JCL

Pocket Guide

Job Control and IOF

DPS7000/XTA
NOVASCALE 7000
JCL
Pocket Guide

Job Control and IOF

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Appendices

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.

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
schn	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):

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

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]

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

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

```
[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    }]
```

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

Where the device-class-description has the format:

```
DEVCLASS = device-class

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

and the device-identification-list has the format:

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

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

BINDER
(BIUG)

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

          {TEMP                     }
[OUTLIB = {                         }]
          {(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}}}}
```

```
{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}]                      [      {Y}]
[OPTIMIZE = {2}][PACKAGE][PSEGMAX] [K11 = {  }]
[           {3}]                      [      {N}]
[           {4}]

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

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

[EXPLIB = source-library-description]

[EXPONLY]        [INLINE]        [MODSTRNG] ;
```

CATALOG   **(Statement form 1:)**
(CATM)

```
external-file-name

TYPE = FILE

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

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

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

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

           {NO     }    ]
           {BEFORE }
[JOURNAL = {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)];
```

CATALOG   **(Statement form 5:)**
generation-group-name

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

```
[GENTYPE = CLOSELP]

NBGEN = digits2

          {0       }
[RETPER = {        }];
          {digits3}
```

CATALOG   **(Statement form 6:)**
generation-group-name

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

```
GENTYPE = OPENLP

          {9999    }
[NBGEN =  {        }]
          {digits4}

            {0001    }
[STARTGEN = {        }];
            {digits4}
```

CATBUILD
(CATM)

catalog-file-description-1

```
NBOBJECT = digits5

 {NAUTOATT}
[{        }]
 {AUTOATT }

[CYLINDER = digits3]

          {digits3               }
[EXPDATE = {digits2/digits3       }]
          {digits2/digits2/digits3}

[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 }]
```

```
[           {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)];
```

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}

          {*          }            {22    }
[DELETE = {           } ,[LEVEL = {      }]]
          {project-name}           {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  }]
         {ONEWRITE}
         {MONITOR }
         {DIR     }
         {FREE    }
         {UNSPEC  }

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

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

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

[RETPER = digits3]

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

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

[NBGEN = digits4]

[STARTGEN = digits4]

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

[UNLOCK]

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

```
[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}

          {DIR  }]
[TYPE = {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.

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           }                                                  }
]

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

```
[ 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 }] [{OOBSERV }] [{  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) ]

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

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

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

COMMENT
(JCRM)

```
'comments-string';
```

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)]]

        {digits8}
 [START={        }]
        {    1   }

        {digits8}
 [INCR = {        }]
        {    1   }

 [HALT = digits8]

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

        {digits3}
 [TAPEND = {        }]
        {    1   }

 [ { EQUAL | DELTA } ]

 [FMEDIA]

 [IFEXFSN = digit4]

 [OFEXFSN = digit4]

 [SIZEOPT = (size-parameters)]

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

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)]

          {digits8}
 [START = {       }]
          {    1  }

          {digits8}
 [INCR = {       }]
          {    1  }

 [HALT = digits8]

           {'string_1'}
 [FILLER = {          }]
           {  hexa_2  }

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

 [APPEND]

             {ORDER }
 [FILELOAD = {      }]
             {NORDER}

 [KEYLOC = digits5]
```

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

{ IMPORT }
{ EXPORT }

[FMEDIA]

[IFEXFSN = digit4]

[OFEXFSN = digit4]

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

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)]

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

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 }]              [{TRUNCSSF}]
          [{NDLREC}]              [{NTRNCSSF}]

          [{COMPACT }]
          [{NCOMPACT}]

          [FPARAM]

          [LTRKSIZE = digits5]
[FILEORG  = {SEQ     }]
[           {RELATIVE}]
[           {INDEXED }]
[           {LINKQD  }]
[           {NONE    }]

 [KEYSIZE = digits3]

 [CISIZE = digits5]

 [CIFSP = digits2]
```

```
 [BUFPOOL = 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]

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

```
[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  ;
```

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)]

        {TEMP                        }
[LIB = {                             }]
        {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)];
```

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)]

              {    1    }
    [TAPEND = {         }]
              {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)];
```

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)

           {ddd     }
[EXPDATE = {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)]

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

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

 [FLOW = digits3]

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

 [NCKDATE]

 [FMEDIA]

 [IFEXFSN = digit4]

 [SIZEOPT = (size-parameters)]

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

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)]

            {CREATE}
[SAVEMODE = {      }]
            {APPEND}

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

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

[FLOW = digits3]

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

[EXPORT]

[FMEDIA]

[OUTDEF = (define-parameters)

[OFEXFSN = digit4]

[SIZEOPT = (size-parameters)]

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

FILTFR   **(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       }]
[{              }] [ { COMPACT | NCOMPACT } ] ;
[{START = nnnnn }]
```

FILTFR   **(Statement form 2:)**

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

FILTFR   **(Statement form 3:)**

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

FORMGEN
(FORM)

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

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

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 = nnnn[K]] [PSEGMAX = nnnn[K]] [INIT = hh]

