parameters)]  
[PRTOUT = (sysout-parameters)];
```

JCL Statements

URINIT (SOGD)

```
COMFILE = (sequential-input-file-description)

[OUTFILE = {SYS.URCINIT
[      {(sequential-output-file-description)}}]

[INLIB = (input-library-description)]

[PRTFILE = (print-file)];
```

VALUES (JCRM)

```
[parameter-value1 [parameter-value2] ...]

[keyword1 = keyword-value1
[keyword2 = keyword-value2] ... ] ;
```

VOLCHECK (DMUT)

```
DEVCLASS = device-class
MEDIA = volume-name

[ { DELETE } ]
[ { } ]
[ { NDELETE } ]

[SIZEOPT = (size-parameters)]
[STEP OPT = (step-parameters)];
```

VOLCOMP
(DMUT)

```

INVOL1 = (DEVCLASS = device-class
          MEDIA = volume-name

          {NATIVE}
          [LABEL = { NONE }])
          { NSTD }

INVOL2 = (DEVCLASS = device-class
          MEDIA = volume-name

          {NATIVE}
          [LABEL = { NONE }])
          { NSTD }

[LIMIT = digits4]

[FORMAT = {ALPHA}
          {HEXA}
          {BOTH}]

[SKIP = { 0 }
        {digits3}]

[TAPEND = { 1 }
          {digits2}]

[BUFFER = digits5]

[PRTOUT = (sysout-parameters)]

[PRTFILE = (print-file-description)
          [PRTDEF = (define-parameters)]]

[SIZEOPT = (size-parameters)]

[STEOPT = (step-parameters)];
    
```


JCL Statements

VOLDUPLI
(DMUT)

OLD = (DEVCLASS = device-class
MEDIA = volume-name

[LABEL = {NATIVE}
{NONE}]])
{NSTD }

NEW = (DEVCLASS = device-class
MEDIA = volume-name

[LABEL = {NATIVE}
{NONE}]])

[DENSITY = {D6250}
{D1600}]

[TAPEND = { 1 }
{digits2}]

[BUFFER = digits5][SKIP = { 0 }
{digits3}]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)];

JCL Pocket Guide

VOLLIST (DMUT)

```
DEVCLASS = device-class
MEDIA = media-name

{SHORT
{ALL
[[[CONTROL][ORG][SPACE][USAGE][SUBFILES][SPECIFIC]]]
{[NAMES]
{[FREE]
{[COUNT]

[RATIO = {LIB | UFAS | ALL}]
[PREFIX = character-string]
[SORTEDBY = {NAMES | ADDRESS | SIZE}]

[OUTFILE = (output-file-description)
[OUTDEF = (define-parameters)
[OUTALC[ = (allocate-parameters)]]]

[APPEND]

[PRTFILE = (print-file-description)
[PRTDEF = (define-parameters)
[PRTALC[ = (allocate-parameters)]]]
[PRTOUT = (sysout-parameters)]

[SIZEOPT = (size-parameters)]
[STEPOPT = (step-parameters)];
```

VOLMAINT (DMUT)

```
{ VOLUME = (DEVCLASS = dev-class, MEDIA = media-name
{
{ LABEL = {NATIVE}
{ [LABEL = {NONE}] ] }
{ NSTD }
}
} INVOL = (DEVCLASS = dev-class, MEDIA = media-name
{
{ LABEL = {NATIVE}
{ [LABEL = {NONE}] ] [INDEF = (define-parameters)]
{ NSTD }
}
}

{COMMAND = 'command-list'
}
{COMFILE = (input-file-description)
}
{ [COMDEF = (define-parameters)] }

[PRTFILE = (print-file-description)
[PRTDEF = (define-parameters)]
[PRTALC[ = (allocate-parameters)]]]

[PRTOUT = (sysout-parameters)]

[SIZEOPT = (size-parameters)]

[STEPOPT = (step-parameters)];
```

JCL Statements

VOLMODIF (DMUT)

```
VOLUME = (DEVCLASS=device-class, MEDIA = volume-name)

      [BADTRACK = (cccc/tt[,cccc/tt]...)]
      [BADBLOCK = (digits8[,digits8])]
FBO
VBO      [FORGET = (cccc/tt[,cccc/tt]...)]

VBO      [{ANALYSIS} ]
VBO      [{ } = (CCCC/TT[,CCCC/TT])]
VBO      [{WRHADDR } ]

FBO      [{ANALYSIS} ]
FBO      [{ } = (digits8[,digits8])]
FBO      [{ERASE } ]

      [{CTLACC } ]
      [{ } ]
      [{NCTLACC}]

      [OWNER = {project-name}]
      [OWNER = { } ]
      [ * ]

      [{QUOTA } ]
      [{NQUOTA}]

      [NSEQALC]

      [SIZEOPT = (size-parameters)]

      [STEPOPT = (step-parameters)];
```

VOLPREP (DMUT)

```
OLD = (DEVCLASS = device-class
      MEDIA = volume name
      [ LABEL = {NATIVE} ])
      [ LABEL = {NONE} ])
      [ {NSTD} ])

NEW = ([DEVCLASS = device-class,] MEDIA = vol-name

      [ {NATIVE} ])
      [ LABEL = { } ])
      [ {NONE} ])

      [ {D6250} ]
      [ DENSITY = { } ]
      [ {D1600 } ]

