z/OS

IBM

JES3 Initialization and Tuning Reference

Version 2 Release 2

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About This Document

This document supports z/OS® (5650-ZOS). This document is intended for any JES3 complex that runs z/OS MVS.

This document provides reference information about JES3 initialization statements used to initialize, manage, and tune JES3.

Who Should Use This Document

JES3 system programmers or anyone who is responsible for initializing or tuning JES3 should use this document.

How to Use This Document

This document describes initialization statements and parameters that you can use to configure your JES3 complex. These statements and parameters enable you to define to JES3 your installation's job management policies and the resources that JES3 can use.

Initialization statements appear in alphabetic order with the statement name appearing at the top of each page. This arrangement allows you to quickly find a statement description without going to the index.

Many statement parameters influence or change the values of other initialization parameters. For example, a particular parameter coded on one statement may override a parameter coded on another statement. Table 3 on page 4 and Table 4 on page 7, in Chapter 1, "Initialization Statement Reference Summary," on page 1, identify interrelated statements and parameters. This table also lists the default values for parameters that you omit from your initialization stream.

If you specify an invalid subparameter on certain JES3 initialization statements, JES3 substitutes the subparameters default value and continues to run. To find out which initialization statements and subparameters select defaults, see Table 6 on page 19.

Where to Find More Information

The following table lists documents that contain information related to the information provided in this document.

When this document references information in other documents, the shortened version of the document title is used. The following table shows the shortened titles, complete titles, and order numbers of the documents that are not listed in *z/OS Information Roadmap*. See that document for all documents.z/OS

Short Title	Title	Order Number
Print Services Facility/MVS System Programmer's Guide	*Print Services Facility/MVS System's Programmer Guide*	SH35-0091

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    SA32-1005-01
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Summary of changes for z/OS Version 2 Release 2 (V2R2)

The following changes are made for z/OS Version 2 Release 2 (V2R2).

New

- Added new keywords to OPTIONS statement "Summary of JES3 initialization statements" on page 3.
- Added new keywords and parameters to the OPTIONS statement. For details, see the topic about "Syntax" on page 152 and "Parameters" on page 154.
- Added new SELECT example. For details, see the topic about "Example" on page 187.
- Added new keywords and parameters to the SYSOUT statement. For details, see the topic about "Syntax" on page 220 and "Parameters" on page 221.

Changed

- Modified the coding considerations of the DYNALLOC Summary table of the DYNALLOC statement. For details, see the topic about "Statement Summary" on page 99.

Deleted

No content was removed from this information.

Summary of changes for z/OS Version 2 Release 1

See the following publications for all enhancements to z/OS Version 2 Release 1 (V2R1):

- *z/OS Migration*
- *z/OS Planning for Installation*
- *z/OS Summary of Message and Interface Changes*
- *z/OS Introduction and Release Guide*

Chapter 1. Initialization Statement Reference Summary

This section describes the rules for coding JES3 initialization statements and explains the notation used in the format descriptions for each statement. It also provides quick reference charts that summarize each initialization statement. For information on creating or modifying an initialization stream, organizing the initialization stream, and testing the initialization stream, see *z/OS JES3 Initialization and Tuning Guide*.

Coding Rules for Initialization Statements

You must observe the following rules when coding initialization statements:

- Code the statement name and parameters in columns 1-71. Column 72 must be blank if the statement is complete; column 72 may be blank or non-blank if the statement is continued. JES3 ignores columns 73-80.

- Use commas to separate the statement name from the first parameter and to separate one parameter from another.

- If you code a keyword parameter more than once, JES3 typically uses the last value coded. In some cases, however, JES3 treats a duplicate keyword as a continuation of a previously coded keyword of the same name. In other cases, when JES3 encounters a duplicate keyword, it issues a diagnostic message.

- If you want to continue an initialization statement (individual statement descriptions specify whether a statement can be continued):

  - The last item you code in columns 1-71 must be a complete parameter (a parameter and all of its subparameters) followed by a comma or a subparameter followed by a comma.

  - If one or more blanks follows a comma, that statement is considered continued, and any data beyond the blank(s) is treated as a comment. If a comma appears in column 71 following a statement parameter, that statement is considered continued.

  - Column 72 optionally may contain any non-blank character if the statement is being continued. Use of a non-blank character in a statement that is *not* to be continued results in an error and message IAT3253 is issued.

  - On the continuation statement you may start coding in any column. The statement can complete on this line or be continued.

- You can place any number of comment statements (indicated by an asterisk in column 1) anywhere in the initialization stream. Comment statements cannot be continued; however, multiple comment statements can be included consecutively.

- Initialization statements can contain embedded comments provided that at least one blank separates the last parameter and the comment. For initialization statements that are continued, at least one blank must follow the continuation comma (with the exception of a comma in column 71).

- JES3 does not evaluate symbols in initialization statements. Symbol names, including ampersands and periods, are handled literally. In limited cases (such as the DSN= parameter on the DYNALLOC statement) where the use of symbols in the parameter does not cause the parameter to exceed its maximum length, symbols will be passed to another system component to perform the evaluation, provided that system component supports a symbol for the parameter in question, but in general the use of symbols is not supported by

JES3. Error messages may or may not be issued, depending on whether the statement in question can tolerate the use of ampersands or periods within its parameters. In cases where errors are not issued and the value is defined literally, the resulting definition may not be usable by JES3.

- You should not rely on parameter default values to be sufficient for your environment. Test each default value used, and be alert to performance problems that may arise as your environment changes.

Examples: The following are examples of valid initialization statement continuation:

```
CLASS,NAME=ABC,DEF=YES,
MDEPTH=(SY1,10)
CLASS,NAME=ABC,GROUP=TESTGP,SYSTEM=(SY1,SY2)

CLASS,NAME=ABC,GROUP=TESTGP,SYSTEM=(SY1,SY2),
DEF=YES

CLASS,NAME=ABC,DEF=YES,    This is a comment
      MDEPTH=(SY1,10)

CLASS,NAME=ABC,DEF=YES,    This is a comment
*This is a comment line
      MDEPTH=(SY1,        This is a comment
*This is a comment line
            10)
```

Notation for Initialization Statement Format Descriptions

Table 1. Initialization Statement Notation

Character	Meaning
comma&tab;, equal sign&tab;= numbers&tab;**123** parentheses&tab;**( )** period&tab;**.** plus sign&tab;**+** question mark&tab;**?** uppercase&tab;**XYZ**	Code uppercase letter or words exactly as they appear in the syntax figures. Characters shown to the left must be coded exactly as they appear.
Braces&tab;{ }	Braces group related items. You must code only one of the items grouped within the braces. Do not code the braces.
Variables&tab;**dev**	Lowercase letters and words represent variables for which you must substitute a value.
Brackets [ ]	Brackets group optional items. You can code none, one, some, or all of the items grouped within brackets. Do not code the brackets.
Ellipsis ...	An ellipsis (three consecutive periods) indicates that you can code the preceding item more than once. If the ellipsis follows a group of items that are enclosed in parentheses or brackets, you can code the entire group more than once.
Underline **10**	An underlined subparameter is the default value. If you do not specify a value for a subparameter, JES3 will use the default.

Summary of JES3 initialization statements

Table 2. Functional summary of JES3 initialization statements

Statement	Function
ACCOUNT	Specifies default DSP accounting information.
BADTRACK	Identifies a defective track on spool and prevents its use for subsequent allocations.
BUFFER[3]	Establishes the JES3 buffer pool and the size of JES3 DASD records.
CIPARM	Specifies variable converter/interpreter parameter default values.
CLASS	Specifies the characteristics of the JES3 job class.
COMMDEFN	Identifies the VTAM/JES3 interface.
COMMENT	Provides the facility for comments in the initialization stream.
COMPACT	Identifies a compaction table.
CONSOLE	Specifies the characteristics of a RJP workstation console and assigns message classes to it.
CONSTD	Defines standards for console configuration.
DEADLINE	Establishes deadline scheduling algorithms.
DESTDEF	Specifies how inbound SYSOUT data sets from other NJE nodes are to be processed.
DEVICE	Specifies the characteristics of each device defined to JES3.
DYNALDSN	Identifies protection requirements for dynamically allocated data sets or permanently-resident devices.
DYNALLOC	Dynamically allocates a data set or a device.
ENDINISH[1]	Identifies the end of the initialization stream.
ENDJSAM[1]	Identifies the end of the JES3 I/O statements which precede the bulk of the initialization stream.
FORMAT[2]	Requests formatting for the JES3 spool data set.
FSSDEF	Defines the characteristics of a functional subsystem.
GROUP	Specifies the characteristics of JES3 job class groups.
HWSNAME	Identifies groups of I/O units for high watermark setup.
INCLUDE	Selects and includes segments of an initialization stream into the primary initialization stream.
INTDEBUG	Provides the facility to generate a dump associated with an initialization stream error message.
MAINPROC[1,4]	Identifies and specifies the characteristics of each main in the JES3 complex.
MSGROUTE	Assigns MVS™ message routing codes for each main.
NETSERV	Defines the attributes of a TCP/IP/NJE Network Server address space.
NJECONS	Defines the message class to which JES3 Networking is to send network messages.
NJERMT	Defines a node in a network of nodes.
OPTIONS[3]	Specifies certain options for the JES3 system.
OUTSERV	Specifies output service defaults and standards.
RESCTLBK	Specifies that main storage be preallocated for the high-usage function control table (FCT).
RESDSN	Specifies the names of frequently used permanently resident data sets.
RJPLINE	Specifies the characteristics of a single BSC line that the JES3 global will use for RJP.
RJPTERM	Specifies the characteristics of a remote terminal for BSC remote job processing.
RJPWS	Specifies the characteristics of a remote work station for SNA RJP.
SELECT	Specifies the scheduling parameters for job selection modes.
SETACC	Defines nonshared permanently resident direct access volumes before main initialization.
SETNAME	Specifies groups of devices within device types.
SETPARAM	Specifies main device scheduler (MDS) parameters for allocating I/O devices.
SETRES	Specifies which direct access volumes are to be made JES3 mounted at main initialization.
SOCKET	Defines the attributes of a TCP/IP/NJE socket connection.
SPART	Defines and names a spool partition.
STANDARDS	Specifies standard default values and job options for the JES3 complex.
SYSID	Defines the default MVS/Bulk Data Transfer (MVS/BDT) node for the JES3 complex.
SYSOUT	Specifies the characteristics of a SYSOUT class.
TRACK[2]	Identifies a formatted volume that is allocated for the spool data set.

Note:

1. Required.

2. Unformatted spool data sets need a FORMAT statement; formatted spool data sets need either a FORMAT or TRACK statement.

3. Certain parameters can only be changed during a cold start. See the statement summary for details.

4. Cannot change the order of MAINPROC statements across a warm start.

Table 3. Initialization Statement Summary A thru L

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
• W - warm start • C - cold start • HR - hot start with refresh						
ACCOUNT	Opt	account information	(0,0,0,0)		W, C, HR	"Parameters" on page 24
BADTRACK	Opt	DDNAME		FORMAT(DDNAME); TRACK(DDNAME); DYNALLOC(DDN)	W, C	"Parameters" on page 26
		CYL			W, C	"Parameters" on page 26
		TRK			W, C	"Parameters" on page 26
BUFFER	Opt	BUFSIZE	4084	DEVICE(RECORDS); FORMAT(DDNAME); OPTIONS(SE) (JOBNO)	**C**	"Parameters" on page 28
		PAGES	1024,128,512		W, C	"Parameters" on page 28
		GRPSZ	30	SPART(GRPSZ); SYSOUT(TRKGRPS)	W, C	"Parameters" on page 28
		MINBUF	16		W, C, HR	"Parameters" on page 28
		SPLIM	10,25	SPART(SPLIM)	W, C	"Parameters" on page 28
		TRUNC	YES	SYSOUT(TRUNC)	W, C, HR	"Parameters" on page 28
CIPARM	Opt	PARM	00000300025631E00011A	STANDARDS(PRTY); SYSOUT(CLASS)	W, C, HR	"Parameters" on page 32
		PARMID	01	STANDARDS(TSOPMID, STCPMID, INTPMID)	W, C, HR	"Parameters" on page 32
		REGION	256K		W, C, HR	"Parameters" on page 32
		COMMAND	IGNORE		W, C, HR	"Parameters" on page 32
		AUTH	ALL		W, C, HR	"Parameters" on page 32
CLASS	Opt	CIBATCH	ANY	STANDARDS (CIBATCH)	W, C, HR	"Parameters" on page 38
		CIDEMAND	ANY	STANDARDS (CIDEMAND)	W, C, HR	"Parameters" on page 38
		NAME	JS3BATCH (see statement)	CLASS parameter on //*MAIN	W, C, HR	"Parameters" on page 38
		DEF			W, C, HR	"Parameters" on page 38
		FAILURE		STANDARDS (FAILURE)	W, C, HR	"Parameters" on page 38
CLASS	Opt	GROUP	JS3BATCH	GROUP(NAME) (DEF)	W, C, HR	"Parameters" on page 38
		IORATE	MED	SELECT(JOBMIX) (CHOICE)	W, C, HR	"Parameters" on page 38
		JESMSG	STANDARDS (JESMSG) setting	STANDARDS (JESMSG)	W, C, HR	"Parameters" on page 38
		JOURNAL	NO	JOURNAL parameter on //*MAIN	W, C, HR	"Parameters" on page 38
		MDEPTH		MAINPROC(NAME)	W, C, HR	"Parameters" on page 38
		MLIMIT		MAINPROC(NAME)	W, C, HR	"Parameters" on page 38
		PRTY	PRTY on STANDARDS	STANDARDS(PRTY)	W, C, HR	"Parameters" on page 38
CLASS	Opt	SDEPTH			W, C, HR	"Parameters" on page 38
		SPART	default spool partition	SPART(NAME)	W, C, HR	"Parameters" on page 38
		SPIN	NO	Job JCL JESLOG= keyword value	W, C, HR	"Parameters" on page 38
		SYSSYM	DISALLOW		W, C, HR	"Parameters" on page 38
		SYSTEM	ANY	MAINPROC(NAME)	W, C, HR	"Parameters" on page 38
		TDEPTH			W, C, HR	"Parameters" on page 38
		TLIMIT			W, C, HR	"Parameters" on page 38
		TRKGRPS	1,2		W, C, HR	"Parameters" on page 38

Table 3. Initialization Statement Summary A thru L (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
COMMDEFN	Opt	APPLID	JES3		W, C, HR	"Parameters" on page 46
		P	Null character string		W, C, HR	"Parameters" on page 46
		LU	255		W, C, HR	"Parameters" on page 46
* (Comment)	Opt	None			W, C, HR	"Parameters" on page 47
COMPACT	Opt	NAME		COMPACT on RJPWS	W, C, HR	"Parameters" on page 49
		MCCT			W, C, HR	"Parameters" on page 49
		CHAR			W, C, HR	"Parameters" on page 49
		DEFAULT	N		W, C, HR	"Parameters" on page 49
CONSOLE (RJP)	Opt	JNAME		N= on RJPWS; N= on RJPTERM	W, C, HR	"Parameters" on page 51
		TYPE			W, C, HR	"Parameters" on page 51
		DEST			W, C, HR	"Parameters" on page 51
		LL	120		W, C, HR	"Parameters" on page 51
		LEVEL	0		W, C, HR	"Parameters" on page 51
		SAVEMSG	YES		W, C, HR	"Parameters" on page 51
CONSTD	Opt	GLOBMPF	NO		W, C	"Parameters" on page 54
		CIFSS	FSSDEF		W, C	"Parameters" on page 54
		SYN	8		W, C	"Parameters" on page 54
		PLEXSYN	*		W, C	"Parameters" on page 54
		DLOG	ON		W, C	"Parameters" on page 54
DEADLINE	Opt	type		//*MAIN	W, C, HR	"Parameters" on page 57
DESTDEF	Opt	USERID		NJERMT (NETHOLD)	W, C, HR	"Parameters" on page 59
		DEVICE		NJERMT (NETHOLD)	W, C, HR	"Parameters" on page 59
DEVICE (processor status)	Opt	DTYPE				"Parameters" on page 60
		JNAME		MAINPROC(NAME)	W, C, HR	"Parameters" on page 60
		JUNIT	main2,,,ON	MAINPROC(NAME)	W, C, HR	"Parameters" on page 60
DEVICE (Network)	Opt	DTYPE			W, C, HR	"Parameters" on page 62
		JNAME		NJERMT(LINE)	W, C, HR	"Parameters" on page 62
		JUNIT	TP,ON	MAINPROC(NAME)	W, C, HR	"Parameters" on page 62
		NUMDEV			W, C, HR	"Parameters" on page 62
DEVICE (I/O)	Req	ALTPM			W, C, HR	"Parameters" on page 72
		BURST	YES		W, C, HR	"Parameters" on page 72
		CARRIAGE	YES,STANDARD	OUTSERV (CARRIAGE)	W, C, HR	"Parameters" on page 72
		CB	N		W, C, HR	"Parameters" on page 72
		CHARS	YES,STANDARD	OUTSERV(CHARS)	W, C, HR	"Parameters" on page 72
		CHNSIZE	DS		W, C, HR	"Parameters" on page 72
		CKPNT	200,10000,2000,1000		W, C, HR	"Parameters" on page 72
		CKPNTPG	200		W, C, HR	"Parameters" on page 72
		CKPNTSEC	200		W, C, HR	"Parameters" on page 72
DEVICE (I/O)	Req	COPYMARK	C		W, C, HR	"Parameters" on page 72
		DGROUP	LOCAL	SYSOUT(DEST)	W, C, HR	"Parameters" on page 72
		DGRPONLY	NO		W, C, HR	"Parameters" on page 72
		DTYPE		NJERMT(LINE)	W, C, HR	"Parameters" on page 72
		DYNAMIC	NO (NON FSS=YES)		W, C, HR	"Parameters" on page 72
		FEATURES			W, C, HR	"Parameters" on page 72
		FLASH	YES,STANDARD	OUTSERV(FLASH)	W, C, HR	"Parameters" on page 72
		FORMS	YES,STANDARD	OUTSERV(FORMS) (CDSTOCK); SYSOUT(FORMS)	W, C, HR	"Parameters" on page 72
		FSSNAME	JNAME specification	FSSDEF(FSSNAME)	W, C, HR	"Parameters" on page 72

Table 3. Initialization Statement Summary A thru L (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
DEVICE (I/O)	Req	HEADER	YES	SYSOUT(DEST)	W, C, HR	"Parameters" on page 72
		JNAME		NJERMT(LINE); SYSOUT(DEST)	W, C, HR	"Parameters" on page 72
		JUNIT	destclass,ON	CONSOLE(DEST); MAINPROC(NAME)	W, C, HR	"Parameters" on page 72
		LDENS	NO		W, C, HR	"Parameters" on page 72
		LINELIM		OUTSERV(WS=L)	W, C, HR	"Parameters" on page 72
		MODE	COMP (FSS with FSSNAME)		W, C, HR	"Parameters" on page 72
		MODIFY	YES,STANDARD	OUTSERV(MODIFY)	W, C, HR	"Parameters" on page 72
		NPRO	STANDARD		W, C, HR	"Parameters" on page 72
		NUMDEV			W, C, HR	"Parameters" on page 72
DEVICE (I/O)	Req	OPACTLOG	YES		W, C, HR	"Parameters" on page 72
		PAGELIM	0		W, C, HR	"Parameters" on page 72
		PDEFAULT	NONE		W, C, HR	"Parameters" on page 72
		PDIR	BDS		W, C, HR	"Parameters" on page 72
		PM	FSS: (LINE,PAGE); COMP: LINE		W, C, HR	"Parameters" on page 72
		RDFEAT	Y		W, C, HR	"Parameters" on page 72
		RECORDS	1 (2 for 3211)	BUFFER(BUFSIZE)	W, C, HR	"Parameters" on page 72
		SELECT	EDS=NO		W, C, HR	"Parameters" on page 72
		SETUPMSG	YES with FSS		W, C, HR	"Parameters" on page 72
		STACKER	YES,STANDARD	OUTSERV(STACKER)	W, C, HR	"Parameters" on page 72
DEVICE (I/O)	Req	SVF			W, C, HR	"Parameters" on page 72
		TRAIN	YES,STANDARD	OUTSERV(TRAIN); SYSOUT(TRAIN)	W, C, HR	"Parameters" on page 72
		WC	STANDARD		W, C, HR	"Parameters" on page 72
		WS	STANDARD		W, C, HR	"Parameters" on page 72
		XLATE	YES (NO for IBM® 3211, IBM 4245, and IBM 4248 devices)		W, C, HR	"Parameters" on page 72
		XTYPE	TA,RM	SETNAME(XTYPE); SETACC(VOL)	W, C, HR	"Parameters" on page 72
		XUNIT	destclass,ON	MAINPROC(NAME); SETPARAM(MDSLOG)	W, C, HR	"Parameters" on page 72
DYNALDSN	Opt	PROTECT	(*)		W, C, HR	"Parameters" on page 98
		BYPASS			W, C, HR	"Parameters" on page 98
DYNALLOC	Opt	DDN		FORMAT(DDNAME); TRACK(DDNAME); (BADTRACK)DDNAME	W, C, HR	"Parameters" on page 101
		DSN			W, C, HR	"Parameters" on page 101
		UNIT			W, C, HR	"Parameters" on page 101
		VOLSER			W, C, HR	"Parameters" on page 101
ENDINISH	Req				W, C, HR	"Parameters" on page 102
ENDJSAM	Req				W, C, HR	"Parameters" on page 103

Table 3. Initialization Statement Summary A thru L (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
FORMAT	Req	DDNAME		BUFFER(BUFSIZE); DYNALLOC(DDN); BADTRACK(DDNAME)	W, C	"Parameters" on page 104
		SPART		SPART(NAME)	W, C	"Parameters" on page 104
		STT	Allocates center 2 tracks to STT		Cold Only	"Parameters" on page 104
		STTL	Allocates center 2 tracks to STT		Cold Only	"Parameters" on page 104
FSSDEF	Opt	DSPCNT	2,1		W, C, HR	"Parameters" on page 108
		FSSNAME		DEVICE(FSSNAME)	W, C, HR	"Parameters" on page 108
		MAXASST	0		W, C, HR	"Parameters" on page 108
		MSGDEST	42(JES)		W, C, HR	"Parameters" on page 108
		PNAME	For CI FSS: JES3CI	STANDARDS (STCPROC)	W, C, HR	"Parameters" on page 108
		START	YES		W, C, HR	"Parameters" on page 108
		SYSTEM	For CI FSS: name of global	MAINPROC(NAME)	W, C, HR	"Parameters" on page 108
		TERM	NO		W, C, HR	"Parameters" on page 108
		TYPE			W, C, HR	"Parameters" on page 108
GROUP	Opt	NAME		CLASS,SELECT (GROUP)	W, C, HR	"Parameters" on page 114
		MODE	JES		W, C, HR	"Parameters" on page 114
		EXRESC	alopt/unalopt: DEMAND	MAINPROC(NAME); SETNAME (POOLNAMS); SETNAME (NAMES)	W, C, HR	"Parameters" on page 114
		BAR	16		W, C, HR	"Parameters" on page 114
		DEF	JS3BATCH (see statement)	CLASS(GROUP)	W, C, HR	"Parameters" on page 114
		DEVPOOL		SETNAME (POOLNAMS); SETNAME(NAMES);	W, C, HR	"Parameters" on page 114
		JSPAN	ALL		W, C, HR	"Parameters" on page 114
HWSNAME	Opt	TYPE		SETNAME(NAMES); STANDARDS(SETUP);	W, C, HR	"Parameters" on page 121
INCLUDE	Opt	MEMBER			W, C, HR	"Parameters" on page 126
INTDEBUG	Opt				W, C, HR	"Parameters" on page 128

Table 4. Initialization Statement Summary M thru Z

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page

- W - warm start
- C - cold start
- HR - hot start with refresh

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
MAINPROC	Req	FIXPAGE	5		W, C, HR	"Parameters" on page 131
		ID	R		W, C, HR	"Parameters" on page 131
		JESMSGLMT	0,10		W, C, HR	"Parameters" on page 131
		MDEST	65(M1)	CONSOLE(DEST)	W, C, HR	"Parameters" on page 131
		NAME		CLASS(MDEPTH) (MLIMIT) (SYSTEM); DEVICE(XUNIT) (JUNIT); GROUP(EXRESC); FSSDEF(SYSTEM); MSGROUTE(MAIN); NETSERV,(SYSTEM); SETACC(VOL)	W, C, HR	"Parameters" on page 131
		PRTPAGE	smaller of 512 or (16 x no. of spool data sets)		W, C, HR	"Parameters" on page 131
		SELECT	JS3BATCH	SELECT(NAME)	W, C, HR	"Parameters" on page 131
MAINPROC	Req	SPART	default spool partition	SPART(NAME)	W, C, HR	"Parameters" on page 131
		SYSTEM			W, C, HR	"Parameters" on page 131
		TRKGRPS	1,2		W, C, HR	"Parameters" on page 131
		USRPAGE	4		W, C, HR	"Parameters" on page 131
MSGROUTE	Opt	MAIN		MAINPROC(NAME)	W, C, HR	"Parameters" on page 135
		routecode		CONSOLE(DEST)	W, C, HR	"Parameters" on page 135
		J			W, C, HR	"Parameters" on page 135
NETSERV	Req	NAME		SOCKET(NETSERV)	W, C, HR	"Parameters" on page 138
NETSERV	Opt	HOSTNAME			W, C, HR	"Parameters" on page 138
		PORT	0		W, C, HR	"Parameters" on page 138
		SYSTEM		MAINPROC(NAME)	W, C, HR	"Parameters" on page 138
		STACK			W, C, HR	"Parameters" on page 138
		ITRACE	NO		W, C, HR	"Parameters" on page 138
		JTRACE	NO		W, C, HR	"Parameters" on page 138
		VTRACE	NO		W, C, HR	"Parameters" on page 138
NJECONS	Opt	CLASS	108(S12)	CONSOLE(DEST)	W, C, HR	"Parameters" on page 140

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
NJERMT	Opt	NAME		SOCKET(NODE) (when TYPE=TCPIP)	W, C, HR	"Parameters" on page 145
		NAME		OPTIONS(XCFGRPNM)	W, C, HR (XCFGRPNM not changed over HR)	"Parameters" on page 145
		ALIAS			W, C, HR	"Parameters" on page 145
		AUTO	NO		W, C, HR	"Parameters" on page 145
		BDTID		SYSID(NJENAME) as defined in the MVS/BDT initialization stream	W, C, HR	"Parameters" on page 145
		BFSIZ	400	BUFFER(BUFSIZE)	W, C, HR	"Parameters" on page 145
		CTC	NO		W, C, HR	"Parameters" on page 145
		EXPWD			W, C, HR	"Parameters" on page 145
		EXSIG			W, C, HR	"Parameters" on page 145
NJERMT	Opt	HOME	NO	OPTIONS(XCFGRPNM)	W, C, HR	"Parameters" on page 145
		LINE		DEVICE(DTYPE) (JNAME)	W, C, HR	"Parameters" on page 145
		MAXLINE	1		W, C, HR	"Parameters" on page 145
		NETHOLD	NO		W, C, HR	"Parameters" on page 145
		NJEPR	3		W, C, HR	"Parameters" on page 145
		NJEPU	3		W, C, HR	"Parameters" on page 145
		PATH			W, C, HR	"Parameters" on page 145
		PWCNTL	SENDCLR		W, C, HR	"Parameters" on page 145
		PRTDEF	Print class A	SYSOUT(CLASS)	W, C, HR	"Parameters" on page 145
NJERMT	Opt	PRTTSO	print class A		W, C, HR	"Parameters" on page 145
		PRTXWTR	print class A		W, C, HR	"Parameters" on page 145
		PUNDEF	Print class B		W, C, HR	"Parameters" on page 145
		PWD			W, C, HR	"Parameters" on page 145
		RETRYCT	20		W, C, HR	"Parameters" on page 145
		SIG			W, C, HR	"Parameters" on page 145
		STREAM	1		W, C, HR	"Parameters" on page 145
		TYPE	BSC		W, C, HR	"Parameters" on page 145
		RDLY	5		W, C, HR	"Parameters" on page 145

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
NJERMT	Opt	JOBTRANS	1		W, C, HR	"Parameters" on page 145
		OUTTRANS	1		W, C, HR	"Parameters" on page 145
		JOBRECV	1		W, C, HR	"Parameters" on page 145
		OUTRECV	1		W, C, HR	"Parameters" on page 145
		SPART			W, C, HR	"Parameters" on page 145
		XNAMEREQ			W, C, HR	"Parameters" on page 145
		DEFCLASS			W, C, HR	"Parameters" on page 145
OPTIONS	Opt	DUMP	PRDMP		W, C, HR	"Parameters" on page 154
		DUPJOBNM	NO		W, C, HR	"Parameters" on page 154
		DUPLOGON	NO		W, C, HR	"Parameters" on page 154
		DUMPLINS	24576		W, C, HR	"Parameters" on page 154
		JOBTRACK	SYSPLEX		W, C, HR	"Parameters" on page 154
		WANTDUMP	YES		W, C, HR	"Parameters" on page 154
		INTRDR	20		W, C, HR	"Parameters" on page 154
		JOBNO	1,9999,9999	BUFFER(BUFSIZE)	W, C, HR	"Parameters" on page 154
		MT	OFF		W, C, HR	"Parameters" on page 154
		SE	10	BUFFER(BUFSIZE)	**Cold Only**	"Parameters" on page 154
		XCFGRPNM	nodename on home node or 'N1' if no home node	NJERMT(NAME)	W, C	"Parameters" on page 154

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
OPTIONS	Opt	DOTPOOL	See parameter description for algorithm		W, C, HR	"Parameters" on page 154
		DUMP	PRDMP		W, C, HR	"Parameters" on page 154
		DUPJOBNM	NO		W, C, HR	"Parameters" on page 154
		DUPLOGON	NO		W, C, HR	"Parameters" on page 154
		DUMPLINS	24576		W, C, HR	"Parameters" on page 154
		JOBTRACK	SYSPLEX		W, C, HR	"Parameters" on page 154
		WANTDUMP	YES		W, C, HR	"Parameters" on page 154
		INTRDR	20		W, C, HR	"Parameters" on page 154
		JETPOOL	See parameter description for algorithm		W, C, HR	"Parameters" on page 154
		JOBNO	1,9999,9999	BUFFER(BUFSIZE)	W, C, HR	"Parameters" on page 154
		MT	OFF		W, C, HR	"Parameters" on page 154
		OSTPOOL	See parameter description for algorithm		W, C, HR	"Parameters" on page 154
		SE	10	BUFFER(BUFSIZE)	**Cold Only**	"Parameters" on page 154
		SEEPOOL	See parameter description for algorithm		W, C, HR	"Parameters" on page 154
		XCFGRPNM	nodename on home node or 'N1' if no home node	NJERMT(NAME)	W, C	"Parameters" on page 154
OUTSERV	Opt	CARRIAGE	6	SYSOUT(CHARS); DEVICE(CARRIAGE)	W, C, HR	"Parameters" on page 160
		CB	N		W, C, HR	"Parameters" on page 160
		CDSTOCK	5081	DEVICE(FORMS)	W, C, HR	"Parameters" on page 160
		CHARS	GS10	DEVICE(CHARS)	W, C, HR	"Parameters" on page 160
		FLASH	NONE,255	DEVICE(FLASH)	W, C, HR	"Parameters" on page 160
		FORMS	1PRT	DEVICE(FORMS); SYSOUT(FORMS)	W, C, HR	"Parameters" on page 160
		MODIFY	NONE,0	DEVICE(MODIFY)	W, C, HR	"Parameters" on page 160
		OUTLIM	16777215		W, C, HR	"Parameters" on page 160
		OUTSVFCT	1		W, C, HR	"Parameters" on page 160