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

[         GCOS7 }][{NLIST}][{NMAP}][{NOBSERV}]
[LEVEL = GCOS1E}][{      }][{    }][{        }]
[         SIRIS8}][{LIST }][{MAP }][{OBSERV }]

[            {0}]
[            {1}] [            {NO   }]
[OPTIMIZE = {2}] [PACKAGE = {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)]]
```

```
[SYSOUT = (sysout)]

[PRTOUT = (sysout)]

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

[BUFFER = digits3]

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

GPL
(GPUG)

```
{SOURCE = *input-enclosure-name                        }
{                                                      }
{          {mb-name                 }                  }
{SOURCE = {ALL                      }                  }
{          {(mb-name[,mb-name]...)} }                  }
{                          {(input-library)}}          }
{              INLIB = {              }}               }
{                          {TEMP          }}           }

          [         {TEMP                          }]
[CULIB =  {         {                              }]
          [         {(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}]
```

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]

[                  [          {PRINTID}]]
[          {ABORT   }[          {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];
```

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}]

[JOBLANG = {GCL}]
[          {JCL}]

[EXPVAL];
```

JOBLIB
(TDSG)

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

JUMP
(JCRM)

```
{label-name}
{CONTINUE  }

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

LET
(JCRM)

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

LIB
(LMUG)

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

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

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

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

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

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])

         {CYL  }
 UNIT = {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)}

           {DIR    }
[OPTIONS = {       }]
           {DEALLOC}

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

[PRTOUT = (sysout-parameters)]

[UNCATNOW]

[BYPASS]

[FORCE]

[ERASE]

[SIZEOPT = (size-parameters)]

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

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)]

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

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}];
```

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}]
[{LOBSERV}] [{LIST }] [{MAP }] [{OBSERV }] [{XLN}]

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

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

POOL
(JCRM)

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

{  device-name                          };
```

PREALLOC
(DMUT)

(Statement form 1, for Disk Files:)

```
                          [         {ddd    }]
external-file-name [EXPDATE = {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-add])    }}
{{         [(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)
DATABLK = digits8 (FBO)
```

(Statement form 2 , for Cataloged Tape Files:)

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

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

  EXTEND

  DEVCLASS = device-class
```

```
 GLOBAL = (MEDIA = (volume-name [volume-name]...))

FILESTAT = CAT [CATALOG = digit1] [CATNOW]

[MOUNT = digit1]

[END = UNLOAD | LEAVE]

[SIZEOPT = (size-parameters)]

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

(Statement form 3 , for Diskette Files:)

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

         {CYL    }
         {TRACK  }
  [UNIT = {      }]
         {SECTOR}
         {RECORD}

  [CKSPACE] [CKBINT]

{DKAS =(BLKSIZE = digits5 RECSIZE = digits5}
{                                           }
{                  {FB }                     }
{                  {F  }                     }
{                  {FS }                     }
{      [RECFORM = {    }]                    }
{                  {FBS}                     }
{                  {VB }                     }
{                  {V  }                     }
{      [ONELOAD])                            }
{EXTEND                                      }

  FILESTAT = UNCAT DEVCLASS = device-class

{GLOBAL=(MEDIA=(vol-name [vol-name]...)          }
{        SIZE = digits5)                         }
{SPLIT = ((vol-name SIZE = digits5) [CYL=digits3] }
{ [ (vol-name SIZE = digits5 [CYL = digits3])]...)}

  [MOUNT = digit1]

  [SIZEOPT = (size-parameters)]

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

PREFIX
(CATM)

```
{prefix-name }
{            };
{project-name}
```

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']

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

           {digits8}
   [START = {       }]
           {   1   }

           {digits8}
   [INCR = {       }]
           {   1   }

   [HALT = digits8 ]

   [KEYLOC = digits5 ]

            {digits3}
   [TAPEND = {       }]
            {   1   }

   [IFEXFSN = digit4]

   [SIZEOPT = (size-parameters)]

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

QASSIGN
(JCRM)

```
symbolic-queue-name     [.symbolic-subqueue1-name
                         [.symbolic-subqueue2-name
                         [.symbolic-subqueue3-name]]]

external-queue1-name

[SITE = system-name]

[{IN                                              }]
[{INOUT ACCESS = [{LIN}]                          }]
[{              [{RR }]                            }];
[{                                                }]
[{OUT          [REPLY = external-queue2-name] }]
```

Note: REPLY must not be specified with IN.

RELEASE
(JCRM)

```
job-name[{SWITCHES = {hexa8}              }]
        [{             {PASS}              }]
        [{                                }];
        [{SWITCHi = {0}[SWITCHj = {0}]...}]
        [{          {1}          {1}]    }]
```

REPORT
(JCRM)

```
'string110';
```

ROLLFWD
(JCRM)

```
{outfile1                                         }
{OUTFILES = ((outfile1)[(outfile2)]...[outfile25)])}

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

[ENDDATE = yy.mm.dd hh[.mm[.ss]]];

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

RUN
(JCRM)

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

 [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     }];
```

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)];
```