      [ {SHORT } ]
      [ {WRHADDR} ]
      [ {COMPLETE}]

      [ {VBO} ]
      [ VOLORG = { } ]
      [ {FBO} ]
```

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```
[ERASE]
[
  {digits2}]
[VTOCADDR = {
  {cccc/tt}}][VTOCSIZE = {
  {digits8}}][
  {digits6}]

[WORK][FORGET][FORCE][BYPASS]

[
  { 1 }][
[SECTINCR = {
  {digits2}}][[AUTOCALC][LBLFORM = {
  {KDS }}]
  {ECMA}]

[BADTRACK = (cccc/tt[,cccc/tt]...)]
[BADBLOCK = (digits8[,digits6]...)]
[ERSTSIZE = digits3]

[{{CTLACC }}]
[{{
}}]
[{{NCTLACC}}]

[
  {project-name}]
[OWNER = {
  {
  *
  }}]

[{{QUOTA }}]
[{{NQUOTA}}]

[SIZEOPT = (size-parameters)]
[STEPOPT = (step-parameters)];
```

VOLREST (DMUT)

```
INFILE = (input-file-description)

OUTVOL = (DEVCLASS = device-class,
  MEDIA = volume-name)

[{{ALL }}]
[{{
}}]
[{{VTOC}}]

[{{NFAST}}]
[{{
}}]
[{{FAST }}]

[
  {1}]
[NBBUF = {
  {1}]
  {2}]

[
  { 0 }]
[SKIP = {
  {
  }}]

[
  {digits3}]

[FLOW = digits3]

[REORG]
```

JCL Statements

```
INDEF = (define-parameters)
[SIZEOPT = (size-parameters)]
  STEPOPT = (step-parameters)];
```

Note that a volume must be restored by the same version as that with which it was saved.

VOLSAVE (DMUT)

```
INVOL = (DEVCLASS=device-class, MEDIA=vol-name)
OUTFILE = (output-file-description)
[      { 0 } ]
[SKIP = { } ]
[      {digits3} ]
[FLOW = digits3]
[ {ALL} ]
[ {VTOC} ]
[ {NFAST} ]
[ { } ]
[ {FAST} ]
[[DIRTY]
[      {1} ]
[NBBUF = {1} ]
[      {2} ]
[COMPACT]
OUTDEF = (define-parameters)
[SIZEOPT = (size-parameters)]
STEPOPT = (step-parameters)];
```

VSETLIST

```
[NAME = {*_name18}]
[SUBSET = {ALL|RESIDENT}]
[VOLSET [= {name6|DFLT}]]
[VOLORG = {ALL|VBO|FBO}]
[PROTECT = {ALL|NONE|PUBLIC|PRIVATE|QUOTA}]
[SHARED = {ALL|YES|NO}]
[MIRROR = {ALL|YES|NO}]
[TYPE = {ALL|SYSTEM|BKST}]
```

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```
[OPTION = {NONE|ALL|QUOTA|IOS|EXTENT}]
[PROJECT = {*|name12}]
[ORDER = {NO|VOLSET}]
[DETAILED]
[PRTFILE = (print-file-description)
          [PRTDEF = (define-parameters)]
          [PRTALC = (allocate-parameters)]]
[PRTOUT = (sysout-parameters)]
[SIZEOPT = (size-parameters)]
[STEPSOPT = (step-parameters)];
```

WRITER (JCRM)

```
{(sequential-input-file-description)      }
{[PART = (ai[:bi][ai+1[:bi+1]]...)    ]}
{[SELECT = ([ron[:{index                }]]...)]}
{[ {output-name}                       ]}
{(input-library-description)             }
{ SUBFILES = ({member-name[member-name]...} }
{ {star-name[star-name]... } })}.
[CLASS = identifier1]
[PRIORITY = digit1]
[WHEN = {JOB }
 [      {IMMED}]]
[ {HOLD } ]
[ {NHOLD} ]
[NAME = identifier8]
{BANNER                                }
{NBANNER                                 }
{BANINF = (alphanum12,[alphanum12]...)}
[COPIES = digits2]
[DEVCLASS = device-class [MEDIA = volume-name]]
[DEST = alphanum8]
[DATAFORM = {SSF [REPORT = {string_2}]]]
[ [      {SARF          {ALL }]]]
[ [      {DOF           }]]]
[ [      {ASA           }]]]
```

JCL Statements

```
[NUMBER]  
  
  [ {FPARAM } ]  
  [ {NFPARAM} ]  
  
  [ {SLEW } ]  
  [ {NSLEW} ]  
  
  [ {DELETE } ]  
  [ {NDELETE} ]  
  
[PRINTER = (printer-options)]  
[           ];  
[PUNCH = (punch-options)   ]
```

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A. GENERAL FILE DESCRIPTIONS AND CHARACTERISTICS

A file description consists of a combination of parameters from the ASSIGN JCL statement. The most commonly used file descriptions are fully described in this appendix. For other file descriptions, some ASSIGN parameters may or may not be valid. For details consult the appropriate manual.

input-library-description

```
{TEMP                }
{TEMP1              }
{TEMP2              }
{external-file-name}

[                {CAT    } ]
[FILESTAT = {UNCAT } ]
[                {TEMPRY} ]
[TEMPRY      ]