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
OUTSERV	Opt	SNAGROUP	NO	SYSOUT(DSISO)	W, C, HR	"Parameters" on page 160
		STACKER	C	DEVICE(STACKER)	W, C, HR	"Parameters" on page 160
		TRAIN	PN	DEVICE(TRAIN); SYSOUT(TRAIN)	W, C, HR	"Parameters" on page 160
		THRESHLD	-1	SYSOUT(THRESHLD)	W, C, HR	"Parameters" on page 160
		WC	Null list, all data sets selected		W, C, HR	"Parameters" on page 160
		WS	D,T,F,C,U,FL,CM, SS,PM	DEVICE(LINELIM)	W, C, HR	"Parameters" on page 160
		NPRO	90		W, C, HR	"Parameters" on page 160
RESCTLBK	Opt	FCT	0		W, C, HR	"Parameters" on page 165
RESDSN	Opt	DSN			W, C, HR	"Parameters" on page 167
RJPLINE	Opt	N			W, C, HR	"Parameters" on page 168
		A			W, C, HR	"Parameters" on page 168
		F	Transparency feature assumed		W, C, HR	"Parameters" on page 168
		G	Eight blanks (no group name)		W, C, HR	"Parameters" on page 168
		I=B/A	I=A		W, C, HR	"Parameters" on page 168
		I=Y/N	I=Y		W, C, HR	"Parameters" on page 168
		O	*START command required		W, C, HR	"Parameters" on page 168
		P	Eight blanks (no PW protection)		W, C, HR	"Parameters" on page 168
		S	2400		W, C, HR	"Parameters" on page 168
RJPLINE	Opt	T		RJPTERM(N); CONSOLE(JNAME)	W, C, HR	"Parameters" on page 168
RJPTERM	Opt	N		RJPLINE(T)	W, C, HR	"Parameters" on page 171
		T			W, C, HR	"Parameters" on page 171
		B	400/512		W, C, HR	"Parameters" on page 171
		C	R/S	DEVICE(JNAME)	W, C, HR	"Parameters" on page 171
		F	Assumes terminal doesn't have feature		W, C, HR	"Parameters" on page 171
		G	Terminal name on N parameter		W, C, HR	"Parameters" on page 171
		O	DC3		W, C, HR	"Parameters" on page 171
		PR	0		W, C, HR	"Parameters" on page 171
		PRW	132		W, C, HR	"Parameters" on page 171

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
RJPTERM	Opt	PU	0		W, C, HR	"Parameters" on page 171
		PUW	80		W, C, HR	"Parameters" on page 171
		RD	0		W, C, HR	"Parameters" on page 171
		P			W, C, HR	"Parameters" on page 171
		CS	Y		W, C, HR	"Parameters" on page 171
		SET	N		W, C, HR	"Parameters" on page 171
RJPWS	Opt	N			W, C, HR	"Parameters" on page 179
		RD	1		W, C, HR	"Parameters" on page 179
		PR	1		W, C, HR	"Parameters" on page 179
		PU	0		W, C, HR	"Parameters" on page 179
		C	R		W, C, HR	"Parameters" on page 179
		G	Same name as on N parameter		W, C, HR	"Parameters" on page 179
		COMPACT	NO	COMPACT(NAME)	W, C, HR	"Parameters" on page 179
		P			W, C, HR	"Parameters" on page 179
		PL	2		W, C, HR	"Parameters" on page 179
RJPWS	Opt	AUTO	N		W, C, HR	"Parameters" on page 179
		LU	LOGONs accepted from any LU		W, C, HR	"Parameters" on page 179
		TRACE			W, C, HR	"Parameters" on page 179
		SETUP	NO		W, C, HR	"Parameters" on page 179
SELECT	Opt	NAME	JS3BATCH	MAINPROC(SELECT)	W, C, HR	"Parameters" on page 183
		CHOICE	FFIT	CLASS(IORATE)	W, C, HR	"Parameters" on page 183
		CLASS	All classes become eligible for scheduling	CLASS(NAME)	W, C, HR	"Parameters" on page 183
		GROUP	All groups become eligible for scheduling	GROUP(NAME)	W, C, HR	"Parameters" on page 183
		INCL	14		W, C, HR	"Parameters" on page 183
		INCR	1		W, C, HR	"Parameters" on page 183
		JOBMIX	Depends on # of initiators, see statement	CLASS(IORATE)	W, C, HR	"Parameters" on page 183
		LSTOR	12000	CLASS (LSTRR)	W, C, HR	"Parameters" on page 183
		MAGEL	14		W, C, HR	"Parameters" on page 183

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
SELECT	Opt	MAGER	0		W, C, HR	"Parameters" on page 183
		SAGEL	14		W, C, HR	"Parameters" on page 183
		SAGER	0		W, C, HR	"Parameters" on page 183
		SBAR	16		W, C, HR	"Parameters" on page 183
		SDEPTH	255		W, C, HR	"Parameters" on page 183
SETACC	Opt	VOL		MAINPROC(NAME); DEVICE(XTYPE)	W, C, HR	"Parameters" on page 189
SETNAME	Opt	XTYPE		DEVICE(XTYPE)	W, C, HR	"Parameters" on page 191
		NAMES		HWSNAME(TYPE); STANDARDS(SETUP); GROUP(EXRESC); GROUP(DEVPOOL)	W, C, HR	"Parameters" on page 191
		POOLNAMS		GROUP(DEVPOOL); GROUP(EXRESC)	W, C, HR	"Parameters" on page 191
SETPARAM	Opt	ADDRSORT	YES		W, C, HR	"Parameters" on page 194
		ALLOCATE	AUTO		W, C, HR	"Parameters" on page 194
		DAFETCH	97(S1)	CONSOLE(DEST)	W, C, HR	"Parameters" on page 194
		DEFERCT	NO	CLASS(SDEPTH); SELECT(SDEPTH)	W, C, HR	"Parameters" on page 194
		DSN	0		W, C, HR	"Parameters" on page 194
		FETCH	YES		W, C, HR	"Parameters" on page 194
		MDSLOG	97(S1)	CONSOLE(DEST); DEVICE(XUNIT)	W, C, HR	"Parameters" on page 194
		PRJESMSG	NONE		W, C, HR	"Parameters" on page 194
		REMOUNT	1		W, C, HR	"Parameters" on page 194
SETPARAM	Opt	SMSSETUP			W, C	"Parameters" on page 194
		TAFETCH	97,97(S1,S1)	CONSOLE(DEST)	W, C, HR	"Parameters" on page 194
		ALWIO	10		W, C, HR	"Parameters" on page 194
SETRES	Opt	VOL			W, C, HR	"Parameters" on page 199
SOCKET	Req	NAME			W, C, HR	"Parameters" on page 200

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
SOCKET	Opt	HOSTNAME			W, C, HR	"Parameters" on page 200
		PORT	0		W, C, HR	"Parameters" on page 200
		NETSERV		NETSERV(NAME)	W, C, HR	"Parameters" on page 200
		NODE		NJERMT(NAME)	W, C, HR	"Parameters" on page 200
		ITRACE	NO		W, C, HR	"Parameters" on page 200
		JTRACE	NO		W, C, HR	"Parameters" on page 200
		VTRACE	NO		W, C, HR	"Parameters" on page 200
SPART	Opt	NAME		CLASS, FORMAT, MAINPROC, SYSOUT, TRACK(SPART)	W, C	"Parameters" on page 203
		DEF	NO; YES for first partition		W, C	"Parameters" on page 203
		INIT	NO		W, C	"Parameters" on page 203
		SPLIM	(10,25)	BUFFER(SPLIM)	W, C	"Parameters" on page 203
		OVRFL	YES		W, C	"Parameters" on page 203
		GRPSZ	BUFFER(GRPSZ) value or 30	BUFFER(GRPSZ); SYSOUT(TRKGRPS)	W, C	"Parameters" on page 203
STANDARDS	Opt	ALTJCL	ACCEPT		W, C, HR	"Parameters" on page 208
		CARDS	2,W,50		W, C, HR	"Parameters" on page 208
		CIBATCH	ANY		W, C, HR	"Parameters" on page 208
		CICNT	2,1		W, C, HR	"Parameters" on page 208
		CIDEMAND	ANY		W, C, HR	"Parameters" on page 208
STANDARDS	Opt	PSTCNT	See parameter description for algorithm		W, C, HR	"Parameters" on page 208
		DBGCLASS	A		W, C, HR	"Parameters" on page 208
		FAILURE	RESTART	CLASS(FAILURE)	W, C, HR	"Parameters" on page 208
		JESMSG	NOTSO		W, C, HR	"Parameters" on page 208
		LINES	1,W,50		W, C, HR	"Parameters" on page 208
		BYTES	1500,W,50		W, C, HR	"Parameters" on page 208
		PAGES	500,W,50		W, C, HR	"Parameters" on page 208

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
STANDARDS	Opt	MAXJOBST	0		W, C, HR	"Parameters" on page 208
		MAXASST	0		W, C, HR	"Parameters" on page 208
		MAXINDD	MAXJOBST		W, C, HR	"Parameters" on page 208
		PRTY	0	CIPARM(PARM); CLASS(PRTY)	W, C, HR	"Parameters" on page 208
		SETUP	JOB	HWSNAME(TYPE); SETNAME(NAMES); //*MAIN	W, C	"Parameters" on page 208
		THWSSEP	IGNORE		W, C	"Parameters" on page 208
		INTPMID	01	CIPARM(PARMID)	W, C, HR	"Parameters" on page 208
		STCPMID	01	CIPARM(PARMID)	W, C, HR	"Parameters" on page 208
		TSOPMID	01	CIPARM(PARMID)	W, C, HR	"Parameters" on page 208
INTPROC	ST	//*MAIN	W, C, HR			"Parameters" on page 208
STANDARDS	Opt	STCPROC	ST	FSSDEF(PNAME)	W, C, HR	"Parameters" on page 208
		TSOPROC	ST		W, C, HR	"Parameters" on page 208
		SYSLINES	10.50		W, C, HR	"Parameters" on page 208
SYSID	Opt	NAME		NJERMT(BDTID)	W, C, HR	"Parameters" on page 219
		CLASS	108(S12)		W, C, HR	"Parameters" on page 219
SYSOUT	Opt	CLASS		NJERMT(PRTDEF)	W, C, HR	"Parameters" on page 221
		CARR			W, C, HR	"Parameters" on page 221
		CHARS		OUTSERV(CARRIAGE)	W, C, HR	"Parameters" on page 221
		CONTROL			W, C, HR	"Parameters" on page 221
		COPIES			W, C, HR	"Parameters" on page 221
		DEST	LOCAL	DEVICE(JNAME) (DGROUP) (HEADER)	W, C, HR	"Parameters" on page 221
		FLASH			W, C, HR	"Parameters" on page 221
		FORMS		OUTSERV(FORMS); DEVICE(FORMS)	W, C, HR	"Parameters" on page 221
		HOLD			W, C, HR	"Parameters" on page 221

Table 4. Initialization Statement Summary M thru Z (continued)

Initialization Statement	Req or Opt	Parameter	Parameter Defaults	Related Statement (Parameter)	Start Type to Modify	Page
SYSOUT	Opt	INT			W, C, HR	"Parameters" on page 221
		MODIFY			W, C, HR	"Parameters" on page 221
		OUTDISP			W, C, HR	"Parameters" on page 221
		OVFL			W, C, HR	"Parameters" on page 221
		PRTY			W, C, HR	"Parameters" on page 221
		SPART	default spool partition	SPART(NAME)	W, C, HR	"Parameters" on page 221
		STACKER			W, C, HR	"Parameters" on page 221
		TRAIN		OUTSERV(TRAIN); DEVICE(TRAIN)	W, C, HR	"Parameters" on page 221
		THRESHLD	99999999	OUTSERV(THRESHLD)	W, C, HR	"Parameters" on page 221
TRKGRPS	1,2	BUFFER(GRPSZ); SPART(GRPSZ)	W, C, HR	"Parameters" on page 221		
SYSOUT	Opt	TRUNC	YES or TRUNC/BUFFER value	BUFFER(TRUNC)	W, C, HR	"Parameters" on page 221
		TYPE	,,PRINT		W, C, HR	"Parameters" on page 221
		COMPACT	Default compaction table used	COMPACT	W, C, HR	"Parameters" on page 221
		CHNSIZE	DS		W, C, HR	"Parameters" on page 221
TRACK	Req	DDNAME		BUFFER(BUFSIZE); BADTRACK(DDNAME)	W, C	"Parameters" on page 228
		SPART		SPART(NAME)	W, C	"Parameters" on page 228
		STT	Allocates center 2 tracks to STT		**Cold Only**	"Parameters" on page 228
		STTL	Allocates center 2 tracks to STT		**Cold Only**	"Parameters" on page 228

Table 5. Summary of Initialization Statements/Parameters Summary - No Longer Supported

Initialization Statement	Parameter
BUFFER	FD
	JNAME
CONSOLE (BDT)	TYPE
	JNAME
	TYPE
	DEST
	UNIT
	MAIN
CONSOLE (JES3)	ALTCON
	DEPTH
	LL
	TIME
	LEVEL
CONSOLE (JES3)	PFK
	SP
	IOWAIT
CONSOLE (JES)	3290
	JNAME
	TYPE
	UNIT
CONSOLE (MCS)	LEVEL
	FLAG
	CONSBUF
	HARDCOPY
CONSTD	WTP
	DSN
	VOLSER
JES3LIB	UNIT
	CPUID
	STXTNT
	MODEL
MAINPROC	SID
NJECONS	SIZE=
PFK	N
	K
	E
	M

Correcting an incorrect parameter value

If you restart JES3 using an initialization stream that has an incorrect value for any of the parameters listed in Table 6 on page 19, JES3 uses the parameter's default (individual parameter descriptions in Chapter 2, "Initialization Statements," on page 21 define valid parameter values.) By using the parameter's default, JES3 can continue to run. Thus, you have a running system that you can use to correct the initialization stream.

To warn you about an incorrect subparameter, JES3 issues message IAT3255. This message identifies the affected parameter, the incorrect subparameter, and the default value.

If you do not want JES3 to continue to run with the subparameter default, restart JES3 using the corrected initialization stream.

Table 6. Defaults taken when parameters values are not valid

Statement	Parameter	Default
BUFFER	BUFSIZE FD GRPSZ MINBUF PAGES SPLIM	4084 512 30 16 1024,128,512 10,25
CLASS	IORATE JESMSG JOURNAL SPART SPIN TRKGRPS	MED JESMSG setting on STANDARDS statement NO default spool partition NO 1,2
COMMDEFN	LU	255
COMPACT	DEFAULT	N
CONSOLE (RJP)	LEVEL SAVEMSG	0 YES
CONSTD	PLEXSYN	*
DEVICE (Define I/O device)	BURST CARRIAGE CB CHARS CKPNT CKPNTPG CKPNTSEC DYNAMIC FLASH FORMS FSSNAME HEADER MODE MODIFY NPRO PAGELIM PM STACKER TRAIN XLATE WC WS	YES YES,STANDARD N YES,STANDARD 200(punch),10000(3800),2000(3211),1000(others) 200 pages 200 pages FSS=NO, non-FSS=YES YES,STANDARD YES,STANDARD JNAME specification YES With the FSSNAME parameter: FSS Otherwise: COMP YES,STANDARD STANDARD 0+ With MODE=FSS: (LINE,PAGE) With MODE=COMP: LINE YES,STANDARD YES,STANDARD YES (NO for IBM 3211 and compatible devices) STANDARD STANDARD
FSSDEF	DSPCNT MAXASST MSGDEST START TERM	2,1 0 42(JES) YES NO
GROUP	BAR MODE	16 JES
MAINPROC	SPART TRKGRPS USRPAGE	default spool partition 1,2 4
NETSERV	PORT ITRACE JTRACE VTRACE SYSTEM	0 NO NO NO the global processor

Table 6. Defaults taken when parameters values are not valid (continued)

Statement	Parameter	Default
OPTIONS	DUMP	JES
	DUPJOBNM	NO
	DUPLOGON	NO
	JOBTRACK	SYSPLEX
	INTRDR	20
	MT	OFF
	WANTDUMP	YES
	XCFGRPNM	nodename on home node or 'N1' if no home node
OUTSERV	CB	N
	NPRO	90
	OUTLIM	16777215
	STACKER	C
RESCTLBK	FCT	0
RJPLINE	I (1-character line interface)	A
	I (mode of operation)	Y
	S	2400
RJPTERM	O	DC3
RJPWS	C	R
	PL	2
	PR	1
	PU	0
	RD	1
SELECT	CHOICE	FFIT
	MAGEL	14
	MAGER	0
	SAGEL	14
	SAGER	0
	SBAR	16
	SDEPTH	255
SETPARAM	ADDRSORT	YES
	ALLOCATE	AUTO
	DSN	0
	FETCH	YES
	REMOUNT	1
	SMSSETUP	YES
SOCKET	PORT	0
	ITRACE	NO
	JTRACE	NO
	VTRACE	NO
SPART	DEF	NO
	GRPSZ	30
	INIT	NO
	OVRFL	YES
	SPLIM	(10,25)
STANDARDS	ALTJCL	ACCEPT
	BYTES	1500,WARNING
	CARDS	2,WARNING
	CICNT	(2,1)
	JESMSG	NOTSO
	INTPMID	01
	INTPROC	ST
	LINES	1,WARNING
	MAXJOBST	0
	MAXASST	0
	PAGES	500,W,50
	PRTY	0
	SETUP	JOB
SYSOUT	SPART	default spool partition
	TRKGRPS	1,2

Chapter 2. Initialization Statements

This chapter describes each of the JES3 initialization statements. Each JES3 initialization statement description consists of the following sections:

Statement Summary

This section consists of a table with the following standard parts.

- Required/Optional Statement

  Indicating whether this statement must be in the JES3 initialization stream or can be omitted.

- Statement Default

  An identification of any defaults that will be set if this statement is specified with "no" parameters.

- Placement in initialization stream

  This specifies whether this initialization statement must be position in the initialization stream in any particular way.

- Coding Considerations

  A description of any special ways the statement should be specified. Also, an indication (if any) those other initialization statements that this statement is dependent on.

- Security Usage

  Documents any information about authorization characteristics that relate to the initialization statement

- Performance Considerations

  A description of any special performance considerations that relate to the initialization statement.

- Initialization Statement Overrides

  A description of how or when the original settings of the initialization statement can be overwritten.

- Restart or Command Modification

  A description of the various ways the settings on the initialization statement can be modified.

Syntax and Parameters

A syntax diagram and description of parameters for specifying the initialization statement.

Examples

Various examples of specifying the initialization parameters.

General Syntax

How to Read a Syntax Diagram

Syntax is described using the structure defined below.

- Read the syntax diagrams from left to right, from top to bottom, following the path of the line.

  The ►►── symbol indicates the beginning of a message syntax.

  The ──► symbol indicates that the message syntax is continued on the next line.

The ►── symbol indicates that the message syntax is continued from the previous line.

The ──►◄ indicates the end of the message syntax.

A lower-case word indicates a variable.
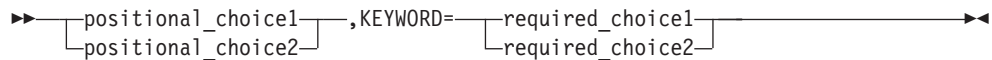
- Strings of fixed text, keywords (and their value), and positional items that always appear in the message are shown on the horizontal line (the main path).

```
►►──positional_item──,required_item──,KEYWORD=──required_value──────────────►◄
```
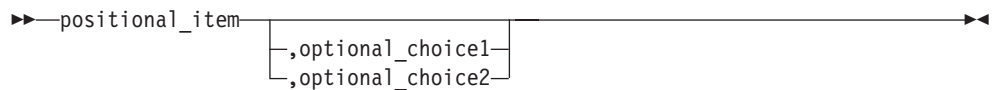
- Strings of fixed text, keywords (and their value), and positional items that might not appear in the message are shown below the main path.

```
►►──────────────────────────────────────────────────────────────►◄
    └─optional_item─┘    └─,KEYWORD=──optional_item─┘
```
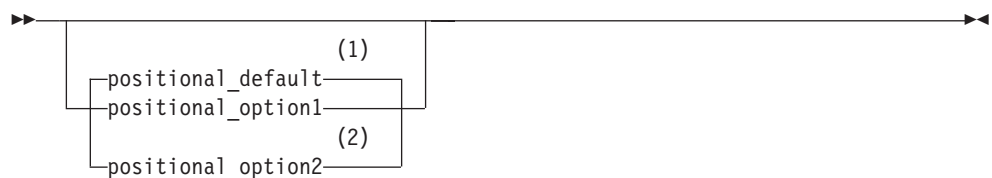
- If one of several items might appear in a message, they appear vertically, in a stack. If some item always appears in the message, an item is shown on the main path.

```
►►──┬─positional_choice1─┬──,KEYWORD=──┬─required_choice1─┬──────►◄
    └─positional_choice2─┘             └─required_choice2─┘
```

- If there is a possibility that none of the items will appear in the message, the entire stack is shown below the main path.

```
►►──positional_item──────────────────────────────────────────────►◄
                    ├─,optional_choice1─┤
                    └─,optional_choice2─┘
```

- If one of the items has a default, it appears above the main line (for that item) and the overriding choices will be shown on or below the main line. For POSITIONAL items the syntax is as follows:

```
►►──────────────────────────────────────────────────────────────►◄
    │                        (1)      │
    ├─positional_default────┤
    ├─positional_option1────┘
    │                        (2)
    └─positional_option2────┘
```

Notes:

1   If a positional parameter is not specified, the positional default is used

2   If a positional parameter is coded, then any one of the 3 positional parameters can be specified.

Note: This does not apply to messages.

For KEYWORD items the syntax is as follows:

```
 ►►─────┬──────────────────────────────────┬──────────────────► ◄
        │                    (1)            │
        │            ┌─keyword_default─────┐│
        └─KEYWORD=───┼─keyword_value1──────┤│
                     │          (2)         │
                     └─keyword_value2──────┘
```
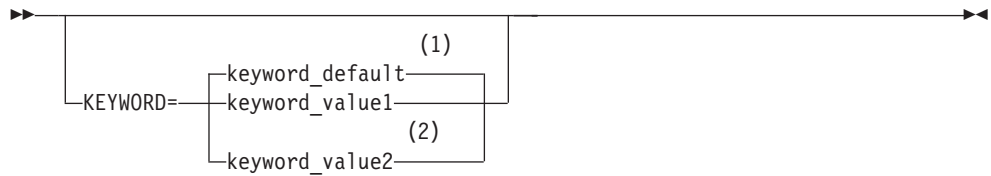
Notes:

1   If KEYWORD is not coded, the keyword_default is used.

2   If the KEYWORD is coded, then the keyword_default or the keyword value
       override MUST be coded.

Note: This does not apply to messages.

- An arrow returning to the left above the main line indicates an item that can be
  repeated indefinitely.

```
                    ┌──────,──────┐
 ►►─KEYWORD─────────▼─repeatable_item─┘────────────────────────► ◄
```

- A repeat arrow with a syntax note indicates how many times this can be
  repeated.

```
                    ┌──────,──────┐
                    │             │         (1)
 ►►─KEYWORD─────────▼─repeatable_item─┘────────────────────────► ◄
```
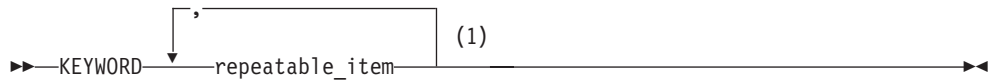
Notes:

1   (1) Specify the <repeatable_item> 1 to n times.

- Syntax is occasionally broken into fragments if the inclusion of the fragment
  would overly complicate the main syntax diagram.

```
 ►►─KEYWORD─┤ fragment ├────────────────────────────────────────► ◄
```

fragment:

```
 ├─┬─────────────────────────────────────────────┬──────────────┤
   ├─,optional_choice1───────────────┐            │
   │                          ┌─default_choice──┐ │
   └─,optional_choice2────────┼─────────────────┤─┘
                              └─,optional_choice─┘
```
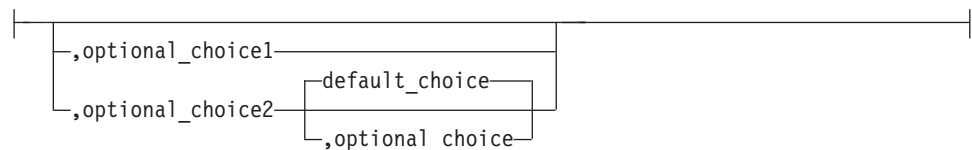
ACCOUNT (Job Accounting)

Use the ACCOUNT initialization statement to define default job accounting
information. JES3 assigns this default if the operator omits the ACCT parameter on
a JES3 *CALL command.

Statement summary

Table 7. ACCOUNT summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	(0,0,0,0)
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	The maximum length for accounting information is 42 characters including parentheses, commas, and apostrophes. All characters except blanks are valid. If the special character is an apostrophe, specify it as two consecutive apostrophes.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None. However, the ACCT parameter on JES3 *CALL commands overrides the accounting information that you specify on the ACCOUNT statement.
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax
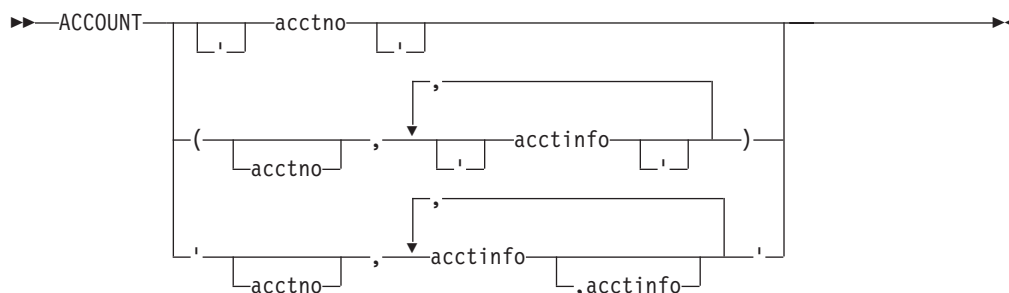
Parameters

acctno
Specifies an account number only. If this account number contains any special characters, enclose the entire account number in apostrophes.

acctno
Specifies that accounting information consists of either the account number, with one or more items of additional information, or only the additional accounting information. All parameters within the parentheses are considered separate fields. Enclose all special characters except hyphens in apostrophes. If acctno is not specified, a comma must follow the left parenthesis.

acctno,acctinfo
Specified if accounting information consists of either the account number, with one or more items of additional accounting information, or only the additional accounting information. All information within the apostrophes is to be considered one field.

Examples

Example 1: The following example specifies only the account number without special characters.

```
ACCOUNT,12A75
```

Example 2: The following example specifies only the account number with two special characters—a period (.) and an apostrophe (').

```
ACCOUNT,'12A.75'20'
```

Example 3: The following example specifies an account number and two items of additional accounting information. All three parameters are considered separate fields.

```
ACCOUNT,(12A75,DEPT-D58,706)
```

Example 4: The following example shows the same parameters as those specified above; however, all information between the apostrophes is considered to be one field.

```
ACCOUNT,'12A75,DEPT-D58,706'
```

Example 5: The following two examples show special characters in the account number parameter and in the first parameter of additional information.

```
ACCOUNT,('B.93','DEPT/99',BLDG002)     ACCOUNT,'B.93,DEPT/99,BLDG002'
```

Example 6: The following examples do not supply an account number however, the examples include other accounting information.

```
ACCOUNT,(,'H.J.WELLSCOMPANY',NYC,55-33,1,1,3)
ACCOUNT,',H.J.WELLSCOMPANY,NYC,55-33,1,1,3'
```

BADTRACK (Bypass Defective Tracks)

Use the BADTRACK statement to identify defective tracks on a spool volume. JES3 dynamically adds an entry to the BADTRACK table when a defective track is discovered and issues a message to the console operator that identifies the defective track. If possible, add a BADTRACK statement to your initialization stream at that time so that JES3 keeps a record of the defective track across a warm or cold start. If you cannot add a BADTRACK statement immediately, ensure that you add a BADTRACK statement before the next warm or cold start.

Statement summary

Table 8. BADTRACK summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None. If the initialization stream contains neither BADTRACK nor FORMAT statements and defective tracks existed on a spool volume before the most recent warm or cold start, I/O errors will occur when JES3 attempts to use the track group containing those tracks.
Placement in Initialization Stream	This statement must appear before the ENDJSAM statement.

Table 8. BADTRACK summary (continued)

Variable	Value
Coding Considerations	1. Specify only one track on a statement. The maximum number of BADTRACK statements that you can specify is 32,767.
	2. You cannot use a BADTRACK statement to identify defective tracks in the single track table (STT).
	3. Do not substitute a FORMAT statement for a BADTRACK statement, although it also causes JES3 to identify defective tracks.
	4. Dependent on the TRACK and FORMAT statements.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start or warm start for all parameters. You can use the `*MODIFY,Q,DD=ddname,CYL=cyl,TRK=trk` command to add badtrack records.

Syntax

```
►►──BADTRACK──,DDNAME=ddname──,CYL=cyl──,TRK=trk─────────────────────►◄
```

Parameters

DDNAME=
Specifies the name of the DD statement or matches the ddname on the DYNALLOC statement that defines the spool volume with the defective track.

JES3JCT is not a valid ddname for this parameter.

CYL=
Specifies a one- to seven-digit hexadecimal value that identifies the cylinder containing the defective track.

TRK=
Specifies a one- to four-digit hexadecimal value that identifies the defective track. When specified with more than one digit, only the low digit can be nonzero.

Example

The following example assumes that tracks 1 and 13 are defective on cylinder 10 of SPOOL2. If you warm start or cold start JES3 and a FORMAT initialization statement is not in the initialization stream, BADTRACK statements must be in the stream to prevent JES3 from using these tracks. If you do not include these BADTRACK statements, tracks 1 and 13 are assigned for I/O activity and data on them may be lost.

```
BADTRACK,DDNAME=SPOOL2,CYL=000A,TRK=0001
BADTRACK,DDNAME=SPOOL2,CYL=000A,TRK=000D
```

BUFFER (JES3 Spool Work Buffers)

Use the BUFFER statement to define the size of the JES3 buffer pool and the length of JES3 buffers and spool data set records.