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]  ;
```

SORT
(SMRG)

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


           {(sofd [smdp] ) [REPLIN]            }
 OUTFILE = {(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    }] [    {        }] ]
[INVREC = ([{         }] [ERROPT = {        }])]
[          [{CONTINUE}] [    {        }] ]
[                          [    {LOG     }] ]
[                          [    {IGNORE }] ]

[LOGFILE = (soft smdp) ] [REPEAT]

[START = dec10]
[HALT = dec10]

[SIZEOPT = (size-parameters)]

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

SORTIDX
(DMUT)

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


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

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

 [SIZEOPT = (size-parameters)]

 [STEPOPT = (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...]) } } ;
```

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'         } }
{          {                                   };  }
```

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

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)]
[STEPOPT = (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]

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

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

         {   1    }
[TAPEND = {        }]
         {digits2 }

[BUFFER = digits5]

[PRTOUT = (sysout-parameters)]

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

[SIZEOPT = (size-parameters)]

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

VOLDUPLI
(DMUT)

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

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

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

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

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

            {  1   }
 [TAPEND = {       }]
            {digits2}

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

 [SIZEOPT = (size-parameters)]

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

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

VOLMODIF
(DMUT)

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


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

VBO               [FORGET = (cccc/tt[,cccc/tt]...)]

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

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

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

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

        [{QUOTA }]
        [{NQUOTA}]

        [NSEQALC]

        [SIZEOPT = (size-parameters)]

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

VOLPREP
(DMUT)

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

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

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

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

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

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

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

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

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

```
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}]
```

```
[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)]

[STEPOPT = (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                       }]
```

```
[NUMBER]

 [{FPARAM }]
[{NFPARAM}]

[{SLEW }]
[{NSLEW}]

[{DELETE }]
[{NDELETE}]

[PRINTER = (printer-options)]
[                          ];
[PUNCH = (punch-options)    ]
```

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    }]

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


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

```
[             {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}
```

```
[{CATNAME = external-file-name            ]
[{CATALOG = digt1                         ]

[RESIDENT                                 ]

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

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

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

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

[MOUNT = digits2] [POOL]
```

output-file-set-description

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

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

           {CAT  }
FILESTAT = {      }
           {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     }]
```

print-file-description

Same as sequential-output-file-description, except that
external-file-name SYS.OUT can be used but TEMP, TEMP1
and TEMP2 cannot be used.

work-file-description

```
external-file-name


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

[{CATALOG = digits1                       }]

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


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

[LABEL = NATIVE]

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

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

[SIZE = digits3]
```

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}]
```

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}]
```

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}]

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

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

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B. STEP PARAMETERS (STEPOPT) 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}]
```

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.

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]
```

```
[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'        ]]
```

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]                   }
{                                                  }
{                {POS }   [UDEC]                   }
{positionlength  {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"
> " "
> "("
> ")"

E. COMMAND LANGUAGES

This appendix gives the commands of the following statements:

CATMAINT
CMDMGT
LINKER
URINIT
VMAINT
VOLMAINT

E.1 CATMAINT

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

activates checks on the Site Catalog

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

inhibits checks on the Site Catalog

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

CRP project-name

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

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

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

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

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

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

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

[, 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    }]
```

```
[            {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]]...)}]
```

```
[,{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    }          ]
;
```

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


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

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


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

[, INCAT = digit1]

[, OUTCAT = digit1]

[, REPLACE]  ;


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

                              [, {DFLT }]
                              [  {NDFLT}]

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


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

                              [, {DFLT }]
                              [  {NDFLT}]

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


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

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


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

[, {CATALOG}         ]
```

```
[  {       } = 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]

[          {0}]
[,FBANNER = {1}]
[          {2}]

[          {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]

[          {0}]
[,FBANNER = {1}]
[          {2}]

[          {0}]
[,EBANNER = { }]
[          {1}]

[,BANCHAR = char-2]

[, {SITELIST}                          ]
[  {        } = site-name[,site-name]...)];
[  {ADDSITE }                           ]

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

```
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];
                                [           {0}]
COMPILE[PROC = ]procedure-name[[BRIEF = ]{ }]
                                [           {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;
```

E.3 LINKER

```
[COMM = 'comment']

[ENTRY = entry-name]

[EXITR = compile-unit-name]

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

[                  {NONE    }          {1}       ]
[                  {INDEXED }  NBBUF = { }        ]
[                  {SEQ     }          {2}       ]
[FILE = (FILEORG = {        }                    ]...
[                  {DIRECT  }          {  1  } ]
[                  {RELATIVE}NUMBER = {      })]
[                  {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]

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

          [     {2}] [    {2}] [    {2}]
          [MAXR = { }] [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;


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

E.6 VOLMAINT

```
DUMP

{              {(bbbbb,bbbbb) }}
{EXTADDR  =  {                }}
{              {(ccc/tt,ccc/tt}}

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

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

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

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

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


CHANGE

         ADDR = ccc/tt/rrr

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

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

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

                  {X    }
                  {NEXA }
         [FORMAT = {     }] ;
                  {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

JCL Pocket Guide

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