[ {CATALOG = digits1                } ]
[ {RESIDENT                        } ]
[ {DEVCLASS = device-class          } ]
[ {                {WORK            } } ]
[ {MEDIA = { *                      } } ]
[ {                {(volume-name[volume-name]...) } } ]
[ {                {volset-name     } } ]
[ {VOLSET = {                      } } ]
[ {                {DFLT            } } ]

[                {ACCESS = {WRITE  } } ]
[ {                {NORMAL  } } ] [ {                {SPWRITE} } ]
[ {                {ONEWRITE} } ] [ {                {        } } ]
[SHARE = {                } ] [ {                {READ   } } ]
[ {                {FREE    } } ] [ {                {SPREAD } } ]
[ {                {DIR     } } ] [ {                {ALLREAD} } ]

[END = {DEASSIGN} ]
[ {PASS      } ]

[ABEND = {DEASSIGN} ] [LABEL = NATIVE]
[ {PASS      } ]
```

output-library-description

same as input-library-description plus:

```
[EXPDATE = {yyy/mm/dd} ]
[ {yy/ddd } ] [SIZE = digits3]
[ {ddd   } ]
```

print-library-description

Same as output-library-description except that TEMP, TEMP1 and TEMP2 can only be used in an IOF environment; if no value is specified, the default value is TEMP.

sequential-input-file-description

```

{*input-enclosure-name}
{external-file-name }
{* }

[ {CAT } ]
[FILESTAT = {UNCAT } ]
[ {TEMPRY } ]
[TEMPRY ]

[ {CATALOG = digits1 } ]
[ {RESIDENT } ]
[ {DEVCLASS = device-class } ]
[ { {WORK } } ]
[ {MEDIA = { * } } ]
[ { { (volume-name[volume-name]...) } } ]
[ { {volset-name } } ]
[ {VOLSET = { } } ]

[ { {DFLT } } ]

[SUBFILE = member-name]

[ACCESS = {WRITE } ]
[SHARE = {NORMAL } ] [ {SPWRITE } ]
[ {ONEWRITE} ] [ {READ } ]
[ {FREE } ] [ {SPREAD } ]
[ {MONITOR } ] [ {ALLREAD } ]
[ {DIR } ] [ {RECOVERY} ]

[FSN = {digits3} ] [ {FIRST} ] ]
[ {ANY } ] [POOL[ { } ] ]
[ {NEXT } ] [ {NEXT} ] ]

[NBEFN = {digits3}][FIRSTVOL = {digits3}]
[ {ALL } ] [ {EOF } ] ]

[ {LASTVOL = digits3} ] [END = {DEASSIGN} ]
[ { EOF } ] [ {PASS } ] ]
[ { LEAVE } ] ]
[ { UNLOAD } ] ]

[ABEND = {DEASSIGN} ]
[ {PASS } ] ]
[ {LEAVE } ] ]
[ {UNLOAD } ] ]

[ {NATIVE} ] ]
[LABEL = {NONE } ] [MOUNT = digits2]

```

General File Descriptions and Characteristics

```
[ {NSTD } ]
```

input-file-description

Same parameters as sequential-input-file-description, above, except that the file referenced is not restricted to being a sequential file.

sequential-output-file-description

```
{external-file-name}  
{DUMMY }
```

Same optional parameters as sequential-input-file plus:

```
[CATNOW] [CATALOG = digit1]
```

```
[EXPDATE = {yy/mm/dd}] [SIZE = digits3]  
[ {yy/ddd } ]  
[ {ddd } ]
```

```
[ {D1600} ]  
[ {D6250} ]  
[DENSITY = { } ]  
[ {S35 } ]  
[ {S75 } ]
```

output-file-description

This parameter group is identical to sequential-output-file-description, except that the file referenced does not have to be sequential.

input-file-set-description

```
star-expression[REF] [ =  
  {*input-enclosure }  
  {((input-file)[(input-file)]...)} ] ]
```

```
[ONLY = (DEVCLASS = device-class  
  [MEDIA = (media-list)])]
```

```
FILESTAT = {CAT }  
           {UNCAT}
```

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```
[{CATNAME = external-file-name          }
[{CATALOG = digit1                      }

[RESIDENT                               ]

[DEVCLASS = device-class                ]
[  [MEDIA = {WORK                        }]]
[  [  {*                                  }]]
[  [    {volume-name[volume-name]...}]]
[  [FNS = digits3                       ]

[SHARE = {NORMAL  } ]
[  {ONEWRITE} ]
[  {FREE} ]
[  {MONITOR } ]
[  {DIR } ]
[  {UNSPEC } ]

[ACCESS = {WRITE  } ]
[  {SPWRITE } ]
[  {READ } ]
[  {SPREAD } ]
[  {RECOVERY} ]
[  {ALLREAD } ]

[END = (DEALLOC [BYPASS] [UNCATNOW])]

[MOUNT = digits2] [POOL]
```