Statement Summary

Table 9. BUFFER Summary

Variable	Value
Required/Optional Statement	Optional

Statement Default	`BUFFER,BUFSIZE=4084,PAGES=(1024,128,512),`
	`GRPSZ=30,MINBUF=16,SPLIM=(10,25),`
	`TRUNC=YES`

Placement in Initialization Stream	This statement must appear before the ENDJSAM statement.
Coding Considerations	If you change the BUFSIZE parameter and do not reformat the spool data sets before the next cold start, include FORMAT statements in the initialization stream during the next cold start.
Performance Considerations	1. In selecting the size of the buffer pool, make sure the size is large enough for all functions to be active at the same time. Also, it is recommended that you make the buffer pool larger than the value you calculate. The larger buffer pool will better accommodate bursts of I/O activity. 2. If virtual storage in the JES3 global address space is not constrained, the recommended buffer size is 4084. Buffers do not span page boundaries; therefore, specifying 2036 or less provides two buffers per page. Specifying a larger value provides one buffer per page. These recommended values optimize virtual storage usage but do not optimize spool usage.
Security Usage	None
Initialization Stream Overrides	The GRPSZ and SPLIM parameters on the SPART statement override the GRPSZ and SPLIM parameter on this statement. The TRUNC parameter on the SYSOUT statement overrides the TRUNC parameter on this statement for the specified SYSOUT class.
Restart or Command Modification	• Cold start to change the size of a buffer (BUFSIZE). • Warm start to replace a spool data set (WR) and to modify the GRPSZ and SPLIM parameters. • Hot start with refresh to modify the PAGES, MINBUF and TRUNC parameters. All other parameters are syntax checked only; the value from the last warm or cold start will be used. • The statement is accepted, but ignored by *MODIFY CONFIG.

Syntax

```
►►──BUFFER──────────────────────────────────────────────────────►
             │                  ┌─4084─┐          │
             └─,BUFSIZE=──┴─nnnn─┘──────┘
```

```
      ┌──────────────(1024,128,512)──┐                    ┌─30──┐
├──,PAGES=──┤                              ├──────,GRPSZ=──┤     ├──────────┤
             └──(─global─,local─,cifss─)──┘                    └─nnn─┘
```

```
            ┌─16─┐                  ┌─10──┐ ┌─25───┐
├──,MINBUF=──┤    ├──,SPLIM=──(──────┤     ├─┤      ├──)─┤───────────────────┤
            └─nn─┘                   └─min─┘ └─marg─┘
```

```
           ┌─YES─┐
├──,TRUNC=──┤     ├──────────────────────────────────────────────────────────◄┤
           └─NO──┘
```
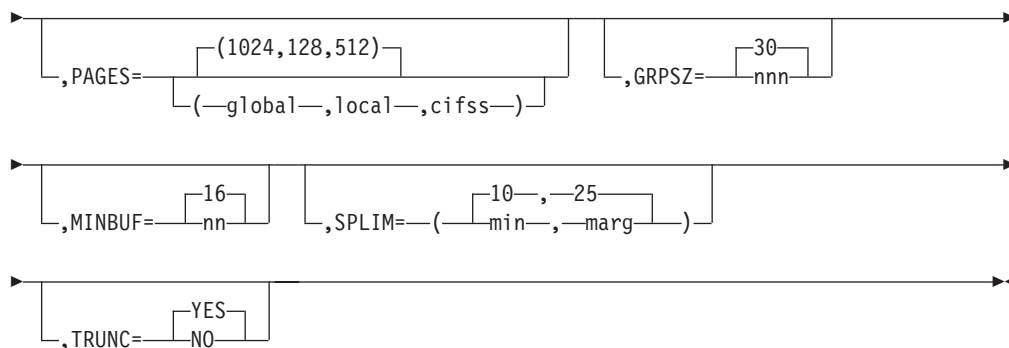
Parameters

BUFSIZE=

Specifies the length, in bytes, of the data portion of each JES3 buffer and of each record in the spool data sets. The value must be a multiple of four in the range from 1952 to 4084. If virtual storage in the JES3 global address space is not constrained, the recommended value is 4084. Otherwise, the recommended value is 2036. Buffers do not span page boundaries; therefore, specifying 2036 or less provides two buffers per page. Specifying a larger value provides one buffer per page. These recommended values optimize virtual storage usage but do not optimize spool usage. For further guidelines in helping you define the BUFFER parameter, see *z/OS JES3 Initialization and Tuning Guide*.

The number of buffers is computed at initialization and is based on the number of pages and buffer size specified on the PAGES and BUFSIZE parameters of this statement.

If you change the BUFSIZE parameter, you must cold start JES3 and reformat all of the spool data sets. For a discussion about how to format the spool data sets, see "Formatting Spool Data Sets" in *z/OS JES3 Initialization and Tuning Guide* .

Note: The maximum record size that can be written to SYSOUT in LINE mode is 60 bytes less than the defined buffer size. JES3 used approximately 60 bytes for spool control information.

If you specify an invalid subparameter, JES3 uses the parameter default.

PAGES=

Specifies the size of the primary allocation of JES3 buffers in the JES3 global address space, all JES3 local address spaces, and all C/I functional subsystem (FSS) address spaces, respectively. The maximum number of pages that you can define is 16,383 or 32,767, depending on the buffer size that you specify on the BUFSIZE parameter.

The total number of pages that you can specify must be between 16 and 32,767 inclusive, depending on the number of buffers per page.
- If you specify a buffer size greater than 2036 bytes, the maximum number of pages that you can specify is 32,767.
- If you specify a buffer size of 2036 or less, the maximum number of pages that you can specify is 16,383.

You specify the size of buffers on the BUFSIZE parameter. For guidelines to help you select a value for this parameter, see "Determining the Size of the JES3 Buffer Pool" in *z/OS JES3 Initialization and Tuning Guide*.

JES3 automatically expands the size of the JSAM buffer pool when it detects a buffer shortage. For each expansion, JES3 increases the size of the buffer pool by twice the value that you specify on this parameter, up to a maximum of 16 times or 32,767 JSAM buffer units, whichever occurs first. For additional information about determining the size of the JSAM buffer pool, see *z/OS JES3 Initialization and Tuning Guide*.

If you specify an invalid subparameter, JES3 uses the parameter default.

GRPSZ=

Specifies the number of spool records in each track group. (The BUFSIZE parameter determines the size of each spool record.) The number must not be greater than 999. JES3 rounds the specified value up to the nearest number of records in a whole physical track for the selected spool device type. For guidelines to help you select a value for this parameter, see "Determining the Size of a Track Group" in *z/OS JES3 Initialization and Tuning Guide*.

If you change the group size parameter, you must perform a warm start to replace a spool data set (WR) and reformat all of the spool data sets. For a discussion about how to format the spool data sets, see "Formatting Spool Data Sets" in *z/OS JES3 Initialization and Tuning Guide*.

If you specify an invalid subparameter, JES3 uses the parameter default.

MINBUF=

Specifies the value that JES3 uses to calculate the acceptable minimum number of free JSAM buffers. The value you specify can be any decimal integer between 8 and 64, inclusive.

To calculate the acceptable minimum number of free JSAM buffers, JES3 divides the specified value into the total number of JSAM buffers. The total number of buffers includes the primary allocation of buffers as defined on the PAGES parameter plus all secondary buffer allocations. The quotient defines the acceptable minimum number. JES3 ignores the remainder. All secondary allocations of buffers must be exhausted before a minimal buffer condition exists.

When the number of free JSAM buffers is equal to or less than the acceptable minimum number, JES3 issues an action message. If the operator does not take corrective action, stop some converter interpreters, for example, JES3 may go into the wait state.

If JES3 encounters a minimum buffer condition frequently, increase the number of JSAM buffers during the next warm start or cold start. To increase the number of buffers, increase the value of the PAGES parameter on the BUFFER statement.

If the minimum buffer condition occurs for a C/I FSS address space, JES3 issues a warning message.

If you specify an invalid subparameter, JES3 uses the parameter default.

SPLIM=

Specifies the minimum and marginal percentages of spool space still available in active spool partitions. An active spool partition is one containing at least one spool data set. If the minimal or marginal percentages of spool space are reached, indicating that a spool partition is nearly full, JES3 issues action messages to the operator.

min

Specifies the percentage of total spool space in an active spool partition which, when that percentage is all that is still available, defines a

minimum spool space condition. For example, if you specify a value of 10, a minimum spool space condition exists when 10% or less of the spool space in an active spool partition is still available.

The percentage of spool space defining this condition may be between 0 and 99. It must, however, be smaller than or equal to the percentage defining a marginal spool space condition (see the marg subparameter).

When a spool partition reaches a minimum spool space condition, JES3 issues a message stating that this condition has occurred. The message alerts the operator to inquire whether the spool partition automatically overflows into another partition. If the spool partition does overflow, no operator action is required. Otherwise, the operator can use JES3 commands to take appropriate actions. For information on actions to take, see "Balancing the Workload Across Partitions" in *z/OS JES3 Initialization and Tuning Guide*.

If a minimum spool space condition arises on the default spool partition, JES3 suspends all SYSOUT buffer processing. JES3 does not resume SYSOUT buffer processing until enough spool space is freed to reach a marginal spool space condition.

Always specify a minimum spool space percentage for the default spool partition so that enough spool space remains to perform a warm start. Otherwise, if JES3 requires a warm start and not enough spool space is available, you must perform a cold start.

marg
Specifies the percentage of total spool space in an active spool partition which, when that percentage is all that is still available, defines a marginal spool space condition. For example, if you specify a value of 20, a marginal spool space condition exists when 20% or less of the spool space in an active spool partition is still available. The percentage of spool space defining this condition may be between 0 and 99.

When a spool partition reaches a marginal spool space condition, JES3 issues a message stating that this condition has occurred. The message alerts the operator to inquire whether the spool partition automatically overflows into another partition. If the spool partition does overflow, the operator need not take any action. Otherwise, the operator can use JES3 commands to take appropriate actions. For information on actions to take, see "Balancing the Workload Across Partitions" in *z/OS JES3 Initialization and Tuning Guide*. When a marginal spool space condition arises, job selection is suspended.

If you specify an integer greater than the maximum allowable, JES3 uses the parameter default. If you specify a negative integer or a non-numeric character, JES3 issues a message and terminates initialization.

If you specify an invalid subparameter, JES3 uses the parameter default.

TRUNC=
Specifies whether you want JES3 to truncate trailing blanks from all SYSOUT data that is produced in the complex.

YES
Indicates that you want JES3 to truncate trailing blanks from all SYSOUT.

NO Indicates that you do not want JES3 to truncate trailing blanks from all SYSOUT.

Example

In the following example, the BUFFER statement specifies that:

- A minimal spool space condition exists when only 3% of the total spool space in an active spool partition is still available
- A marginal spool space condition exists when only 5% of the total spool space in an active spool partition is still available
- The JES3 buffer pool size for the JES3 global processor is 52 pages
- The size of a track group is 12 spool records
- The size of a JES3 buffer and of a spool record is 1952 bytes

```
BUFFER,SPLIM=(3,5),PAGES=52,GRPSZ=12,BUFSIZE=1952
```

CIPARM (Converter/Interpreter Parameters)

Use the CIPARM statement to specify the options to be used by the MVS converter/interpreter (C/I). These options are used as system defaults applied to certain JCL statement parameters and other options for jobs scheduled on any main.

For jobs submitted to a node for execution through NJE, the CIPARM statement with PARMID=01 is always used to supply the default values. If no CIPARM PARMID=01 statement is explicitly coded, the statement default as identified in the Statement Summary section is used. These default values can be overridden by explicitly coding a CIPARM statement with PARMID=01.

Statement Summary

Table 10. CIPARM Summary

Variable	Value
Required/Optional Statement	Optional

Statement Default	`CIPARM,PARM=(00000300025631E00011A),PARMID=01`
	`            ,AUTH=ALL,COMMAND=IGNORE`
	
	The CIPARM statement with a PARMID of 01 is always used to supply default values to jobs submitted to a node through NJE.

Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	• Specify the PARMID parameter to distinguish option lists if you include more than one CIPARM statement in the initialization stream.
Security Usage	Use the PARM parameter to define a 21-character parameter string that the MVS Converter/Interpreter uses when processing jobs. The fourteenth character specifies whether to ignore the bypass label processing (BLP) JCL option.
Performance Considerations	None
Initialization Stream Overrides	The PRTY parameter on the STANDARDS statement overrides any value specified in columns two and three of the option list.

Table 10. CIPARM Summary (continued)

Variable	Value
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters. • If you add, change, or delete a CIPARM statement during a hot start with refresh, you should restart any C/I FSS's that are active to make sure that the changes are incorporated.

Syntax

```
►►──CIPARM─────────────────────────────────────────────────────────────────────►
          │                  ┌─00000300025631E00011A─┐ │         ┌─01─┐
          └─,PARM=─(──────────┴─optionlist────────────┴─)─┘ └─,PARMID=──┴─id─┘

►──────────────────────────────────────────────────────────────────────────────►
    │              │ ┌─ALL──┐
    └─,REGION=nnnnx─┘ └─,AUTH=─┼─INFO─────────────────────────────┤
                               └─(─────────────────────────────)─┘
                                  └─SYS─┘ └─,IO─┘ └─,CONS─┘

►──────────────────────────────────────────────────────────────────────────────►◄
    │              ┌─IGNORE──┐
    └─,COMMAND=────┼─DISPLAY─┤
                   ├─EXECUTE─┤
                   └─VERIFY──┘
```
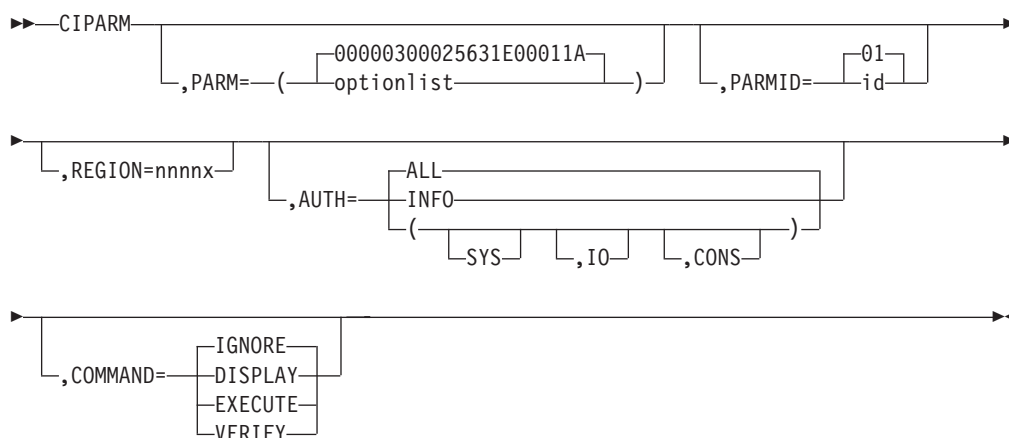
Parameters

AUTH=

Specifies which commands will be accepted through COMMAND JCL statements in the job stream. The groups includes:

SYS
system commands

IO input/output commands

CONS
console commands

INFO
information commands (such as display)

ALL
all operator command types

For an explanation of operator command groups and the relationship of JES3 to MVS command groups, see *z/OS JES3 Commands* and *z/OS MVS System Commands*, respectively.

COMMAND=

Specifies the disposition of commands entered through COMMAND JCL statements in the job stream as follows.

DISPLAY
The command is displayed and scheduled for execution.

EXECUTE
The command is scheduled for execution.

IGNORE
The command is ignored (that is, interpreted as a "no operation".).
IGNORE is the default.

VERIFY
Specifies that the system displays the command, asks the operator whether the command should be executed, and if the operator replies "YES", schedules the command for execution.

PARM=
Specifies an option list of 21 EBCDIC characters. The option list has 10 fields that you must code in the format shown. Two fields have a fixed value always set by JES3: positions 13 and 15-18. Six fields are set at initialization: positions 2-3, 4-9, 10-12, 19, 20, and 21. JES3 restricts one field (position 1) to certain values. If you specify any value incorrectly, the default value *for that field* is used. You can substitute values only for the underscored items in the following format: b̲p̲p̲m̲m̲m̲m̲s̲s̲c̲c̲c̲r̲l̲a̲a̲a̲a̲e̲f̲h̲

b Specifies whether an account number or programmer name is required for this job, and whether the scheduler work area is to be located above 16-megabytes when the job executes. The following table lists the combination of options.

b	SWA Above 16 Mg	Acct. Num. Required	Prog. Name Required
0	No	No	No
1	No	No	Yes
2	No	Yes	No
3	No	Yes	Yes
4	Yes	No	No
5	Yes	No	Yes
6	Yes	Yes	No
7	Yes	Yes	Yes

No values other than 0 to 7 are valid. Default value is 0.

pp Specifies the default job priority. This field is ignored by JES3 because the default priority comes from the job specified by the PRTY parameter on the STANDARDS statement. The range of values is from 00 to 14; the default value is 00.

mmmmss
Specifies the maximum length of time each job step may execute. When a step exceeds this limit, the step is canceled. JES3 assigns the time limit defined in the initialization stream when a job's JOB or EXEC JCL statement does not specify a time limit.

The first 4 characters indicate minutes; the last 2 characters indicate seconds. The maximum time limit that can be specified on the CIPARM statement is 999959 (approximately 1 week); the default time limit is 30 minutes (003000). If you want to allow job steps to run for an unlimited duration, specify 144000.

Users can specify a time limit greater or less than the initialization stream default by explicitly coding a time limit on a job's JOB or EXEC JCL statement. The maximum time limit that can be specified in a job's JCL is 357912 minutes, 59 seconds (approximately 249 days).

ccc

Specifies the job-step region default. Specify 3 numeric characters as the number of 1024-byte blocks assigned to each job step. (Do not specify 000.) JES3 assigns this region size to a step when the JOB or EXEC statement does not specify the region size and does specify ADDRSPC=VIRT for the step. The default value is 256.

Note:

1. You must specify this value or the REGION parameter if you are defining a C/I FSS. The default does not provide adequate region size.

2. This is ignored if the REGION parameter is specified.

l Specifies how the BLP parameter of the DD statements is to be processed:

    0   Specifies that the BLP parameter is to be ignored; the LABEL parameter is processed as if NL was specified.

    1   Specifies that the BLP parameter is to be processed as intended. The default is 1.

e Specifies the job MSGLEVEL default.

    0   indicates that only the JOB statement is to be written as output.

    1   indicates that all input JCL statements (including in-stream procedures) are to be recorded in the system message data set. The default is 1.

    2   indicates that only input JCL statements are to be written.

f Specifies the allocation MSGLEVEL default.

    0   indicates that no allocation/termination messages are recorded in the system message data set unless the job terminates abnormally.

    1   indicates that all allocation/termination messages are recorded in the system message data set. The default is 1.

h Specifies the MSGCLASS default. The default class is A.

The option list must be 21 characters long in the fixed format described above. The installation may specify only those values defined by b, mmmmss, ccc, l, e, f, and h. JES3 values are assumed for the other fields.

PARMID=

Specifies a 2-byte identifier associated with this option list. This parameter provides the facility to have a variety of C/I option lists. The operator may select the option list to be used by specifying the identifier on the *CALL, CR, DR, or TR command.

The CIPARM statement with a PARMID of 01 is always used to supply default values to jobs submitted to a node through NJE. If no CIPARM PARMID=01 statement is coded, JES3 provides a statement containing the values identified by the Statement Default entry shown in the Statement Summary section.

REGION=

Specifies the job-step region default size.

nnnn

Specifies the 1 to 4-digit number of units used for the default region size for a job step. This value overrides the region size in the PARM option list, and is otherwise processed the same way. If you do not specify this parameter, JES3 obtains the region size from the PARM option list.

x

Indicates the unit of measure as kilobytes (K) or megabytes (M)

- For nnnnK, the maximum allowable value is 9999K
- For nnnnM, the maximum allowable value is 2047M

Note:

1. The CIPARM values for the two MSGLEVEL subparameters are defaults and are applied on a subparameter basis. Each CIPARM MSGLEVEL default value is used if its corresponding MSGLEVEL subparameter is not specified on the JOB card in the JESJCLIN data set. For example, if CIPARM CIPARM,PARM=(00000003006030E00021B),PARMID=10 is used with JOB card _//MYJOB JOB MSGLEVEL=(,0),... the MSGLEVEL would be (2,0). The first MSGLEVEL subparameter is not specified on the JOB card, so the CIPARM default value (2) is used. The second subparameter is specified on the JOB card, so that is the value used.

   If no MSGLEVEL is specified on the JOB card, then both CIPARM defaults are used (MSGLEVEL=(2,1)). The MSGLEVEL specified on the JOB statement in the JESJCLIN data set is not updated to reflect any changes made when applying the CIPARM MSGLEVEL defaults.

2. For started tasks with JCL obtained from a procedure in a JES3 managed procedure library, START command processing generates a JOB card. If the START command did not request a MSGLEVEL, then MSGLEVEL=1 is appended to the generated JOB card. When that JCL is passed to JES3, the rules described in the previous note are used. For additional information on the START command, see *z/OS MVS System Commands*. For additional information on MSGLEVEL and started tasks, see *z/OS MVS JCL Reference*

Example

In the following example, a C/I parameter list identified as 10, specifies a default region size as 60K, a default label processing option which ignores the bypass label processing parameter, and a default message class of B.

```
CIPARM,PARM=(00000003006030E00011B),PARMID=10
```

CLASS (JES3 Job Class Definition)

Use the CLASS initialization statement to define the characteristics of JES3 job classes. A CLASS statement must define each class that can appear on the //*MAIN control statement.

Statement Summary

Table 11. CLASS Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.

CLASS

Table 11. CLASS Summary (continued)

Variable	Value
Coding Considerations	1. You can define up to 255 classes. 2. This statement has dependencies on the SPART initialization statement. During a hot start with refresh, JES3 does not process the SPART statement but uses the SPART statement from the last warm or cold start. If you add a SPART statement during a hot start with refresh, JES3 ignores it and issues error messages if the CLASS statement you use references the SPART statement that you attempted to add during a hot start with refresh. 3. The IORATE= and LSTRR= keyword parameters are ignored for job classes that are associated with WLM-managed job class groups. 4. For started tasks, all CLASS initialization parameters are ignored except the following: • CI scheduling (CIDEMAND parameter on the CLASS initialization statement) • Job class group name (GROUP parameter on the CLASS initialization statement) • Device fencing (EXRESC and DEVPOOL parameters on the GROUP initialization statement associated with this CLASS initialization statement) • Spoolpartitioning (SPART parameter on the CLASS initialization statement) • Track group allocation (TRKGRPS parameter on the CLASS initialization statement)
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	1. The specification of the TRKGRPS parameter on the SYSOUT statement and //*MAIN statement overrides the specification on the CLASS statement. If you do not specify the TRKGRPS parameter on the CLASS statement or any of the statements that override the CLASS statement, JES3 uses the specification given (or defaulted to) on the MAINPROC statement. 2. For individual jobs, the //*MAIN JES3 control statement and the EXEC JCL statement can override certain parameters on the CLASS statement. See individual parameter descriptions.

Table 11. CLASS Summary (continued)

Variable	Value
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters. If you delete a CLASS initialization statement during a hot start with refresh and there are jobs referencing that job class, the job's will be placed in hold status. JES3 failures can occur if any of these jobs are in execution. • Use the `*MODIFY,G,main,CLASS` command to activate or deactivate a class. • Use the `*MODIFY,C=class,SP=spart` command to modify the spool partition. • Use the `*MODIFY,C=class,SDEPTH=` command to modify the setup depth (SDEPTH). • Use the `*MODIFY,C=class,TDEPTH=` command to modify the TDEPTH parameter. • Use the `*MODIFY,C=class,MDEPTH=` command to modify the MDEPTH parameter. • Use the `*MODIFY,C=class,TLIMIT=` command to modify the TLIMIT parameter. • Use the `*MODIFY,C=class,GROUP=` command to modify the group assigned to a class. • Use the `*MODIFY,C=class,JESMSG=` command to modify whether to create or suppress the JESMSGLG data set for jobs that run in this class. • Use the `*MODIFY,C=class,SPIN=` command to modify whether to spin off or not spin off the JESlog (JESMSGLG and JESYSMSG) data sets for jobs running in this class and whether the spin off is automatic. • Use the `*MODIFY,C=class,SYSSYM=` command to modify the SYSSYM parameter.

Syntax

```
►►──CLASS──,NAME=classname──────────────────────────────────────────────►
                          └─,CIBATCH=──┬─CLASS─┬──┘
                                       ├─JOB───┤
                                       └─ANY───┘

►─────────────────────────────────────────────────────────────────────►
  └─,CIDEMAND=──┬─CLASS─┬──┘  └─,DEF=YES─┘  └─,FAILURE=──┬─CANCEL──┬──┘
               ├─JOB───┤                                ├─HOLD────┤
               └─ANY───┘                                ├─PRINT───┤
                                                        └─RESTART─┘

►─────────────────────────────────────────────────────────────────────►
  └─,GROUP=──┬─JS3BATCH──┬──┘  └─,IORATE=──(1)──┬─MED──┬──┘
            └─groupname─┘                       ├─HIGH─┤
                                                └─LOW──┘

►─────────────────────────────────────────────────────────────────────►
  └─,JESMSG=──┬─LOG───┬──┘  └─,JOURNAL=──┬─NO──┬──┘  └─,LSTRR=──(1)──┬─0──┬──┘
             └─NOLOG─┘                   └─YES─┘                    └─nn─┘
```

```
                ┌─────────────────────────┐
►►──┬─────────────────────────────────────────────────┬──►
    └─,MDEPTH=──(──procname──,depth──┬─────────────────┤  )
                                     └─,procname──,depth─┘
```

```
        ┌────────────────────────────────┐
►──┬────────────────────────────────────┬──┬───────────┬──┬────────────┬──►
   └─┬─,MLIMIT=──┤ Class and Limit ├──┘     └─,PRTY=nn─┘  └─SDEPTH=nnn─┘
```

```
►──┬─────────────────────────┬──┬────────────────────────┬──►
   └─,SPART=partitionname──┘     └─,SPIN=──┬─NO──────────────┬─┘
                                           ├─YES─────────────┤
                                           ├─+hh:mm──────────┤
                                           ├─hh:mm───────────┤
                                           └─nnn/nnnK/nnnM───┘
```

```
►──┬──────────────────────────────┬──►
   └─,SYSSYM=──┬─DISALLOW─┬──┘
               └─ALLOW────┘
```

```
►──┬─────────────────────────────────────────┬──,TDEPTH=nnn──►
   └─,SYSTEM=──┬─ANY──────────────────────────┬─┘
              ├─LOCAL────────────────────────┤
              ├─JES3─────────────────────────┤
              ├─GLOBAL───────────────────────┤
              ├─procname─────────────────────┤
              │         ┌───────────────┐    │
              └─┬───┬──procname──┬──────────┬─┘
                └─/─┘            └─,procname─┘
```

```
►──┬──────────────────────────────┬──►
   └─,TLIMIT=──┤ Class and Limit ├──┘
```

```
►──┬───────────────────────────────────────────┬──►◄
   └─,TRKGRPS=──(──┬─1──────┬──┬─,2──────┬──)──┘
                   └─prigrps─┘  └─,secgrps─┘
```

Class and Limit:

```
            ┌─────────────────────────┐
├──(──classname──,──limit──┬─────────────────────┬──)──────────────┤
                           └─,classname──,──limit─┘
```

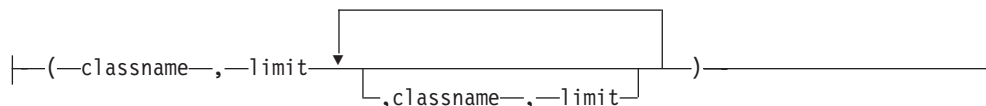**Notes:**

1   The parameter is ignored for job classes that are associated with WLM-managed job class groups.

Parameters

NAME=

Specifies the 1-8 character name of the job class. This name corresponds to the CLASS parameter on the //*MAIN control statement. If you omit DEF=YES from all CLASS statements in the initialization stream, JES3 defines JS3BATCH as the default class.

CIBATCH=
Indicates whether batch jobs of this class must have CI processing limited to certain processors. If specified for a class, this will override the value specified on the CIBATCH parameter on the STANDARDS statement. If not specified, JES3 will use the value specified on or defaulted to on the STANDARDS statement.

- JOB - indicates CI processing must be performed on a system on which the job is eligible to run.

  Note: Either the SYSTEM or SYSAFF parameter on the JOB control statement, or the SYSTEM parameter on the //*MAIN control statement, are considered for CI scheduling purposes when determining where the job is eligible to run. The job's scheduling environment does not apply.

- CLASS - indicates CI processing must be performed on a system on which the job's JOB CLASS is enabled.
- ANY - indicates CI processing may be performed on any processor regardless of job or class eligibility.

CIDEMAND=
Indicates whether demand select jobs of this class must have CI processing limited to certain processors. If specified for a class, this will override the value specified on the CIDEMAND parameter on the STANDARDS statement. If not specified, JES3 will use the value specified on or defaulted to on the STANDARDS statement.

- JOB - indicates CI processing must be performed on a system on which the job is eligible to run.
- CLASS - indicates CI processing must be performed on a system on which the job's JOB CLASS is enabled.
- ANY - indicates CI processing may be performed on any processor regardless of job or class eligibility.

DEF=
Identifies this class as the default job class. Specify DEF=YES on one CLASS statement only. If you specify DEF=YES on multiple statements, the last such statement in the initialization stream defines the default class. If you omit the CLASS parameter from a batch job's or started task's //*MAIN statement and you do not specify a job class on the //JOB statement, JES3 assigns the default job class to that job.

Note: A job class that is not defined to JES3 cannot be specified on the //*MAIN statement. If it is specified, JES3 cancels the job.

FAILURE=
Specifies the job recovery option that JES3 is to use when a system failure affects jobs in this class.

For information on what JES3 considers a "failure" from a job's point of view, and for detailed information on how JES3 treats a job in these failure situations, see the FAILURE= parameter on the STANDARDS statement.

Note: If a job has been registered as an element of automatic restart management, the FAILURE= keyword is ignored.

If automatic restart management decides to start the job, all non-spin sysout data sets created during the previous execution will be deleted.

CANCEL

Print any job output that is in a SYSOUT class that is specified as
TYPE=PRINT. After printing the output, cancel the job.
Empty data sets destined for the INTRDR are automatically canceled.

HOLD
Place the job into the hold queue.

PRINT
Print any job output that is in a SYSOUT class that is specified as
TYPE=PRINT. Then place the job into the hold queue.

RESTART
Restart the job from the first step. The job will be restarted on the
processor on which it was active.

GROUP=
Specifies the name of a job class group to which this job class is to be assigned.
This parameter must match the NAME parameter on a GROUP statement. If
the GROUP parameter is omitted, JES3 assigns this class to the default group
(JS3BATCH).

IORATE=
Specifies the default I/O rate for the jobs in this class. JES3 attempts to balance
the mixture of jobs in execution based on the values that you have specified
for the JOBMIX and CHOICE parameters on the appropriate SELECT
statements. This parameter can be overridden for individual jobs by the
IORATE parameter on the //*MAIN statement. For more information about
how the IORATE parameter relates to job selection, see the description of the
SELECT statement and in "Job Selection and Scheduling" in *z/OS JES3
Initialization and Tuning Guide*.

If you specify an invalid subparameter, JES3 uses the parameter default.

This parameter is ignored for job classes that are associated with
WLM-managed groups. See "GROUP (Job-Class Group Definition)" on page
111 for more information on defining a WLM-managed group.

JESMSG=
Specifies whether to allow (LOG) or suppress (NOLOG) writing WTOs and
WTORs to the JESMSGLG data set for jobs in this job class.

Note: If this JESMSG= is not used, the JESMSG= keyword on the
STANDARDS initialization statement is in effect. If JESMSG= is used, its use
overrides the specification of the JESMSG= keyword on the STANDARDS
initialization statement.

JOURNAL=
Specifies whether (YES) or not (NO) job-related information is to be saved in a
job journal.

YES
Indicates that jobs in this class are to have a journal data set.

NO Indicates that there is to be no journal data set. If a system failure occurs
affecting a job in this class, JES3 takes the action specified in the FAILURE
option on this statement.

This parameter may be overridden by individual jobs with the JOURNAL
parameter on the //*MAIN JES3 control statement.

If you specify a subparameter that is not valid for the JOURNAL parameter,
JES3 uses the default value NO.

Note: To restart a job automatically through checkpoint/restart or step restart, information about the job must be recorded in the job journal. To restart a job using automatic restart management, the job journal is not needed (automatic restart management does not use the job journal).

MDEPTH=
Determines the maximum number of jobs in this class that can be run on the indicated main at any one time. You may repeat the procname and depth subparameters in pairs as is necessary.

procname
Specifies the name of a processor. The main name must match the NAME parameter on a MAINPROC statement.

depth
Specifies a decimal number from 0 to 255. This parameter indicates the maximum number of jobs of this class that JES3 can schedule to run concurrently on the named main.

JES3 applies the limit to each service class separately where WLM is in use. More initiators than expected can be started where jobs and tasks in a given job class run under different service classes. To have limits applied correctly under WLM, all jobs, in the same job class, need to be in the same service class.

LSTRR

Specifies the logical storage reduction rate (0 to 99), if a job's logical region size is not specified in the LREGION parameter on the //*MAIN control statement. JES3 uses this parameter as a percentage of the region size to determine the job's logical region. If the LSTRR parameter is specified as 0, logical storage processing is effectively disabled for jobs not specifying LREGION.
If specified, the LREGION parameter overrides logical storage processing. If LSTOR=0 is specified on the SELECT statement logical storage scheduling is disabled.
For more information about defining logical storage, see "Defining Logical Storage for MVS Processors" in *z/OS JES3 Initialization and Tuning Guide*.
LSTRR is ignored for job classes that are associated with WLM managed groups. See "GROUP (Job-Class Group Definition)" on page 111 for more information on defining a WLM-managed group.

MLIMIT=
Determines the maximum number of jobs of other job classes that can run on the indicated main and still let JES3 schedule jobs in this class on that main. When any of the limits are exceeded, JES3 does not schedule any more jobs in the class defined by this CLASS statement on that main. JES3 only schedules jobs of this class when the number of jobs running from the other named classes is equal to or less than the assigned limit.

This parameter may be repeated to describe job class limitations on each main. The classname and limit parameters should be repeated, in pairs, to indicate the job limits of each class by main.

procname
Specifies the name of a processor as specified in the NAME parameter of a MAINPROC statement.

classname
Specifies the name of another job class. This must match the NAME parameter on another CLASS statement.

limit

>   Specifies a number from 0 to 255. This value indicates the number of jobs
>   of the class.

PRTY=

Specifies the JES3 job priority (0 to 14) be assigned to each job in this class. The
PRTY parameter may be overridden on a job basis by the PRTY parameter on
the JOB statement. If you omit this parameter, the value is taken from the
PRTY parameter on the STANDARDS statement.

SDEPTH=

Specifies the maximum number of jobs in this class requiring MDS operator
mounts that can be set up at one time. The value of nnn is a number from 0 to
255.

When JES3 counts the number of jobs that are set up, JES3 considers a job to
be set up from the time the job enters allocation until the time the job's devices
are deallocated.

Note: When deferred mounting is either specified in the JCL for any device
(for example, UNIT=(TAPE,,DEFER)) or implicitly requested by using tape
library dataserver devices, JES3 bypasses pre-execution mount processing and
does not include the job in its CLASS setup depth (SDEPTH) count unless
DEFERCT=YES has been specified on the SETPARAM initialization statement
or the *F S operator command.

SPART=

Specifies the spool partition that JES3 is to use for jobs in this job class. The
partition name must match the partition name specified on one of the SPART
statements. To accept the default spool partition, omit this parameter.

A partition name specified on a //*MAIN JES3 control statement or on a
SYSOUT initialization statement can override this parameter. For a discussion
of the order of overrides, see "Determining the Order of Spool Partition
Overrides" and "How the User Can Request a Spool Partition" in *z/OS JES3
Initialization and Tuning Guide*.

If you specify a partition name that has not been defined on an SPART
statement, JES3 uses the default partition.

If you specify an invalid subparameter, JES3 uses the parameter default.

SPIN=

Specifies whether the installation wants to allow or suppress spin off of JESlog
data sets during job execution.

YES

>   Specifies that a job running in this class, unless otherwise specified on the
>   JOB statement or the START command, will have its JESlog data sets spun
>   off through the use of a JES3 command.

+hh:mm

>   Specifies that a job running in this class, unless otherwise specified on the
>   JOB statement or the START command, will have its JESlog data sets spun
>   off automatically each time the *hh:mm* time interval has elapsed.

>   **Note:** The JESlog can be spun off at any time by using a JES3 command.
>   This *hh:mm* value must be between 00:10 and 99:59. Hours and minutes
>   must be two digits.

hh:mm
>   Specifies that a job running in this class, unless otherwise specified on the
>   JOB statement or the START command, will have its JESlog data sets spun
>   off automatically at the time of day specified by *hh.mm*.
>
>   **Note:** The log can be spun off at any time by using a JES3 command. The
>   *hh:mm* value must be between 00:00 (midnight) and 23:59. Hours and
>   minutes must be two digits.

nnn/nnnK/nnnM
>   Specifies that a job running in this class, unless otherwise specified on the
>   JOB statement or the START command, will have its JESlog data sets spun
>   off automatically each time the number of lines specified as *nnn* or *nnnK* or
>   *nnnM* has been generated. If the interval is specified as *nnnK*, JESlog is
>   spun off every *nnn* thousand lines; if the interval is specified as *nnnM*, the
>   log is spun off every *nnn* million lines.
>
>   **Note:** The JESlog data sets can be spun off at any time using a JES3
>   command. This value must be at least *nnn* lines. *nnn* must have a value of
>   500 to 999 when *K* and *M* are not used. *nnn* must have a value of 1 to 999
>   when *K* or *M* is used.

NO Specifies that the JESlog data sets for a job running in this class, unless
>   otherwise specified on the JOB statement or the START command, cannot
>   be spun off. This is the default.
>
>   If the same CLASS initialization statement is defined with
>   JESMSG=NOLOG and SPIN= is specified with a value other than NO, then
>   JES3 issues a warning message and assumes SPIN=NO. Also, consider the
>   following scenario:
>   - The CLASS initialization statement specifies SPIN=YES (or some similar
>   form is specified).
>   - JESMSG= is omitted on the CLASS initialization statement.
>   - JESMSG=NOSTC is specified on the STANDARDS initialization
>   statement.
>   - The job in execution is a started task.
>
>   Writing to the JESMSGLG data set is suppressed. However, when the
>   SPIN= interval for the JESYSMSG data set is reached or if an operator
>   command is issued to spin the JESlog data sets, the JESlog data sets are
>   spun off.

> **Note:**
> 1. The automatic spinning off of the JESlog data sets does not occur until the
>   current message buffer is filled; additional time can pass and additional
>   lines can be generated before the JESlog data sets are spun off. For this
>   reason, consider approximations for the values you specify for parameter
>   SPIN=.
> 2. When spin off of the JESlog data sets is in effect, the spin off of the first
>   JESMSGLG data set will not contain all messages written to it before the
>   start of job execution. These "missing" messages will be processed when the
>   job completes execution.

SYSSYM=
>   Indicates whether batch jobs of this class are allowed to use system symbols in
>   JCL.

ALLOW

Batch JCL is allowed to use system symbols. System symbols in batch JCL are replaced with values from a system where the job is eligible to execute. This system is derived from the set of systems defined for this class, the system affinity of the job, and the scheduling environment of the job at the time of conversion. It is possible for symbols and their values to come from a system that is not the system where the batch job actually executes, which can occur when there are several systems on which the job is eligible to execute.

When a job executing in a class defined with SYSSYM=ALLOW undergoes converter processing, the job requires C/I to be available at a JES3 HJS7790 level (or later) to provide system symbol substitution. If C/I is not available at this level, the job waits for C/I to become available at this level.

DISALLOW

Batch JCL is not allowed to use system symbols. System symbols will not be replaced with values when the JCL is processed. This is the default.

SYSTEM=

Defines the main name(s) or type of system to be used for jobs in this class.

LOCAL

Indicates that jobs in this class are to run on a JES3 local main only.

JES3

Indicates that jobs in this class are to be run on the global or any local main that can satisfy the job requirement.

GLOBAL

Indicates that jobs in this class are to run on the JES3 global only.

ANY

Indicates that jobs in this class can run on any main (global or local) that will satisfy the job requirement.

procname

Indicates, when specified without a preceding slash (/), the only main(s) to be eligible for running jobs in this class. If the "/" precedes the procname(s), this parameter indicates the mains to be excluded from consideration for jobs in this class. The procname must match the NAME parameter on a MAINPROC statement.

Note: LOCATE processing takes place on any main where both the appropriate catalogs are available and the job is eligible to run by virtue of the SYSTEM parameter on the CLASS statement.

TDEPTH=

Specifies the maximum number of jobs of this class that can be scheduled into the total JES3 complex at one time. The value of nnn is a number from 0 to 255.

TLIMIT=

Specifies the maximum number of jobs of other classes that can be scheduled into the total JES3 complex and still allow jobs in this job class to be scheduled. If any of the limits are exceeded, more jobs in this class will not be scheduled. Jobs of this class are scheduled only when the number of jobs running from other classes is equal to or less than the assigned limit.

classname
Specifies the name of another job class.

limit
Specifies the number of jobs of the other class. The maximum value is 255.

The classname and limit parameters may be repeated, in pairs, to indicate the job limit for each class.

TRKGRPS=
Specifies the number of track groups (as defined by the GRPSZ parameter on the BUFFER or SPART statement) JES3 is to allocate to jobs within this class. For guidelines on how to determine the appropriate value for the TRKGRPS parameter for your installation, see "Determining Track Group Allocation Sizes" in *z/OS JES3 Initialization and Tuning Guide*.

prigrps
Specifies the number of track groups to be initially allocated to jobs in this class. The specified value may be 1 through 9.

secgrps
Specifies the number of track groups to be allocated to jobs in this class subsequent to their primary allocation. JES3 allocates the specified amount of spool space after the job uses up its initial allocation, and again (for an unlimited number of times) when the job uses up each secondary allocation and requests more spool space. The specified value may be 1 through 9.

If you specify an invalid subparameter, JES3 uses the parameter default.

Example

In the following example, the job class ABC is defined. This class is associated with job-class group TESTGP. Jobs in this class are to run on processors SYS1 and SYS2. A job in class ABC would only be scheduled on system SYS1 when there are no jobs in classes NOP and QRS running on SYS1. A job in class ABC would only be schedule on system SY2 when there is one job or no jobs running in classes NOP and QRS on SYS2.

```
CLASS,NAME=ABC,GROUP=TESTGP,SYSTEM=(SYS1,SYS2),
MLIMIT=(SYS1,NOP,0,QRS,0),
MLIMIT=(SYS2,NOP,1,QRS,1)
```

COMMDEFN (Communication SSI Definition Records)

Use the COMMDEFN statement to specify the optional user communication subsystem interface (VTAM®) parameters.

Statement Summary
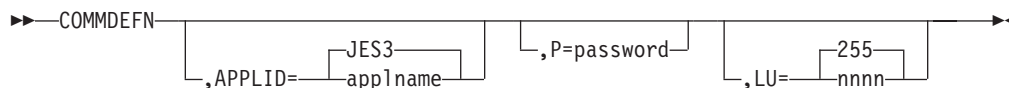
Table 12. COMMDEFN Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	COMMDEFN,APPLID=JES3,LU=255
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.

Table 12. COMMDEFN Summary (continued)

Variable	Value
Coding Considerations	Ensure that the value you specify on the P parameter is the same as the password specified on the PRTCT parameter of the VTAM APPL application definition statement.
Security Usage	VTAM uses the values specified on the password parameter (P) to verify that the application has authority to run.
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►──COMMDEFN──────────────────────────────────────────────────────────────►◄
             │              ┌─JES3─────┐   │  ┌─,P=password─┐  │  ┌─255──┐  │
             └─,APPLID=─────┴─applname─┘   └──────────────────┘  └─,LU=──┴─nnnn─┘
```

Parameters

APPLID=
> Indicates the application name as specified to VTAM in a VTAM generation application definition statement (APPL). This parameter is used in establishing the application program interface (API) at OPEN ACB time.

P= Specifies the 1- to 8-character password which is used by JES3 when issuing an OPEN ACB macro. This parameter must be the same as the password specified in the PRTCT parameter of the VTAM APPL application definition statement. If you omit this statement, JES3 assigns a null character string which indicates no password.

LU=
> Specifies the limit for the number of active sessions between SNA RJP and VTAM allowed at any one time. This number must not exceed 4095.
>
> If you specify an integer greater than the maximum allowable, JES3 uses the parameter default. If you specify a negative integer or a non-numeric character, JES3 issues an informational message and terminates initialization.
>
> If you specify an invalid subparameter, JES3 uses the parameter default.

COMMENT (*)

Use the comment statement to include comments in a JES3 initialization stream.

Statement Summary

Table 13. Comment (*) Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None

Table 13. Comment (*) Summary (continued)

Variable	Value
Placement in Initialization Stream	You can disperse comments freely anywhere within the initialization stream.
Coding Considerations	1. Comment statements begin in column one with an asterisk. 2. Comment statements cannot be continued; however, multiple comment statements can be included consecutively. 3. Comments can also be embedded within initialization statements in the initialization stream. If a comment is embedded within an initialization statement (whether the statement is complete on one line or continued), at least one blank must precede the beginning of the comment. No asterisk is required for embedded comments.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, and hot start with refresh.

Syntax

►►──*comment───►◄

Parameters

comment
 Indicates, in columns 2 through 71 (after the asterisk), the comment you want to include with the initialization statement. The text may be any length up to 70 characters; to continue comment text, a new comment statement must be specified.

Examples

Sample comment statement:

```
*THIS IS A COMMENT STATEMENT AND REQUIRES AN ASTERISK.
```

Sample comment that exceeds 70 characters and requires two comment statements:

```
*AS MANY COMMENT STATEMENTS AS ARE REQUIRED MAY BE PLACED IN
*THE JES3 INITIALIZATION STREAM.
```

Sample comment embedded within an initialization statement:

```
CLASS,NAME=ABC,DEF=YES     This is an embedded comment
```

Sample comments are included within a continued initialization statement:

```
CLASS,NAME=ABC,DEF=YES,     *Comment
    MDEPTH=(SY1,10)         *Comment
```

The following example contains embedded comments and comment statements:

(Comment Statement)

```
        CLASS,NAME=ABC,DEF=YES,    This is a comment
       *THIS IS A COMMENT STATEMENT
          MDEPTH=(SY1,         This is a comment
       *THIS IS A COMMENT STATEMENT
                     10)
```

COMPACT (Compaction Table Definition)

Use the COMPACT statement to define a compaction table to JES3. The compaction table is a set of characters which can be transmitted as a compacted character string.

Statement Summary

Table 14. COMPACT Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	The efficiency of the compaction algorithm depends on correct specification and selection of a compaction table. For example, numeric data files should be transmitted using a table which specifies numeric master characters. Uppercase and lowercase text should be transmitted with a table specifying the most commonly used lowercase letters as master characters. The following characters cannot be specified as a single character; their hexadecimal representation must be used: **Character** **Hex Form** **/** 61 **=** 7E **"** 7F **blank** 40 **(** 4D **)** 5D The SCS characters used as delimiters for data should be included in the compaction character set for better utilization of the compaction function. Including these characters avoids switching in and out of compaction mode on each line of output. The characters to be included are: • NL (new line) – X'15' • CR (carriage return) – X'0D' • FF (forms feed) – X'0C' • TRN (transparency) – X'35' • IRS (Inner Record Separator) – X'1E'
Security Usage	None
Performance Considerations	None

Table 14. COMPACT Summary (continued)

Variable	Value
Initialization Stream Overrides	None
Restart and Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax
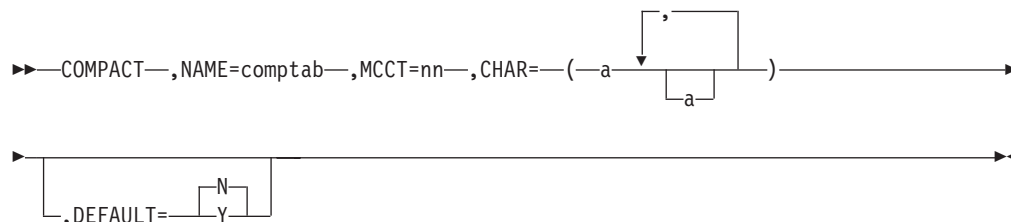
Parameters

NAME=
Specifies the 1- to 8-character (alphanumeric) name of the compaction table. NAME=NO cannot be specified.

MCCT=
Specifies the number of master compaction characters in the CHAR parameter. This number must be an integer from 3 to 15.

CHAR=
Specifies the master and nonmaster compaction characters.

A single 'a' is any EBCDIC character except a comma or a blank. An 'aa' pair is the hexadecimal representation of any 8-bit character. The master compaction characters are the first nn characters in this field. The number of master compaction characters is specified in the MCCT parameter. The master compaction characters are transmitted in a compacted character string using a 4-bit representation. The remaining characters are nonmaster compaction characters which are transmitted in a compacted character string using a 8-bit representation.

The number of master characters specified determines the number of nonmaster characters. The following table lists the number of each allowed.

Master	Nonmaster
3	244
4	236
5	226
6	214
7	200
8	184
9	166
10	146
11	124

COMPACT

COMPACT

Master	Nonmaster
12	100
13	74
14	46
15	16

If the list is too long, or if any character is repeated, the COMPACT statement is ignored and an error message is issued.

Note: The compaction algorithm uses each byte of the encoded stream to represent either (1) a single character or (2) two compacted characters. The coded stream always consists of an exact number of bytes. Master characters that stand alone are not compacted to 4 bits, but are coded as a full byte. SCS characters should be defined in this table also.

DEFAULT=
Specifies whether this is the default compaction table.

Y　Specifies that this is the default compaction table. This parameter is overridden by the COMPACT parameter on the RJPWS statement, the SYSOUT statement, or //*FORMAT control statement.

If you specify an invalid subparameter, JES3 uses the parameter default.

Example

The following example defines a compaction table named MCCT3, having three master compaction characters.

```
COMPACT,NAME=MCCT3,MCCT=3,CHAR=(A,B,C,
01,02,03,04,05,06,07,08,09,0A,0B,0C,0D,0E,0F)
```

CONSOLE for RJP Operator Consoles

Use this CONSOLE statement to define the characteristics of a console for an RJP workstation. This statement assigns message destinations to these type of consoles.

Statement Summary

Table 15. CONSOLE (RJP) Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	• Only one console can be specified on each CONSOLE statement. • If you used the *SWITCH command to switch a console to another another console, the console will be switched back to itself if a cold start, warm start or hot start with refresh is performed. The console will also be switched back to itself if a hot start with IPL was performed.
Security Usage	Use the LEVEL parameter to specify the set of commands that operators can enter at each console.
Performance Considerations	None

Table 15. CONSOLE (RJP) Summary (continued)

Variable	Value
Initialization Stream Overrides	None
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters. • Use the *MODIFY,CONFIG command to dynamically add SNA RJP consoles. • Use the *MODIFY,0 command to make changes to consoles.

Syntax

```
►►──CONSOLE──,JNAME=name──,TYPE=RJP──,DEST=──┬──msgdest──────────────────────►
                                             │         ┌──,──────┐           │
                                             └──(──▼──msgdest──┴──)──┘

►──┬──────────────┬──┬───────────┬──┬──────────────┬──────────────────────►◄
   │      ┌─120─┐  │  │    ┌─0─┐  │  │      ┌─YES─┐  │
   └──,LL=┴─nnn─┘  └─,LEVEL=┴─nn─┘  └─,SAVEMSG=┴─NO──┘
```
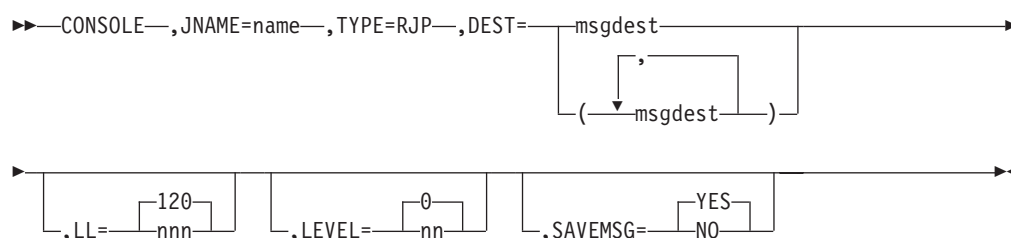
Parameters

Note: The CONSOLE statement is required when supplying an RJPWS statement.

JNAME=
Specifies the name of a BSC RJP terminal or SNA RJP workstation. If the name specified is the name of a BSC RJP terminal, it must match the name specified in the N parameter on a RJPTERM statement. If the name specified is a SNA RJP workstation, it must match the name specified in the N parameter on a RJPWS statement. The first character of the name cannot be a slash (/).

TYPE=
Specifies that the console being defined is an RJP console.

DEST=
Specifies one or a series of message destinations which represent classes of messages you want sent to the specified RJP console. msgdest can be any set of MCS routing codes or JES3 destination classes. Single routing codes and JES3 destination classes are specified as a single value with commas separating the individual values. Ranges of MCS routing codes can be specified by including a dash between the start of the range and the end of the range. The JES3 destination class and MCS routing codes will be combined into a single set of message destinations used to determine what messages will be displayed on the console.

In addition to messages that are sent as a result of DEST= parameters, the RJP console will also receive messages that are directly related to the operation of the remote work station. This includes messages that pertain to jobs jobmitted from the remote work station (for example, job started and job ended messages), messages that pertain to devices defined to the remote work station, and messages issued in response to commands entered from the RJP console. These additional messages are set even if DEST=NONE is specified for the console.

CONSOLE (RJP)

Table 16. Valid Destination Classes and Their Corresponding Routing Codes

JES3 Destination Class	Equivalent MVS Routing Code/Function	Destination Class Purpose
All	Broadcast	Messages of general interest. These messages are received by MCS consoles receiving broadcast messages and JES3 RJP consoles which include DEST=ALL in their definitions.
ERR	10	Equipment failure and JES3 failsoft and problem messages.
JES	42	General information about JES3.
LOG	41	General information about jobs.
MLG	Hardcopy	All input and output messages.
SEC	9	All security messages.
TAP	3	Messages about JES3-controlled tape requirements.
TP	8	Messages about teleprocessing.
UR	7	Messages about JES3-controlled unit-record equipment.
DALL or D1-D22	43-64	Messages about a user-defined console configuration. The exact JES3 destination class-routing code mappings are: D1=43 D4=46 D7=49 D10=52 D13=55 D16=58 D19=61 D22=64 D2=44 D5=47 D8=50 D11=53 D14=56 D17=59 D20=62 D3=45 D6=48 D9=51 D12=54 D15=57 D18=60 D21=63
MALL or M1-M32	65-96	Messages unique to a JES3 main. Use the MDEST parameter of the MAINPROC statement to define the destination class for messages about specific mains. The exact JES3 destination class-routing code mappings are: M1=65 M5=69 M9= 73 M13=77 M17=81 M21=85 M25=89 M29=93 M2=66 M6=70 M10=74 M14=78 M18=82 M22=86 M26=90 M30=94 M3=67 M7=71 M11=75 M15=79 M19=83 M23=87 M27=91 M31=95 M4=68 M8=72 M12=76 M16=80 M20=84 M24=88 M28=92 M32=96
SALL or S1-S32	97-128	Messages pertaining to JES3 device setup. Use the XUNIT or JUNIT keywords of the DEVICE statement to define the consoles to receive device related messages. The exact JES3 destination class-routing code mappings are: S1=97 S5=101 S9= 105 S13=109 S17=113 S21=117 S25=121 S29=125 S2=98 S6=102 S10=106 S14=110 S18=114 S22=118 S26=122 S30=126 S3=99 S7=103 S11=107 S15=111 S19=115 S23=119 S27=123 S31=127 S4=100 S8=104 S12=108 S15=112 S20=116 S24=120 S28=124 S32=128

LL=
> Specifies the longest line length you want displayed on this RJP console. If the actual line exceeds this length, the console breaks the line at a comma or a blank and continues on the next line.
>
> The default for this parameter is **120**.

LEVEL=
> Specifies the JES3 command authority level for RJP consoles. The authority level determines which commands you can enter at this console. For an explanation of authority levels, see "Authorizing Console Commands" in *z/OS JES3 Initialization and Tuning Guide* You can also use RACF® to provide command authorization. See *z/OS JES3 Initialization and Tuning Guide* for information about using RACF to provide command authorization.
>
> To change authority levels, replace the JES3-supplied exit routine, IATUX18, with your own exit routine.
>
> The default for this parameter is **0**.

If you specify an invalid subparameter, JES3 uses the parameter default.

SAVEMSG=
Specifies whether the console is to receive messages while the console is logged off. If so, messages that would have been received by the console while logged on, will be written to spool and will be displayed when the workstation logs on.

YES
indicates that the console is to receive messages while logged off.

NO indicates that the console is not to receive messages while logged off.

The default for this parameter is **YES**.

Examples

The following example defines two consoles:

1. WS000 receives destination class S12 and routing codes 22, 23, 24, 25, 26, and 28. It takes defaults for all other parameters.
2. S360A receives no destination classes or routing codes. It has a authority level of 15 and a line length of 80.