General File Descriptions and Characteristics

output-file-set-description

```
star-expression[REF[=  
    { *input-enclosure }  
    { ((input-file)[(input-file)]...) }]]  
  
[ONLY = (DEVCLASS = device-class  
    [MEDIA = (media-list)])]  
  
FILESTAT = { {CAT }  
            { }  
            {UNCAT}  
            }  
  
[RESIDENT ]  
  
[DEVCLASS = device-class ]  
[ ]  
[ [MEDIA = {WORK }]]  
[ [ { * }]]  
  
[ [ {volume-name[volume-name]... }]]  
[ [[ {NEXT }]]  
[ [[FSN = { }]]  
[ [[ {digits3}]]  
  
[ {CATNAME = external-file-name}]  
[CATNOW] [ { }]  
[ {CATALOG = digit1 }]  
  
[SHARE = {NORMAL }]  
[ {ONEWRITE}]  
[ {FREE}]  
[ {MONITOR}]  
[ {DIR}]  
[ {UNSPEC}]  
  
[ACCESS = {WRITE }]  
[ {SPWRITE}]  
[ {RECOVERY}]  
  
[ABEND = (DEALLOC [BYPASS] [UNCATNOW])]  
  
[MOUNT = digits2] [POOL]  
  
[ {D1600}]  
[ {D6250}]  
[DENSITY = { }]  
[ {S35}]  
[ {S75}]  
  
[EXPDATE = {yy/mm/dd}]  
[ {yy/dd}]  
[ {ddd}]
```


General File Descriptions and Characteristics

merge-define-parameters
sort-define-parameters

```
[ {UFAS} ]  
[FILEFORM = { } ] [RECSIZE=digits5][BLKSIZE=digits5]  
[ {BFAS} ]
```

```
[BLKOFF = digits3]
```

```
[ERROPT = {RETCODE}]  
[ {SKIP } ]  
[ {ABORT } ]  
[ {IGNORE } ]
```

```
[ {FB} ]  
[ {F } ]  
[RECFORM = {VB} ] [NBSN]  
[ {V } ]  
[ {U } ]
```

```
[WRCHECK] [DUMMYREC = digits3]
```

```
[ADDRFORM = {TTRDD}]  
[ {LRRR } ]
```

```
[NBBUF = {2} ] [BPB = {1 } ]  
[ {1} ] [ {digits2} ]
```

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For SORT only:

```
[          {SSF } ]  
[DATAFORM = {   } ]  
[          {SARF} ]  
  
[ {TRUNCSSF} ]  
[ {NTRNCSSF} ]
```

For V5 MERGE:

```
[          {SSF } ]  
[DATAFORM = {   } ]  
[          {SARF} ]  
  
[ {TRUNCSSF} ]  
[ {NTRNCSSF} ]
```

merge-input-file-description

sort-input-file-description

Same parameters as sequential-output-file-description.

backing-store-file-description

```
external-file-name{RESIDENT  
                  {device-class-description}}
```

allocate-parameters

```
[SIZE = digits5] [INCRSIZE = digits5]  
  
[          {CYL } ]  
[UNIT = {TRACK}] [CHECK] [KEEP]  
[          {BLOCK}]
```


General File Descriptions and Characteristics

resource-reservation-parameters

```
[REQDEV = (device-request-description  
          [device-request-description]...)]
```

```
[REQVOL = (volume-request-description)  
          [volume-request-description]...)]
```

```
[REQFILE = (file-request-description  
           [file-request-description]...)]
```

where:

```
device-request-description ::=  
  ([digits* ] device-class MAX = digits)
```

```
volume-request-description ::=  
  (DEVCLASS = device-class)  
  MEDIA = volume-name [volume name]...)
```

```
[MOUNT = digit1]
```

```
[POOL[FIRST]]  
[  [NEXT]]
```

```
[VOLWR ]  
[NVOLWR]
```

```
[SHARE = {FREE}]  
[  {NO }]
```

```
file-request-description ::=  
  (output-file-description)
```

Optional Parameters for all STEP DEFINING STATEMENTS

The following keyword parameters can be used in any Step Defining Statements:

```
[DUMP = {NO }]  
[  {DATA}]
```

```
[STEOPT = (step-parameters)]  
          [SIZEOPT = (size-parameters)]
```

Note: For full descriptions of STEOPT and SIZEOPT, see Appendix B.

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B. STEP PARAMETERS (STEOPT) AND SIZE PARAMETERS (SIZEOPT)

The following STEP parameters can be used in STEPOPT:
load-module-name (input-library-description)

```
[XPRTY = digit1]

[CPTIME = {9999999}]
[      {digits7}]

[ELAPTIME = {9999 } ]
[      {digits4}]

[LINES = {99999999}]

[      {digits8 } ]

[      {NO } ]
[DUMP = {DATA[PRIVATE]}]
[      {ALL [PRIVATE]}]

[DEBUG [= (sequential-input-file-description)]]

[OPTIONS = 'string4096']

[REPEAT]

[ {MAXMEN} ]
[ {MINMEN} ]
```

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The following SIZE parameters can be used in SIZEOPT:

[working-set-size]

[CHPPAGE = digits]

[NBBUF = digits3]

[POOLSIZE = digits]

C. DEVICE CLASSES

The DEVCLASS parameter can be used to specify any of the following device classes:

MASS STORAGE UNITS

MS/D500
MSB10
MS/FSA

CARTRIDGE UNITS

CT/36T
CT/36T/C
CT/M5
CT/M5/C
CT/M6
CT/M6/S35
CT/M6/S75
CT/LIB/36T
CT/LIB/36T/C
CT/LIB/M5
CT/LIB/M5/C

MAGNETIC TAPE UNITS

MT/T9
MT/T9/D1600
MT/T9/D6250
MT/T9/S
MT/T9/D1600/S
MT/T0/D6250/S

PRINTER UNITS

PR/spped/Hnnn/model

Note: Speed can be SI, FI, or A.
Model can be PR54 or PR90.
Speed , Hnnn, or model can be omitted.