```
CONSOLE,TYPE=RJP,JNAME=WS000,DEST=(S12,22-26,28)
CONSOLE,JNAME=S360A,TYPE=RJP,DEST=NONE,
LL=80,LEVEL=15
```

CONSTD (Console Service Standards)

Use the CONSTD statement to define standards for your console configuration. These standards include JES3 command prefix characters and hardcopy log configuration. JES3 no longer supports the special console EDIT= characters. However, JES3 supports the MVS command delimiter specified by the CMDDELIM keyword on the INIT statement in SYS1.PARMLIB(CONSOLxx) in one of the following conditions:

- When the MVS command delimiter is used in disk reader commands.
- When the MVS command delimiter is used in commands entered using the JES3 INTERCOM macro.

Statement Summary

Table 17. CONSTD Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	CONSTD,SYN=8, CIFSS=FSSDEF,PLEXSYN=*,GLOBMPF=NO, DLOG=ON
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	None
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None

Table 17. CONSTD Summary (continued)

Variable	Value
Restart or Command Modification	Cold start or warm start for all parameters. Use the *MODIFY,0 command to change the DLOG option.

Syntax

```
►►──CONSTD─────────────────────────────────────────────────────────────────────►
              │               ┌─NO──┐ │   ┌─,SYN=─(8)──────────────┐
              └─,GLOBMPF=──────┤     │─┘   │                        │
                               └─YES─┘     │              ┌──,◄─┐   │
                                           └─,SYN=─(──────▼─synonym──)─┘

►──────────────────────────────────────────────────────────────────────────────►
     │         ┌─FSSDEF───┐ │   │        ┌─ON──┐ │
     └─,CIFSS=─┤          │─┘   └─,DLOG=─┤     │─┘
               └─MSGROUTE─┘              └─OFF─┘

►──────────────────────────────────────────────────────────────────────────────►◄
     │            ┌─,PLEXSYN=─(*)────────────────┐ │
     └────────────┤                              │─┘
                  │                  ┌──,◄──┐     │
                  └─,PLEXSYN=─(──────▼─synonym──)─┘
```
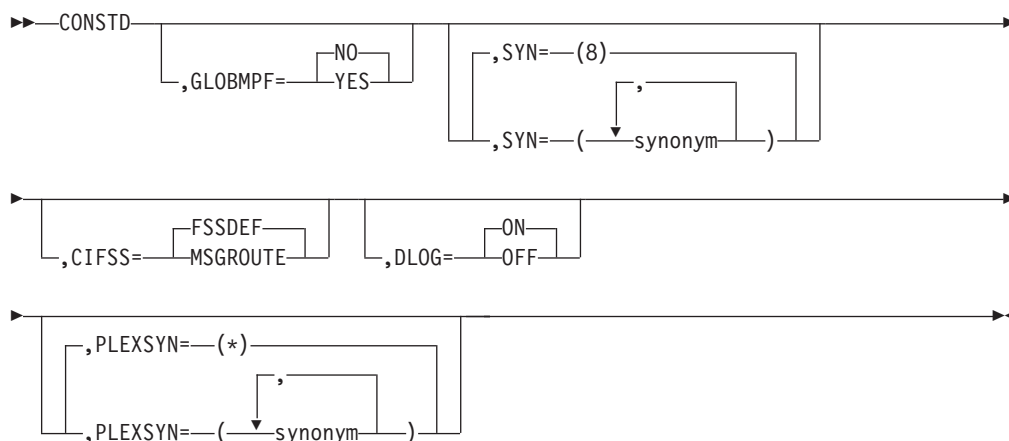
Parameters

GLOBMPF=

Specifies whether messages that are routed to the global processor should be presented to the Message Processing Facility (MPF) on the global processor.

YES
Specifies that messages routed to the global processor should be presented to MPF on the global.

NO Specifies that messages routed to the global should not be presented to MPF on the global. If **NO** is specified, then MPF processing must be performed on the system that a message originates from.

Messages that originate from the global processor are eligible for MPF on the global regardless of the GLOBMPF value.
The GLOBMPF option does not influence the routing of messages to the global processor. Installations wishing to use the GLOBMPF option must ensure that routing mechanisms are in place to direct the proper set of messages to the global. This could include the activation of DLOG which will result in the hardcopy message set being presented to the global, the definition of a physical console or extended MCS console on the global which receives the proper set of routing codes (or all routing codes), or the marking of target messages with the 'AUTO' attribute together with an extended console on the global receiving 'AUTO' messages.
When using the GLOBMPF function, remember that MPF processing may have to be adjusted as part of a DSI. Ensure that the MPF options on the old and new global are set up correctly. The SET MPF operator command can be used to change the MPF options for a particular system.

SYN=

Specifies a set of prefixes (or synonyms) to be used as SYSTEM scoped command prefixes. A command entered with a SYSTEM scoped prefix will execute on the system on which the command is entered.

Up to six SYSTEM scoped prefixes may be defined. Each prefix must be one to eight characters in length and must contain characters in the range of X'41' to X'FE'. Prefixes cannot be supersets or subsets of existing SYSTEM or SYSPLEX scoped prefixes. A list of prefixes already in use can be displayed by issuing the DISPLAY OPDATA command.

Prefixes that consist of all numerics are NOT allowed, they will be rejected during initialization. Do not use a prefix that is a command, an abbreviation of a command, or a command invocation. Any character specified or assumed for this parameter must not be specified for the EDIT parameter.

If you define a prefix using this parameter, all prefixes ,including the default character (8), must be specified. You must explicitly define the default character (8) if you want to continue to use it as a SYSTEM scoped command prefix.

If a prefix is specified on both the SYN= and PLEXSYN= parameter, the prefix will be defined as a SYSTEM scoped (SYN=) prefix only.

The prefix (8) is not included in the response to the DISPLAY OPDATA command because it is not registered thru CPF.

PLEXSYN=

Specifies a set of prefixes (or synonyms) to be used as SYSPLEX scoped command prefixes. A command entered with a SYSPLEX scoped prefix, from any system in the SYSPLEX, will execute on the global processor.

Up to six SYSPLEX scoped prefixes may be defined. Each prefix must be one to eight characters in length and must contain characters in the range of X'41' to X'FE'. Prefixes cannot be supersets or subsets of existing SYSTEM or SYSPLEX scoped prefixes. A list of prefixes already in use can be displayed by issuing the DISPLAY OPDATA command.

Prefixes that consist of all numerics are NOT allowed, they will be rejected during initialization. Do not use a prefix that is a command, an abbreviation of a command, or a command invocation. Any character specified or assumed for this parameter must not be specified for the EDIT parameter.

If the default prefix character (*) is not explicitly specified using this parameter, it will be automatically added by JES3. When other prefixes are specified, inclusion of the (*) is recommended for clarity.

If a prefix is specified on both the SYN= and PLEXSYN= parameter, the prefix will be defined as a SYSTEM scoped (SYN=) prefix only.

If JES3 is unable to define (*) as a SYSPLEX prefix, the (*) will be used by JES3 as a SYSTEM scoped prefix.

If you specify an invalid subparameter, JES3 uses the parameter default (*).

CIFSS=

Specifies how the installation wants messages issued within a CI/FSS address space to be routed. They can be routed to a single JES3 destination class or individually for each message.

FSSDEF

Specifies that CI/FSS messages are to be routed to the JES3 destination

class specified on the MSGDEST parameter of the FSSDEF initialization statement that defines the CI/FSS to JES3. FSSDEF is the default.

MSGROUTE

Specifies that CI/FSS messages are to be routed according to JES3 message processing for each individual message (such as the MSGROUTE statement), rather than the FSSDEF statement.

DLOG=

Specifies whether JES3 or MVS is to maintain the hardcopy log for the sysplex. When JES3 maintains the hardcopy log, it is DLOG. When MVS maintains the hardcopy log, it is SYSLOG or OPERLOG.

ON Specifies that you want JES3 to write a system log for the sysplex to a spool data set for subsequent processing by output service. The log is written in JES3 format from the global processor.

Note: JES3 systems using DLOG require a value higher than the default for the LOGLIM parameter in the CONSOLxx parmlib member to prevent write-to-log (WTL) buffer shortages and SYSLOG constraints. IBM recommends setting the LOGLIM value equal to or greater than:

```
LOGLIM = 4,000 + (2,000 x n )
```

n is the number of JES3 local processors at your installation.

If necessary, see *z/OS MVS Initialization and Tuning Reference* for more information about the LOGLIM parameter in CONSOLxx.

OFF

Specifies that JES3 is not to maintain the system log for the sysplex. In this case, the hardcopy log will be written to OPERLOG or SYSLOG as specified in the CONSOLxx HARDCOPY statement for each system.

DEADLINE (Deadline Type Definition)

Use the DEADLINE statement to define a deadline type for job scheduling; each type determines how JES3 increases the priority of a job so the job is scheduled within a specified time limit.

Statement Summary

Table 18. DEADLINE Summary

Variable	Value
Required/Optional Statement	Required
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	You can specify up to 36 DEADLINE statements in an initialization stream.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None. However, the JES3 *CANCEL,DEADLINE,PURGE command stops deadline scheduling being applied to jobs in the system.

Table 18. DEADLINE Summary (continued)

Variable	Value
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. Use the *MODIFY,L command to modify the deadline parameters.

Syntax

```
►►──DEADLINE──,type=──(──prtyset,timeset─────────────)───────────────►◄
                                      └─,prtychng,timincr─┘
```

Parameters

type
>   Specifies a single-character identifier from A to Z or 0 to 9. To apply this deadline definition to a job, the type must be indicated in the DEADLINE parameter on the job's //*MAIN control statement.

prtyset
>   Indicates the initial change in priority. This parameter is a priority level (1-14) to be set, or an incremental value to be added to a job's priority. An incremental value must be preceded by a plus sign (+). If the prtyset value is less than or equal to the job's priority, the job priority is not modified.

timeset
>   Specifies the time in minutes, hours, or TOD clock time, when a job priority is to be set to prtyset. This parameter represents the lead time for a job, that is, the amount of time required for a job to start and finish by the deadline associated in the DEADLINE parameter of the //*MAIN control statement.
>
>   To indicate time in minutes, specify the letter M immediately following the time; such as 1M for 1 minute. To indicate time in hours, specify the letter H immediately following the time; such as 1H for 1 hour. The range of acceptable values is from 0 to 1440 minutes *or* hours (depending on whether M or H is specified).
>
>   To indicate TOD clock time, specify the time in hours *and* minutes (for example, 1045 indicates 10 hours and 45 minutes). The range of acceptable values is from 0 to 1440.

prtychng
>   Specifies either a subsequent priority level change overriding prtyset or subsequent increments to be added to prtyset. If you indicate a new priority level, it will be the priority of a job until its completion. If you indicate a priority increment, it will be added periodically until a job either completes or reaches the highest priority level (14). An incremental value must be preceded by a plus sign (+). When prtychng is specified, timincr must also be specified.

timincr
>   Specifies the amount of time in minutes, hours, or TOD clock time before the prtyset priority is to be updated by prtychng. To indicate time in minutes, specify the letter M following the time; such as 1M for 1 minute. To indicate the time in hours, specify the letter H following the time; such as 1H for 1 hour.

DEADLINE

To indicate TOD clock time, specify the time in hours and minutes (for example, 1045 indicates 10 hours and 45 minutes).

Example

The following example shows how a deadline type is applied to a job. Also shown are the //*MAIN and DEADLINE statements which specify the job deadline and deadline type. The //*MAIN statement indicates that the deadline is 8 a.m. March 21, 1975 and the deadline type is A. The DEADLINE statement defines type A, which causes a job priority to be set to 10 one hour before the job's deadline and causes the priority to be incremented by 1 every 30 minutes until the job is complete.

```
DEADLINE,A=(10,1H,+1,30M)
//*MAIN DEADLINE=(800,A,032175)
```

Event	Time	Priority
Job submitted	0400	PRTY=5
	0700	Set PRTY=10
	0730	Increment+1 to 11
Deadline	0800	Increment+1 to 12
	0830	Increment+1 to 13
Job complete	0840	

DESTDEF (Define Destinations for Inbound SYSOUT)

Use the DESTDEF initilaizaiton statement to specify how inbound SYSOUT data sets from other NJE nodes are to be processed at this node.

Statement Summary

Table 19. DESTDEF Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	The maximum length of a userid or device name is 8 characters. Wildcards are permitted in the names: • * - represents any zero or more characters. • ? - represents any one character.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	NETHOLD=YES on the NJERMT initialization statements overrides what you specify on the DESTDEF statement. If NETHOLD=YES is specified on the NJERMT statement for the home node, what you specify on the DESTDEF statements will have no effect.
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. Use the *MODIFY,CONFIG command to add destinations for your inbound SYSOUT.

Syntax

```
►►──DESTDEF──────────────────────────────────────────────────────────────────────►

        │                    ┌─────◄─────┐              │
        └─,─USERID=─(──user──┼───────────┼──)──┘
                             └──,user──┘

►────────────────────────────────────────────────────────────────────────────────►◄

        │                   ┌────◄────┐              │
        └─,──DEVICE=──(──dev──┼─────────┼──)──┘
                            └──,dev──┘
```
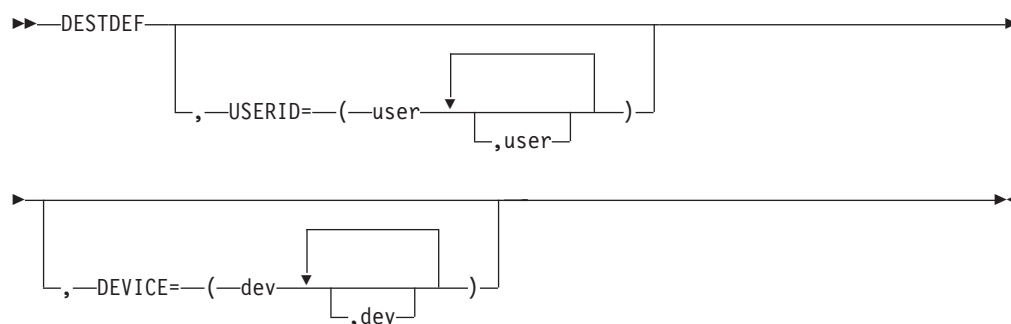
Parameters

DEVICE=

> Specifies that inbound NJE SYSOUT data destined for the named devices should be placed on the writer queue (made unavailable for TSO RECEIVE), even if the device name is otherwise not defined to JES3.

USERID=

> Specifies that inbound NJE SYSOUT data destined for the named users should be placed on the hold queue and made available for TSO RECEIVE by the named users, even if there is a JES3 device with the same name.

Example

The following example specifies that the inbound NETDATA destined for FRED or SUE should be made available for TSO RECEIVE even if these match the JNAME of a JES3 device. Inbound NETDATA destined for OEMPRTxx should be placed on the writer queue even if there is no JES3 device with a matching JNAME.

```
DESTDEF,USERID=(FRED,SUE),DEVICE=(OEMPRT*)
```

DEVICE (Define Processor Status)

Use this form of the DEVICE statement (there are two other forms of the DEVICE statement) to define the initial status of mains in a JES3 complex. If you omit this DEVICE, the processor in question is initialized online to every processor in the complex. For more information on defining mains, see "Defining Mains" in *z/OS JES3 Initialization and Tuning Guide*ortone.

Statement Summary

Table 20. DEVICE (Processor Status) Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	
Security Usage	None
Performance Considerations	None

DEVICE (processor status)

Table 20. DEVICE (Processor Status) Summary (continued)

Variable	Value
Initialization Stream Overrides	None
Restart or Command Modification	• Hot start with refresh for all parameters. • You can add a DTYPE=SYSMAIN DEVICE initialization statement during a hot start with refresh if the corresponding MAINPROC statement has already been defined. • You can delete a DTYPE=SYSMAIN DEVICE initialization statement during a hot start with refresh if the corresponding MAINPROC statement is not also deleted.

Syntax

```
►►──DEVICE──,DTYPE=SYSMAIN──,JNAME=main1──,JUNIT=──(──▼──main2,,──┬─ON──┬──)──►◄
                                                                  └─OFF─┘
```

Parameters

DTYPE=
Specifies that this statement defines the initial status for a main.

JNAME=
Specifies the name of a main whose initial status you are defining. The name you specify for main1 must match the main name as defined on a MAINPROC statement.

JUNIT=
Specifies the main (main2) with which main1 will communicate. Repeat this group of subparameters for each main in the JES3 complex.

,main2
main2 must be the name of the main that will communicate with main1. main2 can be specified as *ALL, in which case the online/offline status you specify applies to all mains in the complex.

,
Specifies the absence of the destclass subparameter. This subparameter, which you can code on other forms of the DEVICE statement, cannot be coded on this form of the statement.

{OFF|ON}
Specifies the initial status of the main. OFF specifies offline; ON specifies online.

Example

This example shows four mains, SY1, SY2, SY3, and SY4 interconnected through XCF.

A sample initialization stream follows the drawing. This stream contains MAINPROC statements that define each main and DEVICE statements that define the main's connections.
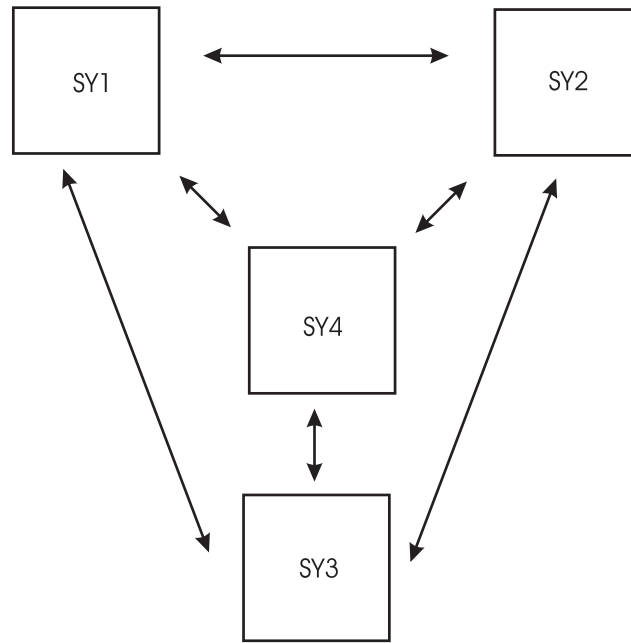
Figure 1. Sample Initialization Stream

```
                    .
                    .
                    .
MAINPROC,NAME=SY1,SYSTEM=JES3,...
MAINPROC,NAME=SY2,SYSTEM=JES3,...
MAINPROC,NAME=SY3,SYSTEM=JES3,...
MAINPROC,NAME=SY4,SYSTEM=JES3,...
                    .
                    .
                    .
DEVICE,DTYPE=SYSMAIN,JNAME=SY1,JUNIT=(,SY1,,ON,,SY2,,ON,,SY3,,OFF,SY4,ON)
```

In the previous DEVICE statement,SY1, SY2, and SY4 are initially online to SY1.
SY3 is initially offline to SY1.

```
DEVICE,DTYPE=SYSMAIN,JNAME=SY2,JUNIT=(,*ALL)
```

In the previous DEVICE statement, SY1, SY2, SY3, and SY4 are initially online to
SY2 (by default).

```
DEVICE,DTYPE=SYSMAIN,JNAME=SY3,JUNIT=(,SY1,,,,SY2,,OFF,,SY3,,,,SY4)
```

In the previous DEVICE statement, SY1, SY3, and SY4 are initially online to SY3.
SY2 is initially offline to SY3.

There is no DEVICE statement for SY4. This indicates that SY1, SY2, SY3, and SY4
are initially online to SY4 (as is the case in the SY2 example).

DEVICE (Define a Network BSC line or CTC Connection)

Use this form of the DEVICE statement to define a BSC line or a CTC connection
that connects your node to another node in a network. You must code a DEVICE
statement for each such line. or connection. For more information on defining a
line, or connection, see "Defining Communication Lines" in *z/OS JES3 Initialization
and Tuning Guide*.

Statement Summary

Table 21. DEVICE (Network BSC line)

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. Although you cannot code the DGROUP parameter, JES3 assigns all network lines or connections to the device group named NETWORK.
	2. The JUNIT parameter has a dependency on the NAME parameter of the MAINPROC statement. During a hot start with refresh, the MAINPROC statement is not processed; the MAINPROC from the last warm or cold start is used. Therefore, if you add a MAINPROC statement during a hot start with refresh, JES3 ignores it. JES3 issues error messages if the JUNIT parameter of the DEVICE statement references a MAINPROC statement that was added during a hot start with refresh.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►──DEVICE──,DTYPE=NJELINE──,JNAME=linename──,JUNIT=──────────────────────►

                        ┌──,,──┐
                        │      │      ┌──,ON──┐
  ►──(──┬──/devnum──┬───┴─,main─┴─,TP─┴───────┴──)──,NUMDEV=──nnnn──────────►◄
        └──devnum───┘                 └──,OFF─┘
```

Parameters

DTYPE=
Specifies that this statement defines a BSC line or a CTC connection for a network of nodes.

JNAME=
Specifies a name of a BSC line or CTC connection. The first character of the name cannot be a slash (/). The variable *linename* must match the name you specify on the LINE parameter of the JES3 NJERMT initialization statement that defines your node. The linename is a 1-8 character name; the first character of the name cannot be a slash (/).

JUNIT=

Specifies information about the line or CTC connection. You must code the following parameters for the global. You must repeat these parameters for each local main that has access to the line and could become the global.

/devnum|devnum

Specifies the device number (by 3-digit or 4-digit hexadecimal number). A slash (/) preceding the device number is not required. Device numbers can be specified by any of the following formats:

```
ddd
dddd
/ddd
/dddd
```

ddd and dddd represent the device numbers.

address

Specifies the address of the BSC line or CTC connection.

main

Specifies the name of a main that has access to the linewhen the main is global. The variable *main* must match the name of the main that you define on a MAINPROC statement.

Alternatively, a main name of *ALL can be used. Use of *ALL indicates that all mains in the complex have access to this line when the main is the global. When *ALL is used, no other group of *devnum,main,TP,ON|OFF* can be used on the JUNIT parameter of the DEVICE initialization statement, and the values specified for *devnum*, TP, and ON|OFF are the same for all mains.

TP Specifies the destination class that is to receive messages about this line. or connection.

{OFF|ON}

Specifies the initial online/offline status of the line or connection as viewed by the named main.

NUMDEV=

The value, *nnnn*, specifies the number of devices to be defined by this DEVICE statement, starting with the specified JUNIT. For example, if a DEVICE statement defines a JUNIT of 140 and NUMDEV=32, the statement defines 32 statements with device numbers of 140 through 15F. The NUMDEV parameter requires at least one JUNIT with a device number (that is, a device number other than NONE).

When NUMDEV is used, the JNAME parameter specifies a prefix rather than a complete JNAME. A four digit device number is built based on the JUNIT and NUMDEV and concatenated with the prefix to form a complete JNAME. For example, if the JUNIT is 140, the specified JNAME is LINE, and NUMDEV=32, the statement will define 32 JNAMEs, LINE0140 through LINE015F.

If the JUNIT combines mains with different device numbers (for example, `JUNIT=(140,SY1,,ON,8C0,SY2,,ON)`, the first specification is used to build the JNAMEs (140 is this case).

If the JUNIT combines mains with device numbers and NONE (for example, `JUNIT=(NONE,SY1,,ON,8C0,SY2,,ON)`, the first group with an actual device number is used to build the JNAMEs (8C0 in this case).

Example

The following example defines a BSC line named LINE1.

```
DEVICE,DTYPE=NJELINE,JNAME=LINE1,JUNIT=(207,SY1,TP)
```

The following example defines three BSC lines named LINEA123, LINEA124, and LINEA125 that can be accessed from all mains:

```
DEVICE,DTYPE=NJELINE,JNAME=LINE,JUNIT=(A123,*ALL,TP,ON),NUMDEV=3
```

DEVICE (Define I/O Devices)

Use this form of the DEVICE statement to define a device that JES3 can use:
- to satisfy its own functions (JES3 device).
- to satisfy the needs of a job (execution device).
- as a JES3 device or as an execution device (shared device).

Because JES3 varies assignable devices and all execution devices online or offline to MVS and to JES3 at initialization, satisfy all conditions necessary for the MVS VARY command to execute properly before initializing JES3.

If you want two or more mains to share a device, use the XUNIT parameter to define each main. These devices are called **shared devices**.

Deciding whether to specify a device as shared or not (using the XUNIT parameter) depends on how the device is attached to the system. Channel-attached devices, such as 3900 printers, that you want to operate under the control of an output writer functional subsystem (FSS), must be defined as shared. Those other devices (ex: 3827 printers), which you want to operate under control of an FSS yet are not channel-attached, must not be defined as shared.

Except for RJP devices, you must code one DEVICE statement for each I/O device that you want JES3 to use.

For more information on defining I/O devices, see "Defining I/O Devices to JES3" in *z/OS JES3 Initialization and Tuning Guide*.

Statement Summary

Table 22. DEVICE (Define I/O Device) Summary

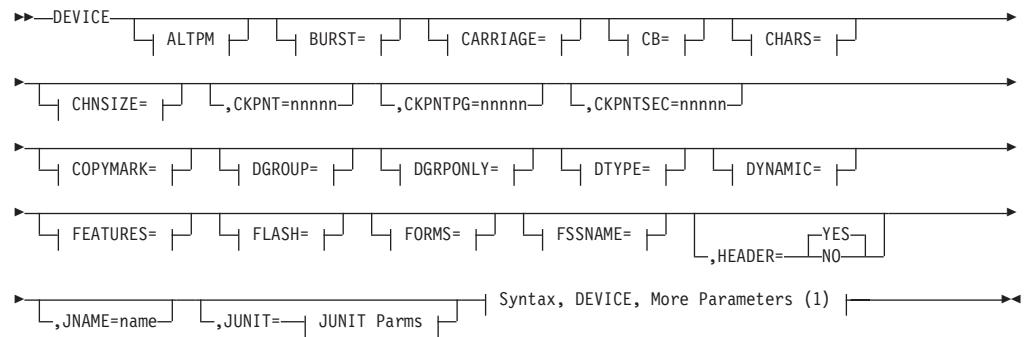| Variable	Value
Required/Optional Statement	Required
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.

Table 22. DEVICE (Define I/O Device) Summary (continued)

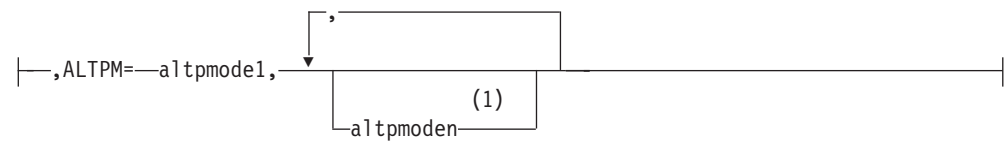| Variable	Value
Coding Considerations	• Dependent on initialization statements, FSSDEF, MAINPROC, RJPLINE, RJPTERM, SETNAME, RJPWS. • Do not code the CKPNTPG and CKPNTSEC parameters on the same DEVICE statement; they are mutually exclusive. • If you specify the SELECT parameter, JES3 ignores the HEADER parameter. • For a SNA-attached AFP printer, specifying JUNIT=(/devnum...) or JUNIT=(devnum...) is not valid. Instead, you must use a comma as a place holder when specifying the JUNIT parameter. The JUNIT parameter cannot precede the DTYPE parameter. • Before specifying LDENS=YES, consult the software component description for the receiving unit to determine whether the software supports the set line density command. If it does not and the command is sent, the results are unpredictable. • If the device is any AFP printer other than a 3800 model 3, JES3 assumes MODE=FSS. • If you use the RDFEAT parameter, place it following the DTYPE parameter. • If you omit the XLATE parameter when defining IBM 3211, IBM 4245, or IBM 4248 devices, JES3 automatically suppresses translation of unprintable characters since the translation is performed by the device itself (that is, JES3 uses a default value of XLATE=NO for these device types). • Devices within a specific XTYPE should have compatible characteristics. For the 3820 printer, XTYPE is not a valid parameter. • The XTYPE parameter must precede the XUNIT parameter if you specify both. Do not specify XUNIT for an IBM 3820 printer. • If the SELECT parameter is specified, the HEADER and BURST parameters on this statement are ignored and no header, or burst is used. When specifying the SELECT=BEn parameter for two devices, the SELECT parameter can be the same on the two DEVICE statements for those devices. However, the LEN parameters cannot be the same because unpredictable results can occur: For example, the following is the correct way to indicate this in the initialization stream: ``` DEVICE,DTYPE=RMTPRINT,JNAME=WS000PR1, SELECT=BE2,LEN=1 DEVICE,DTYPE=RMTPRINT,JNAME=WS000PR1, SELECT=BE2,LEN=2 ``` When SELECT=EXn is specified, you cannot define more exchange devices than there are physical disks available to support them. If you specify the EDS parameter for a device that is not a SNA RJP device or for a device that uses Peripheral Data Set Information Record (PDIR) support, JES3 ignores the parameter.
Coding Considerations	• The JUNIT parameter has a dependency on the NAME parameter of the MAINPROC statement. During a hot start with refresh, the MAINPROC statement is not processed; the MAINPROC from the last warm or cold start is used. Therefore, if you add a MAINPROC statement during a hot start with refresh, JES3 ignores it. JES3 issues error messages if the JUNIT or XUNIT parameter of the DEVICE statement references a MAINPROC statement that was added during a hot start with refresh.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None. However, for information on output service overrides, see *z/OS JES3 Initialization and Tuning Guide.*

DEVICE (I/O)

Table 23. DEVICE (Define I/O Device) Summary - cont.

Variable	Value

Restart or Command Modification	• Warm start, cold start, or hot start with refresh for all parameters. Omitting one statement might cause a subgeneric split or loss of a device. Omitting all statements for a device causes loss of the device as a JES3-managed device. Hot start with refresh applies for all parameters.
	
	 • When a hot start with refresh is to be performed, consider the following:
	
	   1. You cannot delete an FSS managed device if the FSS is active. It does not matter whether a writer was using the device or not. The exception is if the FSS is active on the global and the global was IPLed before performing the hot start with refresh.
	
	   2. You cannot add an FSS managed device to an existing FSS (through the FSSNAME parameter) if the FSS is active. The exception is if the FSS is active on the global and the global was IPLed before performing the hot start with refresh.
	
	   3. You cannot change the device number in the JUNIT parameter of an FSS managed device if the FSS is active and a writer is using the device. The exception is if the FSS is active on the global and the global was IPLed before performing the hot start with refresh.
	
	   4. You cannot delete a device number/system name from the JUNIT parameter of an FSS managed device if the FSS is active and a writer is using the device. The exception is if the FSS is active on the global and the global was IPLed before performing the hot start with refresh.
	
	   5. Omitting one statement might cause a subgeneric split or loss of a device. Omitting all statements for a device causes loss of the device as a JES3 managed device. (This is also true of warm and cold starts.)
	
	   6. If an FSS managed device is being used by a writer, the following parameters on the DEVICE statement will be ignored if they are changed. These parameters will be restored from checkpointed information when the writer is started:
	     – MODE
	     – Online/Offline status (from JUNIT)
	     – CKPNT/CKPNTPG/CKPNTSEC
	     – NPRO
	     – SETUPMSG
	     The exception is if the FSS is active on the global and the global was IPLed before performing the hot start with refresh.
	
	 • Use the `*MODIFY,CONFIG` command to dynamically add VTAM attached FSS printers. You cannot add a DEVICE statement for an FSS managed device if the FSS is active. The FSS must be shut down before adding the device.
	
	 • Use the `*MODIFY,T` or `*MODIFY,W` command to dynamically modify VTAM attached FSS printers.
	
	 • Use the `*MODIFY,F,D=` command to change the MODE parameter.
	
	 • Use the `*MODIFY,W` command to change the DGRPONLY, DYNAMIC, PDEFAULT, SETUPMSG, PDIR, and XLATE parameters.

Syntax

```
►►─DEVICE─────────┬──────┬───┬───────┬───┬──────────┬───┬─────┬───┬────────┬─────────────────►
                  └─ALTPM─┘   └─BURST=─┘   └─CARRIAGE=─┘   └─CB=─┘   └─CHARS=─┘

►─┬─────────┬──┬──────────────┬──┬────────────────┬──┬─────────────────┬──────────────────────►
  └─CHNSIZE=─┘  └,CKPNT=nnnnn──┘  └,CKPNTPG=nnnnn───┘  └,CKPNTSEC=nnnnn──┘

►─┬──────────┬──┬───────┬──┬──────────┬──┬───────┬──┬─────────┬───────────────────────────────►
  └─COPYMARK=─┘  └─DGROUP=┘  └─DGRPONLY=┘  └─DTYPE=┘  └─DYNAMIC=┘

►─┬──────────┬──┬───────┬──┬───────┬──┬─────────┬──┬─────────────────┬────────────────────────►
  └─FEATURES=─┘  └─FLASH=─┘  └─FORMS=─┘  └─FSSNAME=┘  │        ┌─YES─┐ │
                                                     └,HEADER=─┴─NO──┘─┘

►─┬───────────┬──┬────────┬────────────┬─ Syntax, DEVICE, More Parameters (1) ─┤────────────►◄
  └,JNAME=name─┘  └,JUNIT=─┤ JUNIT Parms ├┘
```

ALTPM

```
            ┌──────,──────────┐
├──,ALTPM=─altpmode1,─▼─────────────────┤
                      │        (1)       │
                      └─altpmoden─┘
```

BURST=

```
             ┌─YES─┐
├──,BURST=───┤     ├──────────────────────────┤
             └─NO──┘
                  └─,M─┘
```

CARRIAGE=

```
               ┌─YES─┐    ┌─STANDARD─┐
├──,CARRIAGE=──┤     ├──,─┤          ├──────────┤
               └─NO──┘    └─carrtape─┘
```

CB=

```
            ┌─N─┐
├──,CB=─────┤ J ├──────────────────────────┤
            └─D─┘
```

CHARS=

```
             ┌─YES─┐    ┌─STANDARD────────────┐
├──,CHARS=───┤     ├──,─┤       ┌────,────┐    ├──────┤
             └─NO──┘    └─id1─,─▼──────────┤   │
                                    (2)    │
                               └─idn─┘
```
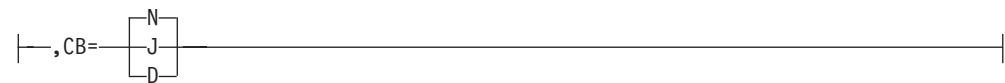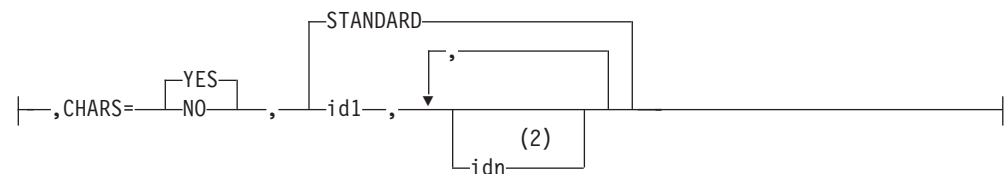
DEVICE (I/O)

CHNSIZE=

```
                  ┌─DS──────┐
├──,CHNSIZE=──────┼─nnn─────┼──────────────────────────────────────────┤
                  └─(nnn,mmm)─┘
```

COPYMARK=

```
                   ┌─C─┐
├──,COPYMARK=──────┼─N─┼──────────────────────────────────────────────┤
                   └─J─┘
```

DGROUP=

```
                 ┌─LOCAL───┐
├──,DGROUP=──────┼─grpname─┼──────────────────────────────────────────┤
                 └─────────┘
```

DGRPONLY=

```
                   ┌─NO──┐
├──,DGRPONLY=──────┼─YES─┼────────────────────────────────────────────┤
                   └─────┘
```

DTYPE=

```
                 ┌─PRTxxxxx─┐
├──,DTYPE=────────┼─PUNxxxx──┼────────────────────────────────────────┤
                 ├─RDRxxxx──┤
                 ├─RMTxxxx──┤
                 ├─TAxxxxx──┤
                 └─username─┘
```

DYNAMIC=

```
                                    ┌─,0─┐
├──,DYNAMIC=──(──┬─YES─────────┬─────────────)────────────────────────┤
                 │ └─YES,timeout─┘           │
                 │            ┌─,+─┐         │
                 └─NO─────────────────────────┘
```

FEATURES=

```
├──,FEATURES=──(──┬──────┬──┬─────┬──)────────────────────────────────┤
                  └─CGS2─┘  └─.SS─┘
```

FLASH=

```
              ┌─YES─┐     ┌─STANDARD─┐
├──,FLASH=────┼─NO──┼───,─┼─name─────┼────────────────────────────────┤
              └─────┘     └──────────┘
```

FORMS=

```
├──,FORMS=──┬─YES─┬──,──┬─STANDARD─┬────────────────────────────────┤
            └─NO──┘     └─forms────┘
```

FSSNAME=

```
├──,FSSNAME=fssname───────────────────────────────────────────────┤
```

JUNIT Parms:

```
├──(──┬─/devnum─┬──┬──────,main──,msgdest──,──┬─ON──┬───┬──)──────┤
      ├─devnum──┤  │                          └─OFF─┘   │
      └─NONE────┘  └─,*ALL──,msgdest──,──┬─ON──┬────────┘
                                         └─OFF─┘
```

Notes:

1   You can specify altpmode1 to altpmode8.

2   id2, id3, id4,...

Syntax, DEVICE, More Parameters (1)

```
►►──┬─ LDENS= ─┬──┬─────────────────────────────────────┬──────────►
    └──────────┘  └─,LINELIM=──┬─0─────────┬──┬─────┬──┘
                               └─nnnnnnnnn─┘  └─ + ─┘

►──┬─ MODE= ─┬──┬─ MODIFY= ─┬──┬─ NPRO= ─┬──┬─ NUMDEV= ─┬──┬─ OPACTLOG= ─┬──►
   └─────────┘  └───────────┘  └─────────┘  └───────────┘  └─────────────┘

►──┬─ PAGELIM= ─┬──┬─ PDEFAULT= ─┬──┬─ PDIR= ─┬── PM=pmode1 ──┬───────,──────┬──►
   └────────────┘  └─────────────┘  └─────────┘               │        (2)   │
                                                              └─,pmoden──────┘

►──┬─ RDFEAT= ─┬──┤ Syntax, DEVICE, More Parameters (2) ├──────────────►◄
   └───────────┘
```

LDENS=

```
├──,LDENS=──┬─NO──┬─────────────────────────────────────────────────┤
            └─YES─┘
```

DEVICE (I/O)

MODE=

```
|──,MODE=──┬─COMP─┬──────────────────────────────────────────|
           └─FSS──┘
```

MODIFY=

```
                    ┌─YES─┐
|──,MODIFY=──(──────┤     ├──,──┬─STANDARD───────────┬──)──────|
                    └─NO──┘     └─name──,──┬─0─┬──────┘
                                           ├─1─┤
                                           ├─2─┤
                                           └─3─┘
```

NPRO=

```
            ┌─STANDARD─┐
|──,NPRO=───┼─nnnn─────┼──────────────────────────────────────|
            └─NO───────┘
```

NUMDEV=

```
                     (1)
|──,NUMDEV=─────────────nnnnn──────────────────────────────────|
```

OPACTLOG=

```
               ┌─YES─┐
|──,OPACTLOG=──┴─NO──┴──────────────────────────────────────────|
```

PAGELIM=

```
              ┌─0+──────┐
|──,PAGELIM=──┼─nnnnnn──┼───────────────────────────────────────|
              ├─nnnnnn+─┤
              └─NO──────┘
```

PDEFAULT=

```
               ┌─NONE────────┐
|──,PDEFAULT=──┼─CHARS───────┼──────────────────────────────────|
               ├─FCB─────────┤
               ├─(CHARS,FCB)─┤
               └─(FCB,CHARS)─┘
```

PDIR=

```
           ┌─BDS─┐
|──,PDIR=──┴─ALL─┴───────────────────────────────────────────────|
```

RDFEAT=

```
           ┌─Y─┐
├──,RDFEAT=┴─N─┴─────────────────────────────────────────────┤
```

Notes:

1   You must specify at least one JUNIT or XUNIT with a device number when using NUMDEV.

2   pmode2, pmode3,...to a maximum of pmode8.
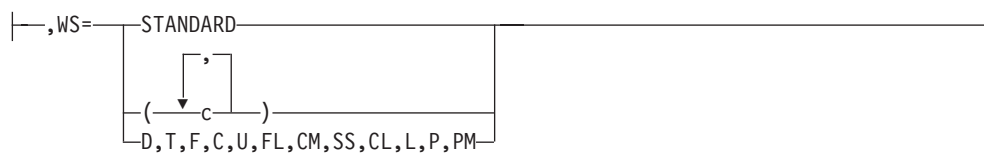
Syntax, DEVICE, More Parameters (2)

```
►►─┬────────────┬──┤ SELECT= ├──┤ SETUPMSG= ├──┬─────────┬──────►
   └─,RECORDS=nnn─┘                              └─,SVF=NO─┘

►─┬──────────────┬──┬────────────┬──┬,WC=─┬─STANDARD──────────┬─►
  └─┤ STACKER= ├──┘  └─┤ TRAIN= ├─┘       │      ┌─,◄─┐        │
                                          └─(─▼──c──)──┘

►─┬──────┬──┬─────────┬──┬─────────┬──┬─────────┬──────────────►◄
  └┤ WS= ┤┘  └┤XLATE= ┤┘  └┤XTYPE= ┤┘  └┤XUNIT= ┤┘
```

SELECT=

```
├──,SELECT=─┬─BEn─┬──────────┬──┬────────────────┬─────────────┤
           │     └─,LEN=nnn──┘  │       ┌─NO─┐   │
           │                    └─,EDS=─┴─YES─┴──┘
           └─EXn─┬──────────┬──┬────────────────┬─
                 └─,LEN=nnn──┘  │       ┌─NO─┐   │
                                └─,EDS=─┴─YES─┴──┘
```

SETUPMSG=

```
             ┌─YES─┐
├──,SETUPMSG=┴─NO──┴──────────────────────────────────────────┤
```

STACKER=

```
            ┌─YES─┐   ┌─STANDARD─┐
├──,STACKER=┴─NO──┴─,─┼──S───────┼────────────────────────────┤
                     └──C───────┘
```

TRAIN=

```
          ┌─YES─┐   ┌─STANDARD─┐
├──,TRAIN=┴─NO──┴─,─┴─train────┴──────────────────────────────┤
```

DEVICE (I/O)

WS=

```
├──,WS──┬──STANDARD──────────────────────────────────────┬──────────────────┤
        │              ┌──────,──────┐                    │
        └──(───────────▼──c──────────)──┘
            └─D,T,F,C,U,FL,CM,SS,CL,L,P,PM─┘
```

XLATE=

```
                        (1)  ┌─YES─┐
├──,XLATE=────────────────────┼─────┼──────────────────────────────────────┤
                              └─NO──┘
```

XTYPE=

```
├──,XTYPE──(──name──┬──────────────────────────┬──────────────────────────┤
                    ├─CA───────────────┤
                    ├─TA───────────────┤
                    ├─GR───────────────┤
                    ├─UR───────────────┤
                    └─DA───────────────┘
                              ┌─RM─┐
                        └──,──┴─PR─┘
```

XUNIT=

```
                                  ┌─────────────────────┐         ┌─ON──┐
├──,XUNIT──(──┬──/devnum──┬───────▼──,main──,msgdest──────┼─OFF─┼──)──────┤
              └──devnum───┘                               └─ON──┘
                          └──,*ALL──,msgdest──┬─OFF─┬──┘
```
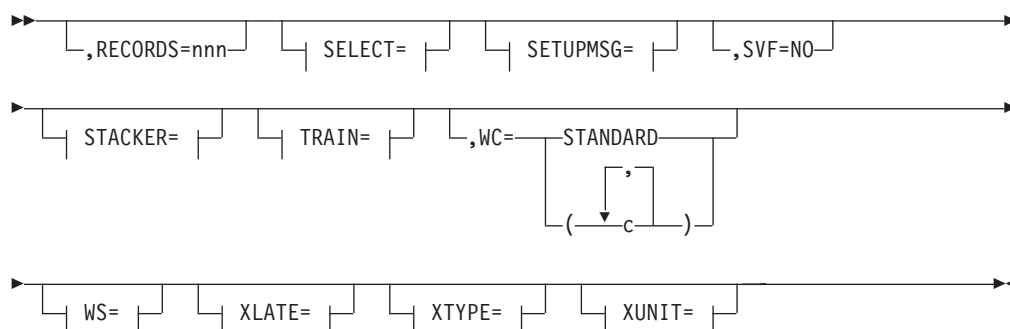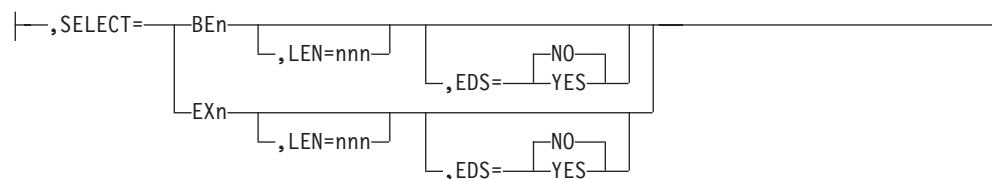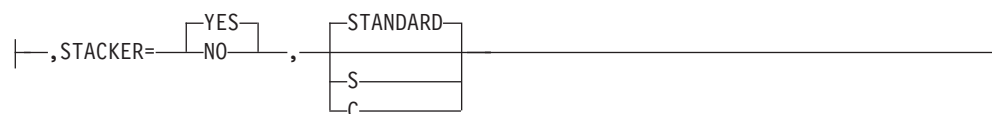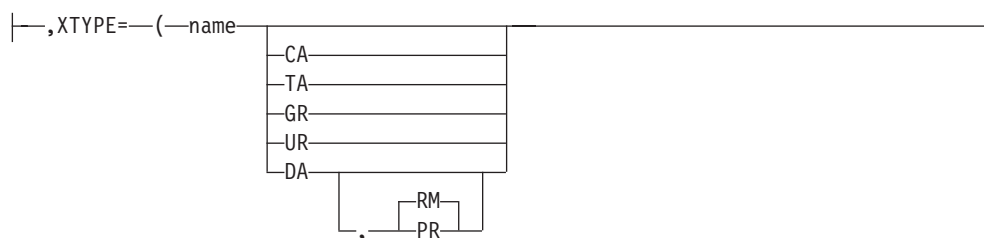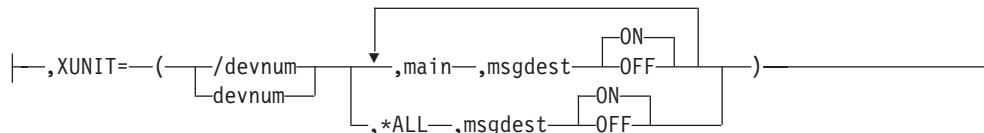
Notes:

1   When defining IBM 3211, IBM 4245, or IBM 4248 devices, JES3 uses NO as the parameter default.

Parameters

Table 24. Valid Parameters by Device for the DEVICE Initialization Statement

Parm	All Devices	All Printers	All Punches	3800-1	3800-3 3800-6 3800-8	3820	AFP1	4245 & 4248	3525	SNA RJP
ALTPM=					valid					
BURST=		valid	valid	valid	valid	valid	valid	valid	valid	
CARRIAGE=		valid		valid	valid	valid	valid	valid		
CB=				valid				valid		
CHARS=				valid	valid	valid	valid			
CHNSIZE=										valid
CKPNT=		valid	valid	valid	valid	valid	valid	valid	valid	
CKPNTPG=					valid	valid	valid			

Table 24. Valid Parameters by Device for the DEVICE Initialization Statement (continued)

Parm	All Devices	All Printers	All Punches	3800-1	3800-3 3800-6 3800-8	3820	AFP1	4245 & 4248	3525	SNA RJP
CKPNTSEC=					valid	valid	valid			
COPYMARK=					valid	valid	valid			
DGROUP=	valid	valid	valid	valid	valid	valid	valid	valid	valid	
DGRPONLY=	valid	valid	valid	valid	valid	valid	valid	valid	valid	
DTYPE=	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid
DYNAMIC=		valid	valid	valid	valid	valid	valid	valid	valid	
FEATURES=				valid			valid			
FLASH=				valid						
FORMS=		valid	valid	valid	valid	valid	valid	valid	valid	
FSSNAME=					valid	valid	valid			
HEADER=		valid	valid	valid	valid	valid	valid	valid	valid	
JNAME=	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid
JUNIT=	valid	valid	valid	valid	valid	valid	valid	valid	valid	valid
LDENS=										valid
LINELIM=		valid	valid	valid	valid	valid	valid	valid	valid	
MODE=					valid	valid	valid			
MODIFY=				valid			valid			
NPRO=					valid		valid			
NUMDEV=			valid	valid	valid		(1)	valid	valid	
OPACTLOG=					valid	valid	valid			
PAGELIM=		valid	valid	valid	valid	valid	valid	valid	valid	
PDEFAULT=					valid	valid	valid			
PDIR=										valid
PM=		valid	valid	valid	valid	valid	valid	valid	valid	
RDFEAT=									valid	
RECORDS=		valid	valid	valid	valid	valid	valid	valid	valid	
SELECT=										valid
SETUPMSG=					valid	valid	valid			
SVF=										valid
STACKER=				valid			valid			
TRAIN=							valid	valid		
WC=		valid	valid	valid	valid	valid	valid	valid	valid	
WS=		valid	valid	valid	valid	valid	valid	valid	valid	
XLATE=		valid	valid	valid	valid	valid	valid	valid	valid	valid
XTYPE=			valid	valid	valid		(1)	valid	valid	
XUNIT=			valid	valid	valid		(1)	valid	valid	

Note:

1. Parm is not valid for VTAM-attached printers.

DEVICE (I/O)

The following chart shows required and optional parameters for defining a JES3 device, execution device, or shared device. For each device type, use only the required or optional parameters. R indicates a required parameter; O indicates an optional parameter.

DEVICE statement parameters	Device type		
	JES3	Execution	Shared
DTYPE=	R (See notes 1, 2, and 3)		R (See notes 1, 2, and 3)
DGROUP=	O (See notes 1, 2, and 3)		O (See notes 1, 2, and 3)
JNAME=	R (See note 3)		R (See note 3)
JUNIT=	R (See note 3)		R (See note 3)
XTYPE=		R	R
XUNIT=		R	R
printer or punch parameters (See note 2)	O	O	O

Note:

1. If you code DTYPE=PRTxxxxx, or PUNxxxx, or RDRxxxx, or TAxxxxx, and the JUNIT parameter specifies a device number, you must code the XTYPE and XUNIT parameters.

2. If you define a printer as a JES3 device and that printer is also defined on a JES3ABEND, JES3SNAP, or SYSABEND DD statement, the printer can contain interspersed output. This can happen when the JES3 task and the ABDUMP task write concurrently to the printer.

3. IBM recommends that a TSO userid should not have the same name as a device JNAME, JUNIT, or DGROUP value. This avoids ambiguity when routing inbound SYSOUT data sets.

The following figure lists I/O devices. For each device type name, the figure shows whether you can specify that device type in the variable field of a DTYPE subparameter.

Table 25. I/O Generic Device Type Names

Generic Device Type (model)	Can this device type name be specified in the variable field of DTYPE=?					
	PRTxxxxx?	PUNxxxx?	RDRxxxx?	RMTxxxx?	TAxxxxx?	Notes:
1403	Yes	No	No	Yes	No	
2250(3)	No	No	No	No	No	
2265	No	No	No	No	No	
2305(2)	No	No	No	No	No	
2501	No	No	Yes	No	No	
2540(1,2)	No	Yes	Yes	Yes	No	
2671	No	No	No	No	No	
2740	No	No	No	No	No	
2955	No	No	No	No	No	
3060	No	No	No	No	No	
3180(1)	No	No	No	No	No	Specify as the 3278 that is being emulated.
3203	Yes	No	No	Yes	No	
3211	Yes	No	No	Yes	No	
3277(1,2)	No	No	No	No	No	
3278 (2,2A,3,4,5)	No	No	No	No	No	
3279(2,2A,2B, 2C,3A,3B)	No	No	No	No	No	
3284(1,2)	No	No	No	No	No	

Table 25. I/O Generic Device Type Names (continued)

Generic Device Type (model)	Can this device type name be specified in the variable field of DTYPE=?					
	PRTxxxxx?	PUNxxxx?	RDRxxxx?	RMTxxxx?	TAxxxxx?	Notes:
3286(1,2)	No	No	No	No	No	
3288(2)	No	No	No	No	No	
3289(1,2)	No	No	No	No	No	
3330	No	No	No	No	No	
3330-1	No	No	No	No	No	
3330V	No	No	No	No	No	
3340	No	No	No	No	No	
3350	No	No	No	No	No	
3375	No	No	No	No	No	
3380	No	No	No	No	No	
3390	No	No	No	No	No	
3400 (2,3,4,5, 6,7,8,9)	No	No	No	No	See Note	Specify 73400 for 7-track, 93400 for 9-track and 34009 for 3480 compatibility mode.
3422	No	No	No	No	See Note	3400 Tape.
3429	No	No	No	No	See Note	Specify TA93429.
3430	No	No	No	No	See Note	3400 Tape.
3480	No	No	No	No	See Note	Specify TA03480 or TA03480X. TA03480X defines an IBM 3480 tape subsystem with compaction.
3490	No	No	No	No	See Note	Specify TA33490.
3505	No	No	Yes	No	No	
3525	No	Yes, Note 1	Yes, Note 2	No	No	1. Specify 3525I for a 3525 with the two-line print feature. Specify 3525M for a 3525 with the multiline print feature. 2. 3525 is valid for RDRxxxx only if the card reader feature is installed.
3590–1	No	No	No	No	See Note	Specify TA435901 on DTYPE
3800 (1,2,3,6,8)	Yes	No	No	No	No	For a 3800 model 3 or 6, specify 38003. For a 3800 model 8, specify 38008. For all other models, specify 3800.
3812	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE

DEVICE (I/O)

Table 25. I/O Generic Device Type Names (continued)

Generic Device Type (model)	Can this device type name be specified in the variable field of DTYPE=?					
	PRTxxxxx?	PUNxxxx?	RDRxxxx?	RMTxxxx?	TAxxxxx?	Notes:
3816	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE
3820	Yes	No	No	No	No	
3825	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE
3827	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE.
3828	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE.
3835	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE.
3900	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE
4224	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE
4234	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE
4245	Yes	No	No	Yes	No	
4248	Yes	No	No	Yes	No	
5450	No	No	No	No	No	
6870	No	No	No	No	No	
any AFP device	Yes	No	No	No	No	Specify PRTAFP1 on DTYPE.

ALTPM=
Specifies that JES3 can schedule data sets with this process mode to this device when an operator uses a command to change the device operating mode from what you originally defined on the MODE parameter of the DEVICE statement. In other words this value is an alternate to that defined on the PM parameter. You can specify 1 to 8 alphanumeric characters for the alternate process mode. You can define a maximum of eight alternate process modes for a device.

A combined total of 255 process modes and alternate process modes can exist in one JES3 complex at one time. For more information about this parameter, see "Defining Process Modes" in *z/OS JES3 Initialization and Tuning Guide*.

If the device is an IBM 3800 model 3 with MODE=FSS specified (or defaulted to) on this statement, the default is LINE. If the printer is anIBM 3800 model 3 with MODE=COMP specified (or defaulted to) on this statement or a line mode printer, the default is (LINE,PAGE). The ALTPM parameter is valid only for the IBM 3800-3, 3800-6, and 3800-8 printers.

BURST=
Specifies whether you want burst (trailer) pages printed or punched. You can specify this parameter with printer and punch devices only. If you specify the SELECT parameter, JES3 ignores the BURST parameter.

YES
>   Indicates that you want this device to print or punch burst pages at the end of each job.

NO   Indicates that you do not want this device to print or punch burst pages.

M   Specifies that you want JES3 to mark the edges of the burst page or mark three blank pages following a job's output for ease of separation. You can modify the mark forms specification after initialization using a *CALL, *START, or *RESTART,WTR command. See *z/OS JES3 Commands* for information about these commands.

If you specify an invalid subparameter, JES3 uses the parameter default.

CARRIAGE=
>   Specifies the carriage tape or forms control buffer (FCB) associated with this device. You can specify this parameter for printers only.

NO   Specifies that the carriage tape or FCB on this printer cannot be changed during writer execution.

YES
>   Specifies that the carriage tape or FCB (3211, 3203, or 3800 only) can be changed during writer execution as required.

STANDARD
>   Specifies the standard carriage tape that you define on the OUTSERV initialization statement.

carrtape
>   Specifies the name (1 to 8 characters) of the carriage tape that is initially mounted on the printer or the name (1 to 4 characters) of the FCB that is to be initially loaded on the printer. If the device is a 3211, 3203, or 3800 printer, a module must be included in SYS1.IMAGELIB, having the name FCB2xxxx or FCB3xxxx, where xxxx is the 1- to 4-character name of the forms control buffer. To define or modify an FCB image for a 3211 or 3203 printer, refer to *z/OS DFSMSdfp Advanced Services*. To define or modify an FCB image for a 3800 printer, refer to the IEBIMAGE documentation in *z/OS DFSMSdfp Utilities*.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: If you are using the user exit IATUX23 and you are coding FCBs for use with JES3 defined printers that are other than 3800, then you must code a CHANNEL 12 in the FCB.

CB=
>   Specifies when you want JES3 to clear the device's buffer. You can specify this parameter for the IBM 3800, IBM 4245, and IBM 4248 printers only.

D   Specifies that you want the data set option used. This causes output service to clear the buffer at the end of each data set and pause shortly at the end of each data set.

J   Specifies that you want the job option used. This causes output service to clear the buffer at the end of each job and pause shortly at the end of each job.

N   Specifies that you do not want the device's buffer cleared unless required by a function. Maximum performance is obtained with CB=N. Examples of functions that require a clear printer command are:

- loading new characters
- requesting operator setup
- waiting for work

When the device is in manual mode (M specified on *X, *R, or *S and M is specified in message IAT8562), a clear printer command is issued (to clear the buffer) before each data set and CB has no effect.

If you specify an invalid subparameter, JES3 uses the parameter default.

CHARS=
Specifies the image(s) to be set up on printers that support character sets (for example: 3800, 3816, 3820) and whether the images are allowed to be changed. For specific printer information, see the documents provided with your printer.

YES
    Allows changing of images.

NO Does not allow changing of images.

STANDARD
    Specifies that the name of the image to be set up is defined on the OUTSERV initialization statement.

id1
    Specifies a 1- to 4-character name of an image to be set up. You can specify up to four names.

If you do not specify the CHARS parameter for remote devices, the default is NO.

If you specify an invalid subparameter, JES3 uses the parameter default.

For information about determining which output parameter values apply during printing, see *z/OS JES3 Initialization and Tuning Guide*.

CHNSIZE=
Specifies the size of the RU chain to be transmitted to this SNA work station.

DS Specifies that the entire data set is to be sent as a single chain.

nnn
    Specifies the number of pages that the chain is to contain. Control characters in the data (skip to channel 1 for printers or eject for punches) delimit the page size. The value for nnn can be any number from 1-255.

(nnn,mmm)
    Specifies the number of pages (nnn) in the chain and the number of logical records (mmm) in each page. This form of the subparameter allows you to transmit, as a multiple chain, a data set that contains no control characters.

    The value for nnn and for mmm can be any number from 1-255.

Note:
1. If CHNSIZE=DS is specified no output checkpoints will be taken.
2. If you specify nnn or (nnn,mmm), JES3 takes an output checkpoint before each chain is transmitted.
3. CHNSIZE specified on a //*FORMAT statement overrides this CHNSIZE specification. CHNSIZE specified on this statement overrides CHNSIZE specified on a DEVICE statement.

4. CHNSIZE=DS gives the best performance, but error conditions detected cannot result in a restart from the last checkpoint since checkpoints are not taken.

CKPNT=
> Specifies that a checkpoint is to be taken after the specified number of records. The number specified must be between 100 and 32767.
>
> JES3 uses a default value of 200 for punch devices. For a printer, the following chart shows the default for each printer type.

Table 26. Changing the FSSNAME Parameter during a Hot Start with Refresh

Printer Type	Default
3800	CKPNT=10000
3211	CKPNT=2000
Other Line Mode Printers	CKPNT=1000
FSS-Supported Printers	Invalid

> **Note:** If you specify an invalid subparameter, JES3 uses the parameter default.

CKPNTPG=
> Specifies that a checkpoint is to be taken after the specified number of pages. The number specified must be between 1 and 32,767, inclusive. If this parameter is specified for any printer other than one operating in FSS mode (such as a 3800 model 3), the parameter is ignored. If the 3800 model 3 is running in compatibility mode, the checkpoint value is taken from the CKPNT parameter. You can modify this checkpoint parameter after initialization using the CK parameter on a *CALL, *START, or *RESTART,WTR command. For information about using JES3 commands, see *z/OS JES3 Commands*.
>
> If neither this parameter nor the CKPNTSEC parameter is coded, the default is CKPNTPG=200. If you specify an invalid subparameter, JES3 uses the parameter default.
>
> **Note:** Do not code the CKPNTPG and CKPNTSEC parameters on the same DEVICE statement; they are mutually exclusive.

CKPNTSEC=
> Specifies that a checkpoint is to be taken after the specified number of seconds. The number specified must be between 1 and 32,767, inclusive. If this parameter is specified for any printer other than one operating in FSS mode, the parameter is ignored. If the printer is running in compatibility mode, the checkpoint value is taken from the CKPNT parameter. You can modify this checkpoint parameter after initialization using the CK parameter on a *CALL, *START, or *RESTART,WTR command. For information about using JES3 commands, see *z/OS JES3 Commands*.
>
> If neither this parameter nor the CKPNTPG parameter is coded, the default is CKPNTPG=200.
>
> If you specify an invalid subparameter, JES3 uses the parameter default.
>
> **Note:** Do not code the CKPNTPG and CKPNTSEC parameters on the same DEVICE statement; they are mutually exclusive.

COPYMARK=
> Specifies that you want vertical separator lines printed on the edges of output. If this parameter is specified for any printer other than one operating in FSS

mode, the parameter is ignored. If the printer is running in compatibility (COMP) mode, a vertical separator line will still be sent on a job and data set basis if you also specify HEADER=YES on this statement. These separator lines help identify the beginning and end of each job or data set in a stack of output. A change in the thickness of the copy mark indicates the beginning of a new job, data set, or multiple copies of a data set.

You can modify this COPYMARK= parameter after initialization using the CM parameter on a *CALL, *START, or *RESTART, WTR command. For information about using JES3 commands, see *z/OS JES3 Commands*.

N   Specifies that you do not want to use copy marks. Although JES3 continues to print a vertical line on the edges of output from IBM 3800 printers, the thickness does not vary.

J   Specifies that you want copy marks printed on a job basis. A change in the thickness of the copy mark indicates the beginning of a new job.

C   Specifies that you want copy marks printed on a data set copy basis. For multiple copies of a data set, JES3 increments the thickness of the copy mark after each copy.

DGROUP=
Specifies the 1 to 8 alphameric-character name used to combine devices by physical location. When input is received from a device in a particular DGROUP, JES3 makes an attempt to send the associated output to the same DGROUP location. This parameter is ignored when defining remote devices.

DGRPONLY=
Specifies which data sets can be scheduled to this device when destination checking is in effect (WS=D). Specifying DGRPONLY=YES limits the use of this device to only those data sets that are destined for this device group. DGRPONLY=NO specifies that this device can also process data sets that are destined for any local device.

This parameter can be useful when defining SNA-attached AFP printers. For example, JES3 considers IBM 3827 printers to be local devices, even though they may be placed at distant locations. Specifying DGRPONLY=YES for these devices prevents data sets destined for any local device from being printed at remote locations.

You can use the *MODIFY,W command to dynamically change the device group scheduling criteria. However, you must restart any jobs in the output service hold queue when you dynamically change this value. See *z/OS JES3 Commands* for a description of the *MODIFY,W command.

DTYPE=
Specified for a JES3 device to indicate the device type. This parameter must precede the JUNIT and SELECT parameters on a DEVICE statement. See the previous device type table for the device type names that can be specified in the variable fields (xxxx) of the subparameters.

PRTxxxxx
Identifies a locally-attached printer. Specify PRTAFP1 for AFP1 printers. An AFP1 printer can be either channel attached or non-channel attached.

PUNxxxx
Identifies a locally-attached punch.

RDRxxxx
Identifies a locally-attached reader.

RMTxxxx

Identifies a remote terminal (described by an RJPTERM or RJPWS statement). For SNA RJP printers, specify RMTPRINT. For SNA RJP punches, specify RMTPUNCH.

TAxxxxx

Identifies a tape device.

username

Indicates a device type which is associated with a user DSP.

DYNAMIC=

Specifies whether you want this device started dynamically when there is work available to print, punch, or to be sent to a remote printer or punch.

NO Specifies that you can only start this device by calling a hot writer using the JES3 *CALL,WTR command.

NO,+

Specifies that the writer is to remain active indefinitely even when no output is available for processing.

YES

Specifies that the writer is to stop automatically when no more output is available for processing.

YES,0

Specifies that the writer is to stop automatically when no more output is available for processing.

YES,*timeout*

Specifies that the writer is to stop automatically after the specified period of time, *timeout* if there is not more output to process.

timeout

The *timeout* parameter controls the writer when it is stopped. This value can be specified in either minutes, hours, or days. A (+) sign specifies that the writer is to remain active indefinitely. A (0) specifies that the writer is to stop when no more output is available for processing.