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D. DATA SERVICES LANGUAGE

The Data Services Language (DSL) is the command language for the COMPARE, CREATE, MERGE, SORT and PRINT JCL statements.

The DSL commands for SORT and MERGE are:

FUNCTION:

```
[DESCEND][DELETE][COLLATE = {EBCDIC  }]  
[                               {G100  }]  
[                               {ASCII  }]  
[                               {H200  }]  
[                               {'Hexa-512'}]
```

The following parameters are **not** used with the MERGE statement:

```
[OUTPUT = {DATA  }][ {NONE  }]  
[ {ADDATA }][DUPREC = {      }]  
[ {KEYADDR }][ {FIFO  }]  
[ {ADDROUT }]  
  
[SORTSIZE = digits11][MIN = digits5]  
  
[AVERAGE = digits5][INTINFO][DEBUG]  
  
[ {WRDATA }]  
[WRDISK = {      }]  
[ {WRCKD  }]
```

RECORD:

```
KEY[S] = position-length[CHAR][RV]  
[UBIN]  
[SBIN]  
[UDEC]  
[PDEC]  
  
[position-length[CHAR][RV]...]  
[UBIN]  
[SBIN]  
[UDEC]  
[PDEC]
```

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```
[INCLUDE = condition[ANDcondition]          ]
[ [INCLUDE = condition[ANDcondition]...]... ]
[OMIT = condition[ANDcondition]...         ]
[ [OMIT = condition[ANDcondition]...]...   ]

[SUM = position-length[UDEC]
 [          [PDEC]
 [          [SBIN]
[AND position-length[UDEC]...]
 [          [PDEC]  ]
 [          [SBIN]  ]
[ARRANGE = arrange-element[arrange-element]...]
```

END:

The DSL commands for COMPARE, CREATE and PRINT are:

RECORD:

```
[[PRIMREC] INCLUDE=condition[ANDcondition]... ]
[[COMPREC]                                     ]

[[[PRIMREC]]INCLUDE=condition[ANDcondition]... ]
[[[COMPREC]]                                   ]
[                                               ]
[ OMIT = CONDITION[ANDcondition]...           ]
[                                               ]
[ [OMIT=condition[ANDcondition]...]           ]

[          {positionlength                      } ]
[          {                                     } ]
[          { [CHAR]'constant'                   } ]
[          { [UBIN]                              } ]
[ARRANGE   { [SBIN]                              } ]
[          { [PDEC]                              } ]
[          { [UDEC]                              } ]
[          { [HEXA]                              } ]
[          {                                     } ]
[          { GENlengthUDEC'digits31'            } ]
[          {          UDEC'digits31'            } ]
[          {                                     } ]
[          [positionlength                      ] ]
[          [                                     ] ]
[          [[CHAR]'constant'                    ] ]
[          [[UBIN]                              ] ]
[          [[SBIN]                              ] ]
[          [[PDEC]                              ] ]
[          [[UDEC]                              ] ]
[          [[HEXA]                              ] ]
[          [                                     ] ]
[          [ GENlengthUDEC'digits31'            ] ]
[          [          UDEC'digits31'            ] ]
```


Data Services Language

END:

```
[ TRANSMIT {SELECTED} ]  
[ {ALL} ]
```

condition element:

```
{ PRIMREC }  
  
{ COMPREC }  
{ EQ }  
{ NE } [ CHAR ]  
{ LE } [ UBIN ]  
{ positionlength } positionlength [ SBIN ]  
{ LT } [ UDEC ]  
{ GE } [ PDEC ]  
{ GT }  
  
{ EQ } [ CHAR ] 'constant'  
{ NE } [ UBIN ]  
{ positionlength } { LE } [ SBIN ]  
{ RECNB } { LT } [ UDEC ]  
{ GE } [ PDEC ]  
{ GT } [ HEXA ]  
  
{ positionlength } { POS } [ UDEC ]  
{ NEG } [ PDEC ]  
{ ZERO } [ SBIN ]
```

NOTE: Maximum value of length and constants of 'constant' depend on the data type:

CHAR	maximum length in bytes	32K
HEXA	maximum length in bytes	4
PDEC	maximum length in bytes	16
UDEC	maximum length in bytes	31
UBIN	fixed length in bytes	2 or 4
SBIN	fixed length in bytes	2 or 4

Allowed separators are:

```
"blank"  
"  
,  
"  
"  
")"
```

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E. COMMAND LANGUAGES

This appendix gives the commands of the following statements:

CATMAINT
CMDMGT
LINKER
URINIT
VMAINT
VOLMAINT

E.1 CATMAINT

```
VAL [ {NBILLCHK} ] [ {NLOGON} ] [ {CATALOG} ]
    [ {BILLCHK} ] [ {LOGON} ] [ {CAT } ] = digit1;
```

activates checks on the Site Catalog

```
NVAL [ {CATALOG} ]
     [ {CAT } ] = digit1;
```

inhibits checks on the Site Catalog

```
LCS [ {CATALOG} ]
    [ {CAT } ] = digit1;
```

CRP project-name

```
[ {STD } ]
[ , { } ]
[ {NSTD} ]
```

```
[ {MAIN } ]
[ , { } ]
[ {NMAIN} ]
```

```
[ {STATION } ]
[ , { } ]
[ {NSTATION} ]
```

```
[ {NSCONDRY} ]
[ , { } ]
[ {SCONDRY } ]
```

```
[ {NETWORK } ]
[ , { } ]
[ {NNETWORK} ]
```

```
[ {BROADC } ]
[ , { } ]
[ {NBROADC} ]
```

```
[ , APPLIST = (application-name[/tdscore]
              [,application-name[/tdscore]]...)]
```

```
[ , STTNLIST = (station-name[,station-name]...)]
```

```
[ , JOBCLASS = (class[,class]...)]
```

```
[ , MSVOL = (star-volume-name
            volume-name[:volume-name]
            star-volume-name
            volume-name[:volume-name]...)]
```

```
[ , MTVOL = (star-volume-name
            volume-name[:volume-name]...)]
```

```
[ , MASTDIR ]
```

```
[ , MSTUPB = {SITE } ]
```

Command Languages

```
[ {PROJECT} ]
[ {USER } ]
[ {EMPTY } ]

[ , MSTUPI = {SITE } ]
[ {PROJECT} ]
[ {USER } ]
[ {EMPTY } ]

[ , OSTUPB = {PROJECT} ]
[ {USER } ]
[ {EMPTY } ]

[ , OSTUPB = {PROJECT} ]
[ {USER } ]
[ {EMPTY } ]

[ , {CATALOG} ]
[ { } = digit1; ]
[ {CAT } ]
```

MDP project-name

```
[ {STD } ]
[ , { } ]
[ {NSTD} ]

[ {MAIN } ]
[ , { } ]
[ {NMAIN} ]

[ {STATION } ]
[ , { } ]
[ {NSTATION} ]

[ {NSCONDRY} ]
[ , { } ]
[ {SCONDRY } ]

[ {NETWORK } ]
[ , { } ]
[ {NNETWORK} ]

[ {BROADC } ]
[ , { } ]
[ {NBROADC} ]

[ {APPLIST = (application-name[/tdscode] ) } ]
[ { [ ,application-name[/tds/code]]... } ]
[ , { } ]
[ {ADDAPPL = (application-name[/tdscode] ) } ]
[ { [ ,application-name[/tdscode]]... } ]

[ , {STTNLIST = (station-name[,station-name]...)} ]
[ {ADDSTTN = (station-name[,station-name]...)} ]
[ , {JOBCLASS = (class[,class]...)} ]

[ {MSVOL = star-volume-name } ]
[ { volume-name[:volume-name] } ]
[ { star-volume-name } ]
[ { volume-name[:volume-name]... } ]
[ { } ]
[ {ADDMSVOL = (volume-name[:volume-name] ) } ]
[ { [ ,volume-name[:volume-name]]... } ]
```

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```

[, {MTVOL = (star-volume-name          )}]
[ ' {          volume-name[:volume-name]  )}]

[ {
  {
    ADDMTVOL = (volume-name[:volume-name]  )
    [ ,volume-name[:volume-name]]... )}]

[, MASTDIR]

[, MSTUPB = {SITE      }      ]
[          {PROJECT   }      ]
[          {USER      }      ]
[          {EMPTY     }      ]

[, MSTUPI = {SITE      }      ]
[          {PROJECT   }      ]
[          {USER      }      ]
[          {EMPTY     }      ]

[, OSTUPB = {PROJECT   }      ]
[          {USER      }      ]
[          {EMPTY     }      ]

[, OSTUPI = {PROJECT   }      ]
[          {USER      }      ]
[          {EMPTY     }      ]

[, {CATALOG}          ]
[ {          } = digit1 ] ;
[ {CAT      }          ]

LSP {
  *          }
  {project-name}

[, {CATALOG}          ]
[ {          } = digit1 ;
[ {CAT      }          ]

DLP {
  *          }
  {project-name}

[, {CATALOG}          ]
[ {          } = digit1 ;
[ {CAT      }          ]

MVP project-name

[, INCAT = digit1]

[, OUTCAT = digit1]

[, REPLACE] ;

CRU project-name.user-name [,PASSWORD = char12]
      [{DFLT} ] [ {CATALOG} ]
      ,[{      } ] [ {          } = digit1]
      [{NDFLT}] [ {CAT      } ]
;

```

Command Languages

```
MDU project-name.user-name [,PASSWORD = char12]
                        [{DFLT}] [, {CATALOG}]
                        ,[{NDFLT}] [ {CAT } = digit1 ]
                        [ {NDFLT}] [ {CAT } ]
;
```

```
LSU{*. *
    {*.user-name
    {project-name.*
    {project-name.user-name}
```

```
[, {CATALOG}]
[ {CAT } = digit1];
[ {CAT } ]
```

```
MVU{(project-name.*
    {project-name.user-name}
```

```
[, INCAT = digit1]
```

```
[, OUTCAT = digit1]
```

```
[, REPLACE] ;
```

```
CRB project-name.billing-name [ , CREDIT = digits8 ]
```

```
[, {DFLT}]
[ {NDFLT}]
```

```
[, {CATALOG}]
[ {CAT } = digit1 ]
[ {CAT } ] ;
```

```
MDB project-name.billing-name [ , CREDIT = digits8 ]
```

```
[, {DFLT}]
[ {NDFLT}]
```

```
[, {CATALOG}]
[ {CAT } = digit1 ]
[ {CAT } ] ;
```

```
LJB{*. *
    {*.billing-name
    {project-name.*
    {project-name.billing-name}
```

```
, {CATALOG}
{CAT } = digit1
{CAT } ;
```

```
DJB{*. *
    {*.billing-name
    {project-name.*
    {project-name.billing-name}
```

```
[, {CATALOG} ]
```