> **nnnM**
>
> Specifies a non-zero timeout interval in minutes (up to 999 minutes)
>
> **nnnH**
>
> Specifies a non-zero timeout interval in hours (up to 999 hours)
>
> **nnnD**
>
> Specifies non-zero timeout interval in days (up to 999 days)
>
> **0** Specifies that the writer is to stop when no more output is available for processing.
>
> **+** Specifies that the writer is to remain active until an operator stops it using a JES3 *CANCEL command.

You can change the value of this parameter during system operation using the *MODIFY,W command. For information about using JES3 commands, see *z/OS JES3 Commands*. If you omit this parameter, JES3 uses a value of YES for all devices except those that run under the control of an output writer FSS. For FSS devices, JES3 uses a value of NO.

If the JES3 DEVICE initialization statement of your IP printway FSA specifies DYNAMIC=YES and the WS criteria includes form, JES3 will not start the FSA dynamically unless a print data set's attribute, and other attributes, match the FSA's work selection criteria.

If you specify an invalid subparameter, JES3 uses the parameter default.

FEATURES=
Specifies the features of a 3800 printer.

CGS2
Specifies that the additional character generation storage feature is installed on the printer.

SS Specifies that the burster-trimmer-stacker is attached.

FLASH=
Specifies the forms overlay frame associated with this device. You can specify this parameter for an IBM 3800 printer only.

YES
Indicates that forms flashing is allowed to change.

NO Indicates that forms flashing must not change.

STANDARD
Indicates that the corresponding ID in the OUTSERV initialization statement will be used in the mounting of the forms overlay frame.

name
Indicates that the 4-character name specified will be used in the mounting of the forms overlay frame.

If you specify an invalid subparameter, JES3 uses the parameter default.

FORMS=
Specified for printer and punch devices only. This parameter describes the forms associated with this device.

YES
Indicates that the forms on this printer or punch can be changed during writer execution as required.

NO Indicates that the forms on this printer or punch cannot be changed during writer execution.

STANDARD
Indicates the standard forms defined on the OUTSERV initialization statement are to be used.

forms
Indicates the name (1 to 8 characters) of the forms that are initially mounted on this printer.

If you specify the name of the initial forms, you must first explicitly specify either YES or NO.

If you specify an invalid subparameter, JES3 uses the parameter default.

FSSNAME=
Specifies the installation-defined name of the functional subsystem (FSS) under which an AFP printer will operate. The name must match the name

of an output writer FSS defined on a FSSDEF initialization statement. If you omit this parameter, the value specified for the JNAME parameter on this DEVICE statement is used.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: During a hot start with refresh, changing the FSSNAME parameter requires knowing the state of the FSS associated with the original FSSNAME parameter and the state of the FSS associated with the new FSSNAME parameter. Table 27 shows the conditions when you can consider changing the FSSNAME parameter whether it is the original or new FSSNAME.

Table 27. Changing the FSSNAME Parameter during a Hot Start with Refresh

FSS Active	FSS Inactive	FSS on Global	Global IPLed before hot start with refresh	Can FSSNAME parameter be changed?
Yes	-	Yes	Yes	Yes
Yes	-	Yes	No	No
Yes	-	No	-	No
-	Yes	-	-	Yes

HEADER=
Specified for printer and punch devices only.

NO Indicates that this printer or punch is not to print or punch block header pages for a job or its data sets.

YES
Indicates that this printer or punch is to print or punch block header pages for each job and each data set. If the device is a 3800 model 3 printer running in compatibility (COMP) mode, a copymark is also sent along with the header pages.

Note: If you specify the SELECT parameter, JES3 ignores the HEADER parameter.

If you specify an invalid subparameter, JES3 uses the parameter default.

JNAME=
Specifies the 1- to 8-character name of a JES3 device. The first character of the name cannot be a slash (/). This name should be unique to the device and must not be the same as used for the DGROUP parameter name. JNAME is used by the operator to refer to a JES3 device. For RJP devices, the JNAME must include (1) the work station name, which is assigned by the user, and must be exactly 5 characters in length, (2) followed by PRn for a printer, PUn for a punch, and RDn for a reader. The 'n' can be any number from and including X'1' to X'F'. When the NUMDEV parameter is used, JNAME specifies a 1–4 character prefix. See the NUMDEV= keyword for how the actual JNAMEs for a range of devices is determined.

JUNIT=
Specifies:
- The number of the device on that main or NONE if the device does not attach to that main
- The name of a main to which the device is attached
- Routing information for messages about the device

- Whether the device is initially on-line or off-line, or not identified to the system during MVS initialization.

You must code the following group of subparameters for each main to which the device is attached:

/devnum or devnum or NONE
> Specifies the device number (by 3-digit or 4-digit hexadecimal number). A slash (/) preceding the device number is not required. Device numbers can be specified by any of the following formats:
>
> ```
> ddd
> dddd
> /ddd
> /dddd
> ```
>
> ddd and dddd represent the device numbers. This must be the address to which the device is attached on the processor named *main*. Specify NONE if the device is not attached to that main. If a device is not channel-attached (for example, the 3820 or 3816 printer), do not code /devnum or devnum; instead, use a comma as a position holder. For remote devices, you can specify either NONE or use a comma as a position holder.

main
> Specifies a processor which can use this device as a JES3 global device when that main is global. This name must be the same name as that defined in the NAME parameter on a MAINPROC initialization statement. The device must be attached to this main at the address specified by */devnum or devnum*.
>
> Alternatively, a main name of *ALL can be used. Using *ALL indicates that all processors in the complex are eligible to use this device as a JES3 global device when the processor is the global. When *ALL is used, no other group of *devnum,main,msgdest,OFF|ON* can be used on the JUNIT parameter of this DEVICE initialization statement, and the values specified for *devnum,main,msgdest,OFF|ON* are the same for all mains.

msgdest
> Specifies the routing information for messages concerning this device. If you are defining this device to run under the control of an output writer FSS, do not specify the MLG or ALL destination classes for this parameter. If you specify one of these classes, the routing information defaults to routing code 42 which is the route code equivalent of JES3 Destination Class **JES**.
>
> This value may be specified as a JES3 destination class or as an MVS routing code. If a routing code is used, nnn specifies a decimal number from 1 through 28, or 41 through 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

OFF
> Specifies that the initial JES3 status of this device (as a JES3 device) is offline to JES3. For an assignable device, JES3 also varies the device offline to MVS unless it is online as an execution unit.

ON Specifies that the initial JES3 vary status of this device (as a JES3 device) is online to JES3. For an assignable device, JES3 also varies the device online to MVS.

Note: For the 3820 printer, specifying JUNIT=(/devnum or devnum... is not valid. Instead, you must use a comma as a place-holder when specifying the JUNIT parameter. This parameter cannot precede the DTYPE parameter.

LDENS=

Specifies whether the set line density command is to be sent with the set vertical format (SVF) record to the work station. If the SVF=NO parameter is specified, this parameter is ignored.

YES

Specifies that the set line density command is to be sent with the SVF record. The work station printer will print the number of lines per inch specified in the FCB image in SYS1.IMAGELIB. The number of lines will be either 6 or 8 per inch.

NO Specifies that the set line density command is not to be sent with the SVF record. The work station printer will print 6 lines per inch.

Note: Before specifying LDENS=YES, consult the software component description for the receiving unit to determine whether the software supports the set line density command. If the software does not support this command and the command is sent, the results are unpredictable.

LINELIM=

Specifies line limits for printer or punch devices only. The LINELIM parameter is associated with the WS=L parameter on the *CALL,WTR, *START, or *RESTART operator commands or the DEVICE or OUTSERV initialization statement.) The number specified must be between 0 and 2,147,483,647, inclusive.

nnnnnnnnnn

Indicates that a data set must have this number of output lines or less to be selected for output processing.

nnnnnnnnnn+

Indicates that a data set must have this number of output lines or more to be selected for output processing.

MODE=

Specifies the mode of an FSS-controlled device.

COMP

Specifies that JES3 is to consider the printer as a line mode printer compatible with other 3800 printers. JES3 creates an FSS table entry for the printer but the printer runs under the control of a writer DSP in the JES3 global address space. This parameter is only valid for an IBM 3800 model 3 printer.

FSS

Specifies that JES3 is to consider the printer as one that runs under the control of an output writer FSS in its own address space.

For guidelines on choosing a value for this parameter, see "Running a Page Mode Printer" in *z/OS JES3 Initialization and Tuning Guide*.

If you specify the FSSNAME parameter on this statement, the default value for the MODE parameter is FSS. Otherwise, the default value is COMP.

If you specify an invalid subparameter, JES3 uses the parameter default.

> **Note:** If the device is an IBM 3820 or an AFP1 printer, JES3 assumes MODE=FSS, whether explicitly coded or not.

MODIFY=
Specified for the 3800 printer only. This parameter specifies the name of the copy modification module to be used as the table reference character for this device.

YES
Specifies that copy modification module changes can be made.

NO Specifies that copy modification module changes cannot be made.

STANDARD
Specifies that the copy modification module to be used is defined by the OUTSERV initialization statement.

name
Specifies the 1- to 4-character name of the copy modification module.

0–3
Specifies the table reference character to be used with the copy modification module.

If you specify an invalid subparameter, JES3 uses the parameter default.

NPRO=
Specifies the non-process run-out interval for a channel-attached AFP printer running in FSS mode. If you later modify the NPRO interval using an operator command, JES3 retains the change across a hot start.

nnnn
Specifies the number of seconds the printer will wait for more data before forcing out the already-printed pages. The value specified must be between 0 and 9999, inclusive.

STANDARD
Specifies that the run-out interval will be taken from the NPRO parameter on the OUTSERV statement.

NO Specifies that the run-out interval is not to be used for this printer.

If you specify an invalid subparameter, JES3 uses the parameter default.

NUMDEV=

Specifies the number of devices to be defined by this DEVICE statement, starting with the specified JUNIT or XUNIT. For example,

- If a DEVICE statement defines

  `XUNIT=(3A0,main,md,ON),NUMDEV=32`

  32 devices will be defined with XUNITs of 3A0 through 3BF on the specified main.
- If DEVICE statement defined

  `JNAME=TAPE,JUNIT=(FFF,main,md,ON),NUMDEV=3`

  three JNAMES of TAPE0FFF, TAPE1000, and TAPE1001 are defined with corresponding JUNITs of FFF, 1000, and 1001 on the specified main.

The NUMDEV parameter requires at least one JUNIT or XUNIT with a device number. For example, NUMDEV is not valid on a DTYPE=SYSMAIN or a VTAM-attached FSS printer.

Note:

1. Referenced JNAME

   If the device is a JES3 global device, the JNAME parameter specifies a prefix rather than a complete JNAME. A four digit device number is built based on the JUNIT and NUMDEV and concatenated with the prefix to form a complete JNAME. For example, if the JUNIT=3A0, the specified JNAME is TAPE, and NUMDEV=32, the statement will define 32 JNAMEs of TAPE03A0 through TAPE03BF. Because of converting JNAME this way, omitting NUMDEV for JES3 global devices is not the same as specifying NUMDEV=1.

   If the JUNIT combines mains with different device numbers, for example, `JUNIT=(3A0,SY1,,ON,9C0,SY2,,ON)`, the first specification is used to build the JNAMEs (`3A0` in this case).

   If the JUNIT combines mains with device numbers and NONE, for example, `JUNIT=(NONE,SY1,,ON,9C0,SY2,,ON)`, the first group with an actual device number is used to build the JNAMEs (`9C0` in this case).

   Since the JUNIT part of the JNAME is padded with 0's if it is a three digit device, be careful to use the correct JNAME if you reference a JNAME on any other initialization statement (for example, FSSDEF or SYSOUT).

2. Duplicate XUNIT

   If the use of the NUMDEV parameter causes a range of devices to generate duplicate definitions, the device that appears earlier in the initialization stream prevails and the duplicate part of the range is ignored with a warning message, but any part of the range that is not duplicate also prevails. For example, if DEVICE statement 1 defines XUNIT=205 and DEVICE statement 2 later defines XUNIT=200,NUMDEV=8, the XUNIT=204 from device statement 1 prevails and XUNIT=204 from DEVICE statement 2 is ignored with a warning message, but DEVICE statement 2 successfully defines 200 through 203 and 205 through 207. If, however, these statements were reversed, the entire NUMDEV range would prevail and XUNIT=204 would be ignored with a warning message.

3. Duplicate JUNIT versus XUNIT

   In determining duplicates, JES3 also considers a definition duplicated if one DEVICE statement defines a device number as a JUNIT and another DEVICE statement defines the same device number as an XUNIT. In the preceding example, if DEVICE statement 1 specifies JUNIT=204 instead of XUNIT=204 this would still be considered a duplicate, even if DEVICE statement 2 specifies an XUNIT range that includes 204 but no JUNIT.

4. Duplicate JNAME

   It is also possible for the use of the NUMDEV parameter to cause duplicate JNAMEs to be generated. In the case of duplicate JNAMEs, the same rule holds: the earlier definition prevails but any part of the range that is not duplicate also prevails.

OPACTLOG=

Specifies whether operator command actions are to be logged in the output of this device. If the parameter is not specified, JES3 will log the messages only if both, the header and trailer pages are specified on the device. The default is 'YES'.

YES
Specifies that operator command actions will be logged in the output
of this device using message IAT7066 or IAT7067. This parameter is
only valid for FSS devices.

NO Specifies that operator command actions will not be logged in the
output. This parameter is only valid for FSS devices.

PAGELIM=
Specifies page limits for output processing on an AFP printer. The
PAGELIM parameter is associated with the WS=L parameter on the
*CALL,WTR *START, or *RESTART operator commands or the DEVICE or
OUTSERV initialization statement.

nnnnnn
Indicates that a data set must have this number of output pages or less
to be selected for output processing on a 3820 or 3800 model 3 printer.
The value specified must be an integer between 0 and 999999,
inclusive.

Note: If you specify line and page limits (L) in the work selection (WS)
list and set (or accept the default of) PAGELIM=0 here, JES3 will not be
able to select page-mode data sets for this device.

nnnnnn+
Indicates that a data set must have this number of output pages or
more to be selected for output processing on the AFP printer. The
value specified must be an integer between 0 and 999999, inclusive.

If you specify an invalid subparameter, JES3 uses the parameter default.

PDEFAULT=
Specifies a subset (CHARS and FCB) of the JES3 default values that you
can specify that are **not** applied when controlling output processed by
FSS-supported printers.

CHARS and FCB values can be applied from the FSS procedure
PRINTDEV statement or the application JCL by coding
PDEFAULT=CHARS or PDEFAULT=FCB, in conjunction with the
corresponding WS= parameter (WS=U and/or WS=C). As a result, the FSS
procedure PRINTDEV values are applied to the output during FSS
processing, unless explicit specifications are made in the data set JCL.

If WS=C or WS=U are not coded in conjunction with the corresponding
PDEFAULT values, the current values for the device are applied. These
values are a combination of JES3 defaults, JES3 DEVICE initialization
values and operator command changes to the values.

For additional details, refer to the scheduling output information in *z/OS
JES3 Initialization and Tuning Guide*

CHARS
Indicates that JES3 will not supply default CHARS and UCS to the FSS
for output that does not specifically request a CHARS or UCS value.
Use this parameter with WS=U to apply values from PRINTDEV or
JCL.

FCB
Indicates that JES3 will not supply default FCB or carriage tape to the

FSS for output that does not specifically request an FCB or carriage tape value. Use this parameter with WS=C to apply values from PRINTDEV or JCL.

NONE
Indicates that the FSS will use all the JES3 default characteristics. If you specify an invalid subparameter, JES3 uses the parameter default.

The following overrides apply to the PDEFAULT parameter:

1. If WS=U/C and PDEFAULT=CHARS/FCB are coded together, the following override hierarchy applies:
   a. JCL values apply, if coded.
   b. PRINTDEV device values apply if no JCL values are used.
2. If WS=U/C is coded and PDEFAULT=CHARS/FCB is not coded, the following override hierarchy applies:
   a. JCL values apply, if coded.
   b. JES3 Data Set Defaults apply if no JCL values are used. Because WS= selection is in effect, the data set characteristics must match the current device set up.
3. If WS=U/C is not coded and PDEFAULT=CHARS/FCB is coded, the override hierarchy is: Current JES3 device values apply.
4. If neither WS=U/C nor PDEFAULT=CHARS/FCB are coded, the override hierarchy is: Current JES3 device values apply.

Table 28 lists the PDEFAULT override rules. Note that for the output to be selected, the final character set must match the character set on the device, with the exception of rule A.2:

Table 28. PDEFAULT override rules

JCL CHARS=	WC=	PDEFAULT=	OUTSERV=	DEVICE=	PRINTDEV=	Source of Passed Parm	Rule
GT15	U	CHARS	GS10	GT15	GT10	GT15 - JCL	A.1
	U	CHARS	GS10		GT10	GT10 - PRINTDEV	A.2
GT15	U		GS10	GT15	GT10	GT15 - JCL	B.1
	U		GS10	GS10	GT10	GS10 - JES3 Dev Value*	B.2
GT15		CHARS	GS10	GT12	GT10	GT12 - JES3 Dev Value*	C
GT15			GS10	GT15	GT10	GT12 - JES3 Dev Value*	D
* The current device value, from DEVICE= or operator commands.							

PDIR=
Specifies at what point(s) a peripheral data set information record (PDIR) is to be sent with a job.

ALL
Specifies that a PDIR is to precede every data set in a job.

BDS
Specifies that a PDIR is to be sent at the beginning of the job, when JES3 sends the begin destination select (BDS) command. If you specify this parameter but the setup characteristics or copy count change between data sets, JES3 sends a PDIR between those data sets.

PM=
Specifies that data sets with this process mode may be scheduled to this

device when the device is in the operating mode that is specified on the MODE parameter. The process mode is 1 to 8 alphanumeric characters. A maximum of eight process modes may be defined for a particular device. You can modify a data set's process mode after initialization using the MODIFY,U,Q=WTR command. For information about using JES3 commands, see *z/OS JES3 Commands* . For more information about this parameter, see "Defining Process Modes" in *z/OS JES3 Initialization and Tuning Guide* .

JES3 uses the following defaults for this parameter:

- LINE for all line mode printers.
- (LINE,PAGE) for all printers that must run under control of an output writer FSS or a 3800 model 3 printer that you are running in FSS mode (MODE=FSS on the DEVICE statement).
- LINE for a 3800 model 3 printer that you are running in compatibility mode (MODE=COMP on the DEVICE statement).

If you specify an invalid subparameter, JES3 uses the parameter default.

RDFEAT=

Indicates whether the 3525 card punch has the card read feature.

Y   indicates that the 3525 has the card read feature.

N   indicates that the 3525 does not have the card read feature.

Note: If you use this parameter, code it after coding the DTYPE parameter.

RECORDS=

Specified for printer or punch devices only.

nnn

Indicates the number of records (from 1 to 255) be read from the spool data set at one time by JES3 output service. The record referred to is a JES3 spool record whose size is specified by the BUFSIZE parameter of the BUFFER initialization statement.

If a RECORDS parameter is specified on more than one DEVICE initialization statement, JES3 selects the largest value to determine the number of records JES3 writes to spool sequentially.

JES3 uses the following default values.

- For a 3800, RECORDS=n, where

      n=(16K + (BUFSIZE/4))/BUFSIZE

- For a 3211, RECORDS=2.
- For all other devices, RECORDS=1.

SELECT=

Specifies that this statement defines a basic exchange device or an exchange device. The device must be attached to the SNA work station that is named in the first five characters of the JNAME parameter. The last three characters of the JNAME parameter must specify a printer. If you code the SELECT parameter, code it after coding the DTYPE parameter.

BEn

A basic exchange device is attached to the work station. Valid values for n are 1 to 9.

EXn

> An exchange device is attached to the work station. Valid values for n are 1 to 9.

LEN=

> Specifies the record length to be used for the exchange or basic exchange device.
>
> For basic exchange devices, the valid range is 1 to 128 and the LEN= subparameter is required.
>
> For exchange devices, the valid range is 1 to 255 and the default value is 132.

EDS=

> For data sets on the device's diskette, specifies whether JES3 is to separate data sets with unlike print requirements (this means unlike carriage control characters, forms control buffers, or forms).

Note: If the SELECT parameter is specified, the HEADER and BURST parameters on this statement are ignored and no header, or burst is used.

When specifying the SELECT=BEn parameter for two devices, the SELECT parameter can be the same on the two DEVICE statements for those devices. However, the LEN parameters cannot be the same because unpredictable results can occur: For example, the following is the correct way to indicate this in the initialization stream:

```
DEVICE,DTYPE=RMTPRINT,JNAME=WS000PR1,SELECT=BE2,LEN=1
DEVICE,DTYPE=RMTPRINT,JNAME=WS000PR1,SELECT=BE2,LEN=2
```

When SELECT=EXn is specified, you cannot define more exchange devices than there are physical disks available to support them.

If you specify the EDS parameter for a device that is not a SNA RJP device or for a device that uses Peripheral Data Set Information Record (PDIR) support, JES3 ignores the parameter.

SETUPMSG=

> Specifies that the installation wants to suppress writer setup message IAT7030 for FSS-supported devices. This is determined based on the characteristics of the device.
>
> **YES**
>
> > Indicates that the writer setup action message is displayed for the specified device. This is the default.
>
> **NO** Indicates the writer setup action message is not displayed for the specified device.
>
> This keyword applies only to FSS-supported devices. If it is specified for a non-FSS-supported device, warning message IAT3243 is issued and the keyword is ignored.

STACKER=

> Specified for 3800 printer only. This parameter describes the output stacking of the device. If the SS subparameter of the FEATURES parameter is not specified, STACKER=(NO,C) is forced.
>
> **YES**
>
> > Indicates that changing of output stacking is permitted.
>
> **NO** Indicates that changing of output stacking is not permitted.

STANDARD

Specifies that stacking is to be as specified on the OUTSERV
initialization statement.

S   Specifies that output is to be placed in the sheet stacker, where offset
stacking is performed.

C   Specifies that output is to be placed in the continuous forms stacker.

If you specify an invalid subparameter, JES3 uses the parameter default.

SVF=

Specifies that the set vertical format record (FCB load) is not to be sent to
this work station. If the device is defined as basic exchange, the set vertical
format record is not sent even if SVF=NO is omitted. For all other SNARJP
work stations, omitting SVF=NO causes SNARJP to send an SVF record to
the workstation NO is the only valid SVF value; any other value will be
ignored and the device is defined as if the parameter was omitted.

TRAIN=

Specified for printer devices or the 3525/3525M/3525I punch with print
feature only.

YES

Indicates that the initial print train or print band on this device can be
changed during writer execution as required. JES3 does not provide
UCS buffer loading to remote printers. However, the user may change
trains or bands on a remote printer but must provide the UCS buffer
loader as applicable to the type of work station.

NO   Indicates that the print train or print band on this printer cannot be
changed during writer execution.

STANDARD

Indicates that the print train or print band specified on the OUTSERV
initialization statement will be used. Do not specify STANDARD if
TRAIN=ANY is specified on the OUTSERV initialization statement.

train

Indicates the name of the print train or print band that is mounted on
this device at JES3 initialization. This field can be any valid name as
specified in SYS1.IMAGELIB.

If a user-created print train or band image is specified in this
subparameter and XLATE=YES is specified on the same DEVICE
statement, the user-created print train or band image must be included
in SYS1.IMAGELIB and the user must supply a translate table member
named IATWxx in SYS1.JES3LIB. The variable xx is the name of the
print train or print band as specified in the TRAIN parameter of this
statement or of the OUTSERV statement.

Note: If you do not specify the TRAIN parameter for remote devices, the
default is NO.

If you specify an invalid subparameter, JES3 uses the parameter default.

WC=

(c,...)

Specifies writer classes. This parameter indicates SYSOUT classes in the
order they are processed by the output service writers for this device.
Data sets for a class not specified will not be selected. The value of c

specifies a valid SYSOUT class (A-Z, 0-9) that appears as a SYSOUT parameter on a DD statement. If a list of classes is specified, separate each class by a comma.

STANDARD
Specifies that the values on the WC parameter of the OUTSERV initialization statement will be assumed.

If you specify an invalid subparameter, JES3 uses the parameter default.

WS=

(c,...) D,T,F,C,U,FL,CM,SS,CL,L,P,PM
Specifies the writer selection criteria. The value of c indicates the items JES3 output service checks, in order of importance, when selecting a data set for output processing on this device. (These WS parameter values remain in effect over a hot start.)

Specify the selections in order of importance and separate specifications with a comma.

Selection Character
   Meaning

C   Carriage tape or FCB

CL   SYSOUT class

CM   Copy modification

D   Data set destination

F   Forms requested

FL   Flash

L   Limit scheduling (line, page or record)

SS   Stacker

P   Data set priority

PM   Processing mode

T   Specific device type requested

U   Character arrangement table name (CHARS) or Train image (UCS).

For additional information about the influence of JCL parameters on the settings for WS=, see Appendix A, "Work Selection for JES3," on page 231.

STANDARD
Specifies that the values on the WS parameter of the OUTSERV initialization statement will be assumed.

If you specify an invalid subparameter, JES3 uses the parameter default.

Attention: JES3 does not take any action (such as issue mount messages or load FCB and UCS) if you omit printer and punch setup characteristics on this parameter. For example, a job that requires special forms may print on the wrong form if you omit forms as a selection criterion.

Note: If you specify (or accept the default of) PAGELIM=0 and specify L in the WS list here, JES3 will not be able to select page-mode data sets for this device.

XLATE=

Specified for printer or punch devices only, to indicate whether JES3 translates unprintable characters in output lines into blanks.

YES

Indicates that you want JES3 to translate unprintable characters into blanks.

NO Indicates that you do not want JES3 to translate unprintable characters into blanks.

When defining IBM 3211, IBM 4245, or IBM 4248 devices, JES3 uses a default value of XLATE=NO if you omit the XLATE parameter or specify an invalid subparameter. These device types do not require JES3 translation since the translation of unprintable characters is performed by the device itself. Specifying XLATE=YES for these devices can cause unnecessary device setup processing, which can interrupt the flow of data to the device.

XTYPE=

Specifies the characteristics of the JES3-managed or jointly managed device as it is used by jobs in execution. It must precede the XUNIT parameter, which is required if XTYPE is specified.

name

Specifies a 1- to 8-character name that defines a device that can be referenced. It should match the name specified in the XTYPE parameter on a SETNAME initialization statement.

CA Specifies that the device is cartridge tape.

TA Specifies that the device is reel tape.

GR Specifies that the device is graphic.

DA Specifies that the device is direct access.

UR Specifies that the device is unit record.

RM Specifies that the device will contain removable volumes whose mounting is to be controlled by MDS.

PR Specifies that the device will contain MVS permanently resident volumes.

Note: Devices within a specific XTYPE should have compatible characteristics. For a SNA-attached AFP printer, XTYPE is not a valid parameter.

XUNIT=

Specifies the characteristics of a device attached to one or more mains. If a device is shared between two or more mains, all four subparameters are specified for each main to which the device is attached. If a device is shared between channels of the same main, the SYSGEN primary address should be the only subparameter indicated.

/devnum or devnum

Specifies the device number (by 3-digit or 4-digit hexadecimal number)

of the device attached to the main. A slash (/) preceding the device number is not required. Device numbers can be specified by any of the following formats:

```
ddd
dddd
/ddd
/dddd
```

ddd and dddd represent the device numbers.

main

Specifies the processor to which the device is attached. This name must be the same as that defined in the NAME parameter on the MAINPROC initialization statement.

Alternatively, a main name of *ALL can be used. Using *ALL indicates that the device is attached to all processors in the complex. When *ALL is used, no other group of *devnum,main,msgdest,OFF|ON* can be used on the XUNIT parameter of this DEVICE initialization statement, and the values specified for *devnum,main,msgdest,OFF|ON* are the same for all mains.

msgdest

Specifies the routing information for all JES3 and MVS device-related messages concerning this device. If you do not specify any routing information, the SETUP parameter on the STANDARDS statement determines the default value that JES3 uses:

- If you specify SETUP=NONE, JES3 uses routing code 97 which is the routing code equivalent of destination class S1.
- If you specify any other value for SETUP or omit SETUP, JES3 uses the value specified for the MDSLOG parameter on the SETPARAM statement.

This value may be specified as a JES3 destination class or as an MVS routing code. If a routing code is used, specify a decimal number from 1 through 28, or 41 through 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

ON|OFF

ON and OFF specify whether the device is to be online or offline (as an execution device) to JES3 and to MVS when it is initialized. Specifying OFF does not affect the MVS online or offline status of devices defined to MVS as permanently resident.

Note: The XTYPE parameter must precede the XUNIT parameter if you specify both. Do not specify the XUNIT parameter for a SNA-attached AFP printer.