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```
[ {          } = digit1]
[ {CAT      }          ];
```

MVB{project-name.*
 {project-name.billing-name}

```
[, INCAT = digit1]
[, OUTCAT = digit1]
[, REPLACE]      ;
CRS station-name
[,DFLTOUTC = output-class]
[,DFLTPRTY = (output-class/priority
              [,output-class/priority]...)]
[,PRTDFDVC = device-class]
[
[,FBANNER = {0}]
[,FBANNER = {1}]
[ {2}]
[
[,EBANNER = {0}]
[,EBANNER = { }]
[ {1}]
[,BANCHAR = char-2]
[,SITELIST = (site-name[,site-name]...)]
[, {CATALOG}          ]
[ {          } = digit1]
[ {CAT      }          ];
```

MDS station-name

```
[,DFLTOUTC = output-class]
[,DFLTPRTY = (output-class/priority
              [,output-class/priority]...)]
[,PRTDFDVC = device-class]
[
[,FBANNER = {0}]
[,FBANNER = {1}]
[ {2}]
[
[,EBANNER = {0}]
[,EBANNER = { }]
[ {1}]
[,BANCHAR = char-2]
[, {SITELIST}          ]
[ {          } = site-name[,site-name]...];
[ {ADDSITE }          ]
[, {CATALOG}          ]
[ {          } = digit1]
[ {CAT      }          ];
```


Command Languages

```
LSS  {*
      {station-name}

[, {CATALOG}
 [ { } = digit1]
 [ {CAT  } ]];
```

```
DLS  {*
      {station-name}

[, {CATALOG}
 [ { } = digit1]
 [ {CAT  } ]];
```

```
MVS      station-name
[,INCAT = digit1]
[,OUTCAT = digit1]
[,REPLACE] ;
```

E.2 CMDMGT

```

APPEND [[INIT ]n1 [[STEP = ]n2]];

BINLIB[[LIBRARY = ]binary-library-description];

COMPILE[PROC = ]procedure-name[[BRIEF = ]{0}]
                                           [ ]{1}]
CREATE [[INIT = ] n1 [[STEP = ]n2]];

DECOMPILE [PROC = ] procedure-name;

DELETE [PROCEDURES = ]star-procedure-name
      [[DOMAIN =] member-name];

DOMAIN [DOMAIN =] member-name ;

EDIT;

ENVT [ENVIRONMENT = ]environment-name
     [FAMILIES =] (digits3[digits3]...);

FSE;

LEDIT;

LEVNT [ENVIRONMENTS =]star-environment-name;

LIST [[PROCEDURES =] star-procedure-name
     [[DOMAINS =]star-member-name];

LOAD [PROC =] procedure-name;

LPROJ [PROJECTS =]star-project-name;

PRINT [PROCEDURES =]star-procedure-name
      [[DOMAIN =]member-name];

PROJ [PROJECT =]project-name
     [ENVIRONMENTS =] (environment-name
                      [environment-name]...);

QUIT;

RESAVE [FORCE];

RESEQUENCE [[INIT =]n1[[STEP =]n2]];

SAVE [FORCE];

SLLIB [[LIBRARY =] source-library-description];

STATUS;

```

Command Languages

E.3 LINKER

```
[COMM = 'comment']

[ENTRY = entry-name]

[EXITR = compile-unit-name]

[
    {INLIB } ]
[
    {INLIB1 } ]
[FETCH = (entry-name{INLIB2})]...
[
    {INLIB3 } ]
[
    {INLIB4 } ]

[
    {NONE } ]
[
    {INDEXED } NBBUF = {1} ]
[
    {SEQ } ]
[FILE = (FILEORG = { } )...
[
    {DIRECT } ]
[
    {RELATIVE}NUMBER = { 1 } ]
[
    {RANDOM } {digits2} ]

[GATE = (compile-unit-name ]
[
    {2} ]
[
    CMRN = { }ENTNUM = digits4)]...
[
    {3} ]

[
    {(compile-unit-name[compile-unit-name]...)} ]
[
    {INLIB } ]
[
    {INLIB1 } ]
[INCLUDE= {INLIB2 } ]...
[
    {INLIB3 } ]
[
    {INLIB4 } ]

[LINKTYPE = MAM]
[LIST = XREF]

MSEGAT = ( {compile-unit-name segment-id}
           {GLOBLSEG segment-name} )

[
    {2} ] [
    {2} ] [
    {2} ]
[
    { } ] [RD = { } ] [WR = { } ]
[
    {3} ] [
    {3} ] [
    {3} ]

[
    {2} ]
[SHRLEVEL = { } ]
[
    {3} ]

[
    {YES} ] [
    {digits7 } ]
[EXPAND = { } ] [MAXSIZE = { } ]
[
    {NO } ] [
    {digits4K} ]

[
    {segment-name} ]
[PLACE = (data-name{ } )]...
[
    {BLANK } ]

[REPLACE = (external-name-1 external-name-2
            [CU = compile-unit-name])]...

[TASK = task-name START = entry-name)]...

[TITLE = 'title']

[VACSEG = ([PRIVATE = +digits3][SHARE = +digits3])] ;
```

E.4 URINIT

```
MOVE name [REPLACE] item-type = (parameters) [NCHECK];
```

```
DELETE name item-type;
```

```
RENAME name item-type;
```

```
LINK{[KPRU = nameBPRU = (name[,name]...)]}
    {[BPRU = (name,name[,name]...)]}
    {[FPRU = nameVPRU = name]}
    {[VPRU = namePPRU = name]}
    {[FPRU = namePPRU = name]}
    {[CPTR = nameEPTR = name]}
    ;
```

```
UNLINK{[KPRU = nameBPRU = (name[,name]...)]}
    {[BPRU = (name,name[,name]...)]}
    {[FPRU = nameVPRU = name]}
    {[VPRU = namePPRU = name]}
    {[FPRU = namePPRU = name]}
    {[CPTR = nameEPTR = name]}
    ;
```

```
LIST[*];
```

```
PRINT{ [ {PTU} ] }
      { *{PRU} }
      { [ {DHU} ] }
      { {name} }
      ;

      { { } item-type }
      { { * } }
```

E.5 VMAINT

```
LOAD{ {NLIB1 } :SM_name }
      { {INLIB2} }
      { {INLIB3} }
      { [ {INLIB1} ] : * }
      { [ {INLIB2} ] }
      { [ {INLIB3} ] }

      [OLD][REPLACE];

UNLOAD SM-name LIB = library-name;

STATUS = { ONLY }
         { EVEN }
         { RESET }
```

E.6 VOLMAINT

DUMP

```
{
  {EXTADDR = { (bbbb,bbbb) } }
  { (ccc/tt,ccc/tt) }
}

{
  {CYLADDR = { ccc } }
  { * }
}

{
  {TRKADDR = { ccc } }
  { * } /tt
}

{
  { {ccc} {tt} }
  { { * } / { * } /rrr }
}
{
  {RECADDR = { {bbbb} } }
  { * }
}

[
  {digits5:digit5[:D]}]
[PART = { } ]
[
  {hexa4 :hexa4:X } ]

[FORMAT = { ALPHA } ] ;
[ HEXA ] ;
[ BOTH ] ]
```

CHANGE

```
ADDR = ccc/tt/rrr

[PART = digits5: digist5 [: {D} ] ]
[ { } ] ]
[ {X} ] ]

NEW = { 'alphanum250' }
{ 'hexadecimal250' }

OLD = { 'alphanum250' }
{ 'hexadecimal250' }

[FORMAT = { X } ] ;
[ NEXA ] ] ;
[ A ] ;
[ ALPHA ] ]
```

F. MANUAL ABBREVIATIONS

BIUG	47A2-11UP	BINDER USER'S GUIDE
CATM	47A2-35UF	CATALOG MANAGEMENT USER GUIDE
COUG	47A2-06UL	COBOL 85 USER GUIDE
DMUT	47A2-34UF	DATA MANAGEMENT UTILITIES (DMU) USER GUIDE
FORM	47A2-15UJ	FORMS USER'S GUIDE
FOUG	47A2-12UL	FORTRAN USER GUIDE
FRFU	47A2-37UF	FILE RECOVERY FACILITIES USER GUIDE
FSEG	47A2-06UP	FSE AND ASSOCIATED FACILITIES USER GUIDE
F7UG	47A2-16UL	FORTRAN 77 USER GUIDE
GPUG	47A2-36UL	GPL USER GUIDE
IDUG	47A2-12UD	IDS/II USER GUIDE
IOFP	47A2-37UJ	IOF PROGRAMMER'S MANUAL
IOF1	47A2-38UJ	IOF TERMINAL USER'S REFERENCE MANUAL PART I: INTRODUCTION
IOF2	47A2-39UJ	IOF TERMINAL USER'S REFERENCE MANUAL PART II: GCL COMMANDS
IOF3	47A2-40UJ	IOF TERMINAL USER'S REFERENCE MANUAL PART III: PROCESSORS COMMANDS
JCRM	47A2-11UJ	JCL REFERENCE MANUAL
JCUG	47A2-12UJ	JOB CONTROL LANGUAGE USER GUIDE
LKUG	47A2-10UP	LINKER USER GUIDE
LMRM	47A2-01UP	LIBRARY MAINTENANCE REFERENCE MANUAL
LMUG	47A2-02UP	LIBRARY MAINTENANCE USER GUIDE
PAUG	47A2-52UL	PASCAL USER GUIDE
SADM	47A2-41US	SYSTEM ADMINISTRATOR'S MANUAL
SMUG	47A2-08UF	SORT/MERGE USER GUIDE
SOGD	47A2 47US	SYSTEM OPERATOR'S GUIDE
TDSG	47A2-32UT	TDS ADMINISTRATOR'S GUIDE
TEUG	47A2-05UP	TEXT EDITOR USER GUIDE

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