Examples

Example 1: In the following example, a JES3 3211 printer, PR2, is defined on the global processor, SY2.

```
DEVICE,DTYPE=PRT3211,JNAME=PR2,JUNIT=(004,SY2),XTYPE=(PRT,UR),
XUNIT=(004,SY2,,OFF)
```

Example 2: In the following examples, both 1403 and 3211 printers are defined when the SY2 processor is eligible to be the global processor.

```
DEVICE,DTYPE=PRT1403,JNAME=PR1,JUNIT=(00E,SY1,UR,,10E,SY2,UR),
XTYPE=(PRT,UR),XUNIT=(00E,SY1,,OFF,10E,SY2,,OFF)

DEVICE,DTYPE=PRT3211,JNAME=PR2,
JUNIT=(004,SY1,UR,ON,104,SY2,UR,OFF),
XTYPE=(PRT,UR),XUNIT=(004,SY1,,OFF,104,SY2,,OFF)
```

Example 3: In the following example, a 3211 printer, PR3, is defined in a special device group. It may also be used by jobs in execution on SY1.

```
DEVICE,DTYPE=PRT3211,DGROUP=UPSTAIRS,JNAME=PR3,
JUNIT=(00F,SY1,D1,ON),XTYPE=(PRNTR,UR),XUNIT=(00F,SY1,S10,OFF)
```

Example 4: In the following example, a 9-track tape is shared between a global processor, SY1, and a local processor. It is initially offline to JES3 and to the SY2 local processor. The console message class for JES3 on the global processor is S7, for the global processor it is S9, and for the SY2 local processor it is S6. The default group name (DGROUP) of LOCAL is assumed.

```
DEVICE,DTYPE=TA92400,JNAME=T90,JUNIT=(180,SY1,S7,OFF),
XTYPE=(TAPE9,TA),XUNIT=(180,SY1,S9,,280,SY2,S6,OFF)
```

Example 5: In the following example, a direct-access device is shared between two processors SY1 and SY2. It is to be available for volume mounting required by jobs (RM specified in the XTYPE parameter).

```
DEVICE,XTYPE=(DISK,DA,RM),XUNIT=(130,SY1,S4,,230,SY2,S5)
```

Example 6: In the following example, a channel attached AFP printer is defined as shared among 3 processors, SY1 through SY3. The printer is initially offline to all 3 processors. The printer will run in FSS mode under the control of an output writer FSS named WTRFSS1.

```
DEVICE,DTYPE=PRTAFP1,JNAME=PRT803,
JUNIT=(803,SY1,S1,OFF,803,SY2,S2,OFF,803,SY3,S3,OFF),
XTYPE=(AFP1,UR),
XUNIT=(803,SY1,S1,OFF,803,SY2,S2,OFF,803,SY3,S3,OFF),HEADER=NO,
CHARS=(YES,STANDARD),FLASH=(YES,STANDARD),STACKER=(YES,STANDARD),
BURST=(YES),FSSNAME=WTRFSS1,MODE=FSS,PM=PAGE,PAGELIM=3+,LINELIM=0+,
NPRO=150
```

Example 7: In the following example, a SNA-attached AFP printer is connected through VTAM to SY1. The printer must run in FSS mode (which is explicitly coded) and is under the control of an output writer FSS named WTRFSS2. Both *page* and *line* mode data can be routed to this device.

```
DEVICE DTYPE=PRTAFP1,JNAME=PRTABC1,JUNIT=(,SY1,S1,OFF),MODE=FSS,
WS=(D),DGROUP=TESTGRP,PM=(LINE,PAGE),FSSNAME=WTRFSS2
```

Example 8: In the following example, five SNA-attached AFP printers are defined as shared among 3 processors, SY1 through SY3. The printers have the JES3 names PRT0803, PRT0804, PRT0805, PRT0806, and PRT0807. The printers will be defined as initially offline to all three processors. The printers will run in FSS mode under the control of an output writer FSS, named WTRFSS1.

```
DEVICE,DTYPE=PRTAFP1,JNAME=PRT,
JUNIT=(803,SY1,S1,OFF,803,SY2,S2,OFF,803,SY3,S3,OFF),
XTYPE=(AFP1,UR),
XUNIT=(803,SY1,S1,OFF,803,SY2,S2,OFF,803,SY3,S3,OFF),HEADER=NO,
CHARS=(YES,STANDARD),FLASH=(YES,STANDARD),STACKER=(YES,STANDARD),
BURST=(YES,FSSNAME=WTRFSS1,MODE=FSS,PM=PAGE,PAGELIM=3+,LINELIM=0+,
NPRO=150,NUMDEV=5
```

Example 9: This is example 8 simplified. The message destination is the same for all processors.

```
DEVICE,DTYPE=PRTAFP1,JNAME=PRT,
JUNIT=(803,*ALL,S1,OFF),
XTYPE=(AFP1,UR),
XUNIT=(803,*ALL,S1,OFF),HEADER=NO,
CHARS=(YES,STANDARD),FLASH=(YES,STANDARD),STACKER=(YES,STANDARD),
BURST=(YES),FSSNAME=WTRFSS1,MODE=FSS,PM=PAGE,PAGELIM=3+,LINELIM=0+,
NPRO=150,NUMDEV=5
```

Example 10: In the following example, 300 9–track tapes are shared between a global processor, SY1, and a local processor. Thay are initially offline to JES3 and to the SY2 local processor. The console message class for JES3 on the global processor is S7, for the global processor it is S9, and for the SY2 local processor it is S6. The default group name (DGROUP) of LOCAL is assumed. The JNAMEs for the tapes are T900180 through T9002AB.

```
DEVICE,DTYPE=TA92400,JNAME=T90,JUNIT=(180,*ALL,S7,OFF),
XTYPE=(TAPE9,TA),XUNIT=(180,*ALL,S9,OFF),NUMDEV=300
```

Example 11: In the following example, 300 9–track tapes are shared between SY1 and SY2 and can be used as JES3 global devices when SY1 is global. They are initially offline to JES3 and to all processors. The console message class for JES3 on the global processor is S7, and for all processors it is S9. The default group name (DGROUP) of LOCAL is assumed. The JNAMEs for the tapes are T900180 through T9002AB.

```
DEVICE,DTYPE=TA92400,JNAME=T90,JUNIT=(180,SY1,S7,OFF),
XTYPE=(TAPE9,TA),XUNIT=(180,SY1,S9,,280,SY2,S6,OFF),NUMDEV=300
```

Example 12: In the following example, 4715 direct-access devices are shared between all processors in the complex. They take device numbers from 130 through 139A. They are permanently resident.

```
DEVICE,XTYPE=(DISK,DA,PR),XUNIT=(130,*ALL,S4,ON),NUMDEV=4715
```

DYNALDSN (Dynamically Allocated Data Set Integrity)

Use the DYNALDSN statement to specify which data sets on permanently resident or reserved DASD volumes require data set integrity protection when the data set is dynamically allocated.

Statement Summary

Table 29. DYNALDSN Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	DYNALDSN,PROTECT=(*)
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.

Table 29. DYNALDSN Summary (continued)

Variable	Value
Coding Considerations	Two special characters (? and *) can be used in the dsn subparameter:
	* Indicates that the remainder of the data set name to the right of the asterisk is ignored. All data set names that match up to the * are protected or bypassed as specified.
	? Indicates that the remainder of the current qualifier to the right of the question mark is ignored. Qualifiers are separated by a period (.), by the beginning of a data set name, or by the end of the data set name. For example, in the data set name ABC.D.EFGH, the qualifiers are 'ABC', 'D', and 'EFGH'.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

Parameters

PROTECT=
Specifies that you want full MDS data set integrity protection for the named data sets.

BYPASS=
Specifies that you do not want data set integrity protection for the named data sets.

Examples

(1) If ABC.D.EFGH is specified in the PROTECT or BYPASS parameter, the matching dsn must be ABC.D.EFGH.

(2) If AB* is specified, the matching dsn must be any data set whose name begins with AB.

(3) If A?.D.EFGH is specified, the matching dsn must be a data set name with 3 qualifiers. The name must begin with A. The second qualifier must be D and the third qualifier must be EFGH.

(4) If ?.?.? is specified, then any data set name with three qualifiers is a matching dsn.

(5) If * is specified, then any data set name is a match.

```
DYNALDSN,BYPASS=(?.?.LIST)
DYNALDSN,PROTECT=(JOES.*,SAMS.*)
DYNALDSN,BYPASS=(?.?.LOAD,?.?.ASSEMBLE)
DYNALDSN,PROTECT=(*)
```

This example causes integrity protection to be bypassed for all data sets (a) which have exactly three qualifiers and whose third qualifier is 'LIST' or (b) whose third qualifier is 'LOAD' or 'ASSEMBLE', except when the first qualifier is 'JOES' or 'SAMS'. Integrity protection is provided for all other data sets.

DYNALLOC (Dynamically Allocate Data Sets and Devices)

Use the DYNALLOC statement to specify a data set or a device that you want dynamically allocated to JES3 during initialization. The DYNALLOC statement allows you to allocate a data set or device without changing the JES3 cataloged procedure.

Note: Converter/Interpreter functional subsystems (C/I FSS) and the PROCLIB update function will obtain unit and volume information for the procedure libraries from the catalog. For these functions, JES3 ignores unit and volume information that you specify in the JES3 start-up procedure or on a DYNALLOC initialization statement.

Statement Summary

Table 30. DYNALLOC Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	DYNALLOC statements, if used, must be placed first in the JES3 initialization stream.

DYNALLOC

Table 30. DYNALLOC Summary (continued)

Variable	Value

Coding Considerations	1. The DYNALLOC statement must begin in column 1; it *cannot* be continued, nor can comments be embedded.
	2. All parameters pertaining to a DYNALLOC statement must be defined on one statement; continuation statements are not permitted.
	3. The maximum number of DYNALLOC initialization statements is 1635 minus the number of DD statements in the JES3 start procedure.
	4. If a dynamically allocated data set or device is inaccessible to a main in the JES3 complex, operator intervention will be required during JES3 initialization.
	5. You cannot dynamically allocate dummy data sets or data sets defined by the ddnames:
	  • CHKPNT
	  • JES3IN
	  • STEPLIB
	6. The JES3 global processor will dynamically allocate all of the DD's specified on the DYNALLOC statement.
	
	Only a subset of the DD's specified on DYNALLOC statement will be dynamically allocated by the JES3 local processors. The following is a list of the DD's that will be dynamically allocated if they appear on a DYNALLOC statement:
	  • DD's for spool data sets
	  • JES3JCT
	  • JES3OUT
	  • JESABEND
	  • SYSABEND
	  • SYSUDUMP
	
	The following DD's will not be dynamically allocated by the local processors if they appear on a DYNALLOC statement. Note that if a local processor becomes the global processor through a Dynamic System Interchange (DSI), the DD's will be dynamically allocated:
	  • IATPLBxx
	  • PROCxx
	  • JES3DRDS
	  • JES3SNAP
	  • Any user DD's
	7. DYNALLOC statements cannot appear in a member specified using the INCLUDE statement.

Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►──DYNALLOC──,DDN=ddname─────────────────────────────────────────────────────────►
                          └─,DSN=dsname─┘    └─,UNIT=──┬─/devnum─┬──┘
                                  (1)           (2)    ├─devnum──┤
                                                       └─devtype─┘

►─────────────────────────────────────────────────────────────────────────────────►◄
   └─,VOLSER=serial─┘
              (3)
```

Notes:

1   Required for data sets.

2   Required for unit record, graphic, and teleprocessing devices.

3   VOLSER is ignored if the UNIT parameter is not present.

Parameters

DDN=
Specifies the 1- to 8-character ddname associated with this data set or device. Up to 16 input data sets can be concatenated by specifying the same ddname on successive DYNALLOC statements. During the concatenation, JES3 generates temporary ddnames of the form JS3Dxxxx, where xxxx is a 4-digit sequence number. The JS3Dxxxx ddnames cannot be used in the JES3 procedure. If a procedure library data set in a concatenation cannot be found, JES3 removes the data set from the concatenation and issues a message.

Note: You cannot concatenate spool data sets. If your initialization stream contains INCLUDE statements, do not specify DDnames of the formJ3INCLxx on the DYNALLOC statements. These DDnames are used by JES3 to dynamically allocate the data set and member associated with an INCLUDE statement.

If a required resource (such as a dsname, unit, or volume) is unavailable, JES3 will wait for it to become available. If a required unit is offline, the operator will be asked to bring it online. An unavailable ddname is regarded as an error condition and will produce an error message.

DSN=
Required to specify the 1- to 44-character name of a standard label data set. If all other parameters are included and are specified at their maximum lengths, then the dsname is limited to 17 characters including periods and parentheses. Generation data group sets must use actual version and generation numbers.

UNIT=
Specifies the device number (by 3-digit or 4-digit hexadecimal number) for dynamic device allocation. A slash (/) preceding the device number is required when specifying a 4-digit device number to distinguish it from a device type. Device numbers can be specified by any of the following formats:

```
ddd
/ddd
/dddd
```

DYNALLOC

For dynamic data set allocation, specify the 1- to 8-character device type. This parameter is not required for a cataloged data set, but should be included for data sets that are not cataloged.

VOLSER=
Specifies the serial number of the volume that contains the data set. This parameter is not required for a cataloged data set, but should be included for data sets that are not cataloged.

Examples

Example 1: In the following example, a JES3 spool data set, SYS1.SPOOL2, which resides on the 3380 volume SPOOL2, is allocated to JES3:

```
DYNALLOC,DDN=SPOOL2,VOLSER=SPOOL2,UNIT=3380,DSN=SYS1.SPOOL2
```

Example 2: In the following example, an alternate procedure library is defined and two cataloged data sets are concatenated:

```
DYNALLOC,DDN=IATPLB04,DSN=SYS1.PROCLIB
DYNALLOC,DDN=IATPLB04,DSN=SYS2.PROCLIB
```

ENDINISH (End of Initialization Stream)

Use the ENDINISH statement to identify the end of the initialization statements in the initialization stream.

Statement Summary

Table 31. ENDINISH Summary

Variable	Value
Required/Optional Statement	Required
Statement Default	None
Placement in Initialization Stream	This statement must follow all other initialization statements.
Coding Considerations	None
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh.

Syntax

```
▶▶──ENDINISH────────────────────────────────────────────────────────◀◀
```

Parameters

None.

ENDJSAM (End of JES3 I/O Statements)

Use the ENDJSAM initialization statement to indicate the end of the JES3 spool initialization statements.

Statement Summary

Table 32. ENDJSAM Summary

Variable	Value
Required/Optional Statement	Required
Statement Default	None
Placement in Initialization Stream	1. The ENDJSAM statement must immediately follow the last JES3 spool statement. 2. The spool initialization statements, if used, which must precede the ENDJSAM statement are: BADTRACK, BUFFER, FORMAT, TRACK, OPTIONS, and SPART. 3. Any DYNALLOC statements must precede the spool initialization statements.
Coding Considerations	None
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh.

Syntax

```
►►──ENDJSAM──────────────────────────────────────────────►◄
```

Parameters

None.

FORMAT (Format Spool Data Set)

Use the FORMAT statement to specify formatting for a data set residing on a direct-access spool volume during initialization. Specify this statement only when introducing an unformatted volume into a JES3 system or when you change the BUFSIZE parameter on the JES3 BUFFER initialization statement.

Statement summary

Table 33. FORMAT Summary

Variable	Value
Required/Optional Statement	Required
Statement Default	None

Table 33. FORMAT Summary (continued)

Variable	Value
Placement in Initialization Stream	The FORMAT statement must precede the ENDJSAM statement.
Coding Considerations	1. The maximum number of FORMAT statements is 1024. 2. After initialization completes, replace FORMAT statements in the initialization stream with TRACK statements otherwise JES3 issues a warning message each time it encounters a FORMAT statement for a formatted spool data set.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. *MODIFY CONFIG can be used to add, remove or modify spool extents.

Syntax

```
►►─FORMAT─,DDNAME=ddname────────────────────────────────────────────►
                          └─,SPART=partitionname─┘

►─────────────────────────────────────────────────────────────────►◄
  ├─,STT=(cylnum,cylnum)──────┤
  └─,STTL=(cylnum,numtrkgps)──┘
```
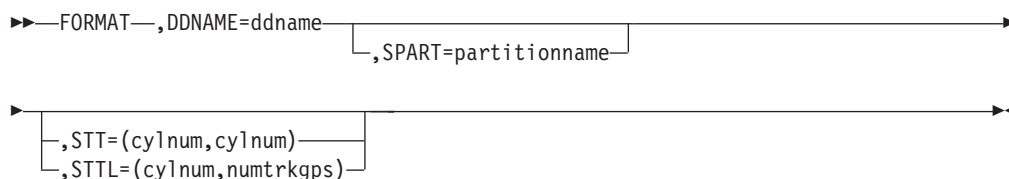
Parameters

DDNAME=
Specifies the ddname of the DD statement or the ddname on a DYNALLOC statement that defines the spool data set you want formatted. The ddname cannot be JES3JCT.

SPART=
Specifies that the spool data set defined by this statement is a member of the named spool partition. The partition name must match a partition name specified on an SPART statement.

To specify that the data set is a member of the default partition, omit this parameter. If you do not specify at least one spool data set as a member of the default spool partition, JES3 terminates its processing during initialization.

STT=
Specifies the range of cylinders you want allocated to the single track table (STT). This range must be within the extent allocated to the data set. The value of *cylnum* specifies an absolute cylinder number. (Absolute cylinder numbers are device-dependent; the component description for the device describes the numbering scheme.)

The range indicated by *(cylnum,cylnum)* can be one cylinder (for example: 24,24) or several cylinders (for example: 24,28) and can be in ascending or

descending order. JES3 allocates to the STT only those track groups that fall completely within the indicated range of cylinders. The value for *cylnum* cannot be 0.

For fixed head devices, allocate cylinders under the fixed heads for better performance. For other devices, allocate cylinders in the center of the data set.

You should consider spool recovery and I/O balance before specifying the STT or STTL parameter. The presence of a single track table on a spool extent can limit the recovery actions that can be taken for that spool extent. To ensure successful recovery in the event of a problem, you should dedicate a spool extent to the STT or specify the STT on the minimum number of spool extents to achieve your I/O balance requirements.

If you omit either the STT or STTL parameter, or you specify an invalid range, JES3 allocates the centermost 2 track groups of each spool data set in the default partition as the initial STT allocation.

Note: If you change this parameter and want the change to go into effect for existing spool data sets, you must perform a cold start.

STTL=

Specifies the location and number of track groups to allocate to the single track table (STT). These track groups must be within the extent allocated to the data set. The value for *cylnum* specifies an absolute cylinder number indicating the beginning cylinder number of the STT allocation in this extent. (Absolute cylinder numbers are device-dependent; the component description for the device describes the numbering scheme.) The value for *numtrkgps* specifies the number of track groups to allocate to this extent, beginning with the first track group that is located completely in cylinder *cylnum*. The maximum number of track groups that may be allocated to the STT is 9999.

For fixed head devices, allocate cylinders under the fixed heads for better performance. For other devices, allocate cylinders in the center of the data set.

You should consider spool recovery and I/O balance before specifying the STT or STTL parameter. The presence of a single track table on a spool extent can limit the recovery actions that can be taken for that spool extent. To ensure successful recovery in the event of a problem, you should dedicate a spool extent to the STT or specify the STT on the minimum number of spool extents to achieve your I/O balance requirements.

If you omit either the STT or STTL parameter, or you specify an invalid range, JES3 allocates the centermost 2 track groups of each spool data set in the default partition as the initial STT allocation.

Note: If you change this parameter and want the change to go into effect for existing spool data sets, you must perform a cold start.

Example

In the following example, the direct-access spool volume defined by the ddname SPOOL1 is formatted and assigned membership in spool partition PART1. Cylinders 30 and 31 are allocated to the STT.

```
FORMAT,DDNAME=SPOOL1,STT=(30,31),SPART=PART1
```

The corresponding DD statement in the JES3 start procedure is:

```
//SPOOL1 DD DSN=JES3.QUES2,DISP=OLD,UNIT=SYSDA,      X
//        VOL=SER=MVSRW1
```

FSSDEF (Functional Subsystem Definition)

Use the FSSDEF statement to define the characteristics of a functional subsystem (FSS) which operates in its own address space. Use a FSSDEF statement for either of the following:

- To define one or more C/I FSSs.
- To define one or more output writer FSSs for printers that you define to run in FSS mode (through the DEVICE initialization statement). You can define more than one printer to run under the control of a single output writer FSS. If you do not define an output writer FSS for each printer that requires one, JES3 creates an FSS using default values.

For guidelines on how to choose values for the FSSDEF statement parameters, see "Configuring C/I Processing" in *z/OS JES3 Initialization and Tuning Guide* and C/I FSSs and "Defining an Output Writer FSS" in *z/OS JES3 Initialization and Tuning Guide*.

Statement Summary

Table 34. FSSDEF Summary

Variable	Value
Required/Optional Statement	Optional

Statement Default	None. However, JES3 used the following default if no FSSDEF statement exists when MODE=FSS is specified on a DEVICE statement for an FSS-supported printer:
	
	`FSSDEF,TYPE=WTR,FSSNAME=(see note1),`
	`SYSTEM=(see note2),`
	`PNAME=(see note3),MSGDEST=42,TERM=NO`
	
	Note:
	
	1. JES3 uses the name specified on the FSSNAME parameter of the DEVICE statement (if it is coded) or uses the JNAME defined for the device (if the FSSNAME parameter on the DEVICE statement is omitted). If the DEVICE statement specifies the NUMDEV parameter, the JNAME defined for the DEVICE is the JNAME prefix specified on the DEVICE statement combined with the JUNIT determined from the device range, left padded with a zero to a four digit device if the device contains three digits.
	
	2. See the parameter description to determine the default value used for the SYSTEM parameter.
	
	3. See the parameter description to determine the default value used for the PNAME parameter.
	
	4. The default for MSGDEST (routing code 42) is equivalent to JES3 Dest Class JES.

Placement in Initialization Stream	This statement can be placed in any order following the ENDJSAM statement.
Coding Considerations	None
Security Usage	None
Performance Considerations	None

Table 34. FSSDEF Summary (continued)

Variable	Value
Initialization Stream Overrides	None

Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters.
	
	• The following must be considered when a hot start with refresh is going to be performed:
	
	  1. You cannot delete an FSSDEF statement for an FSS if the FSS is active. The exception is if the FSS is active on the global and the global was IPLed before performing the hot start with refresh.
	
	  2. If you make changes to an FSSDEF statement for an FSS that is active, JES3 ignores the changes and uses the checkpointed information from when the FSS was started. The exception is if the FSS is active on the global processor and the global was IPLed before performing the hot start with refresh, then your change takes place.
	
	  3. The SYSTEM parameter has a dependency on the NAME parameter of the MAINPROC statement. During a hot start with refresh, JES3 does not process the MAINPROC statements, but uses the MAINPROC's from the last warm or cold start. If you add a MAINPROC statement during a hot start with refresh, JES3 ignores it and issues error messages if the SYSTEM parameter of the FSSDEF statement references the MAINPROC statement that you attempted to add during a hot start with refresh.
	
	• If a writer FSS for a non-VTAM attached printer is not already defined by a DEVICE statement in the initialization stream, you cannot add an FSSDEF statement for the FSS writer.
	
	• Use the `*MODIFY,F` command to change the DSPCNT, MAXASST, START, TERM, SYSTEM, and PNAME parameters.
	
	• Use the `*MODIFY,CONFIG` command to add FSS definitions for non-channel attached FSS managed printers.
	
	• Use the `*MODIFY,T` or `*MODIFY,W...` commands to dynamically modify FSS writers.
	
	• Use FSSDEF with TERM=YES option after an orderly shutdown of JES3. This will incorporate the changes you make in the DYNALLOC, HWSNAME, CIPARM, RESDSN, and SYSOUT initialization statements. Restarting JES3 will establish the new changes.

Syntax

```
                    ,TYPE=WTR
►►─FSSDEF─┬──────────────┬──,FSSNAME=fssname──────────────────────────────►
          └─,TYPE=CI─────┘
                                                    ┌─42──────┐
                                          └─,MSGDEST=┼─msgdest─┤
                                                     ├─JES─────┤
                                                     └─nnn─────┘
```

```
►──┬─────────────────┬──┬─,SYSTEM=─┬─sysname──────┬──┬──────────────┬──►
   └─,PNAME=procname─┘  │         └─ System Names ┘  │         ┌─NO─┐ │
                        └──────────────────────────── └─,TERM=─┴─YES┘─┘

►──┤ Valid Only for C/I FSSs ├─────────────────────────────────────────►◄
```

Valid Only for C/I FSSs:

```
├──┬──────────────┬──┬─────────(2,1)──────────────┬──────────────►
   │      ┌─YES─┐  │  │        ─maxbatch─          │
   └─,START=─┴─NO──┘  └─,DSPCNT=─                   │
                      (──┬──────────┬──┬─────────────┬──)
                         └─maxbatch─┘  └─,maxdemsel─┘

►──┬──────────────────────┬────────────────────────────────────────┤
   │          ┌─0────────┐ │
   └─,MAXASST=┴─nnnnnnnn─┘─┘
```

System Names:

```
├──(──sysname1,sysname2──┬────────────────────────┬──)──────────────────┤
                         │  ◄──────────────────┐   │
                         └──,sysnamex,sysnamey──┘
```
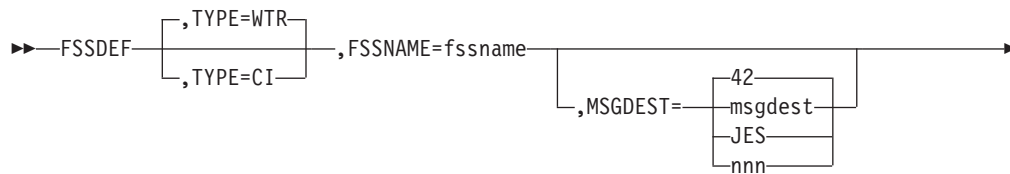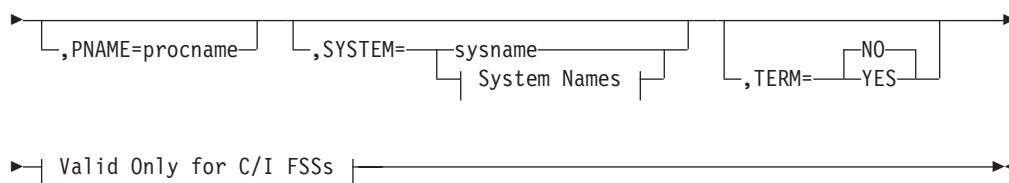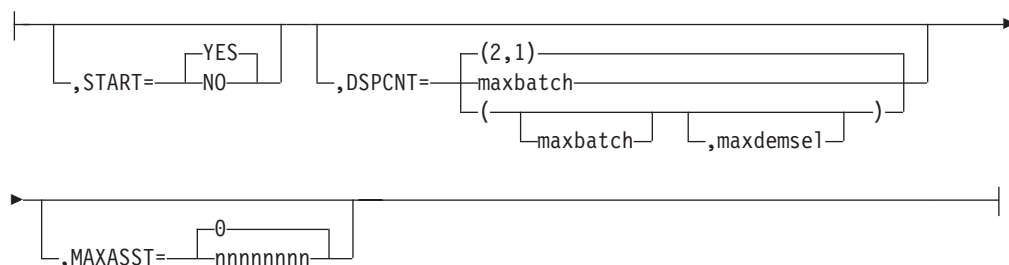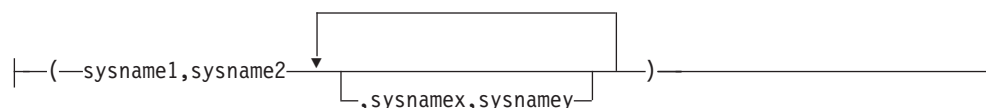
Parameters

TYPE=
Specifies the type of FSS you are defining.

> **WTR**
> Specifies that an output writer FSS is being defined.
>
> **CI** Specifies that a JES3 converter/interpreter (C/I) FSS is being defined. If SMS is active on the global, JES3 will not start a local C/I FSS unless SMS is also active on the main where the FSS is defined.

FSSNAME=
Specifies the installation-defined name of the FSS. The first character of the name must be an alphabetic character; the remaining characters must be alphameric or national characters. The name may be 1 to 8 characters. To define more than one device to run under an output writer FSS, specify this name on the FSSNAME parameter of each printer's DEVICE initialization statement.

MSGDEST=
Specifies the routing information for messages concerning this output writer FSS. This value may be specified as a JES3 destination class or as an MVS routing code.

If a routing code is used, nnn specifies a decimal number from 1 through 28, or 41 through 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

The default of routing code 42 is the routing code equivalent of JES3 Dest Class JES.

This parameter also applies to messages that originate from a CI/FSS address space, unless the installation instructs JES3 not to override the destination class for CI/FSS messages. See the CIFSS=MSGROUTE parameter on the CONSTD statement for more information. Do not specify ALL or MLG as values for this parameter. You can modify this value during system operation using the `*MODIFY,F,FSS=` command; however, any changes to this value do not take effect until the next time the FSS is started.

If you specify an invalid subparameter, JES3 uses the parameter default.

PNAME=
Specifies a member of the procedure library for started task jobs, which contains a cataloged procedure for starting the FSS. The member must be in the procedure library defined by the STCPROC parameter of the STANDARDS statement, or in procedure library IATPLBST, if the STCPROC parameter is omitted.

Parameter default: For a C/I FSS, the default member name is JES3CI. For an output writer FSS, see *Print Services Facility/MVS System Programmer's Guide* for the default member names of the start-up procedures for PSF/MVS driven printers.

SYSTEM=
Specifies the JES3 main on which the FSS is to operate. The names must be the same as specified on the NAME parameter of the MAINPROC statement for the main.

If you specify pairs of mains (the (sysname1,sysname2) form), the first main name specifies a potential global. The second main name specifies the main on which the FSS is to operate when the first main is actually the global. If a dynamic system interchange (DSI) occurs, the FSS will be relocated according to the specifications of this parameter the next time the FSS is started. If the actual global is not the main specified by the first main name in any pair, the FSS is not eligible to run.

For example, suppose this parameter specifies SYSTEM=(SY1,SY2,SY2,SY3). When JES3 or the operator starts the FSS, the global is SY1 and JES3 establishes the FSS address space on SY2. Later, a DSI takes place and SY2 becomes the global. The FSS address space continues running on SY2 until, for whatever reason, the FSS terminates. When JES3 or the operator restarts the FSS, JES3 establishes the FSS address space on SY3.

You must specify either a single system name or the system names must be paired. Otherwise, the one or more default values will be used. You can specify up to 8 pairs of system names.

Parameter default:

For a C/I FSS, the default value is the name of the global.

For an output writer FSS, JES3 finds the first printer defined in the initialization stream which is assigned to this FSS. If that printer is defined as attached to only one main, that main is the default. If the printer is defined as attached to more than one main including the global, the global is the default. Otherwise, the default is the main specified on the first MAINPROC statement in the initialization stream to which the printer is defined as attached.

TERM=
Specifies whether the FSS terminates if the JES3 global address space terminates.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: If you specify TERM=YES, and bring JES3 down during a minimal spool condition, the FSS address space termination will not take effect. You should therefore exercise care when restarting JES3 during a minimal spool condition.

START=
Specifies whether JES3 should start the FSS automatically when the main on which the FSS is to run is connected to the global. This parameter applies only to C/I FSSs. If specified for an output writer FSS, this parameter is ignored.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: If a C/I FSS terminates for reasons other than the reason identified by the TERM= parameter (that is, terminating JES3 because of a *RETURN command), JES3 changes the START= setting for that C/I FSS to START=NO. START=NO indicates that if JES3 is subsequently hot started, the FSS is not automatically started. In this way, JES3 protects itself from restarting a C/I FSS that previously terminated for reasons beyond JES3's control. You need to issue the *F F FSS=fssname,ST=Y command to start the FSS again.

DSPCNT=
Specifies the maximum number of CI DSPs that can operate in the C/I FSS address space at any time. The first subparameter (*maxbatch*) specifies the maximum number of CI DSPs that process batch jobs. The second subparameter (*maxdemsel*) specifies the maximum number of CI DSPs that process demand select jobs (that is, started tasks and TSO LOGONs).

The sum of the two subparameters cannot exceed 256. CI DSPs defined to process batch jobs cannot be used to process demand select jobs, and vice versa. This parameter applies only to C/I FSSs. If specified for an output writer FSS, this parameter is ignored.

If you specify an invalid subparameter, JES3 uses the parameter default.

MAXASST=
Specifies the maximum number of JCL statements that can be processed concurrently by all CI DSPs in the C/I FSS address space. The value must be an integer between 0 and 99999999, inclusive. A value of 0 means no JCL statement limit applies; JES3 does not check how many JCL statements are being processed. For guidelines on choosing a value for this parameter, see *z/OS JES3 Initialization and Tuning Guide*.

This parameter applies only to C/I FSSs. If specified for an output writer FSS, this parameter is ignored.

If you specify an invalid subparameter, JES3 uses the parameter default.

Examples

Example 1: The following example defines a C/I FSS named CIFSS1 that runs on processor SY3 when processor SY1 is the JES3 global processor. The maximum number of batch CI DSPs that can operate in the C/I FSS address space at any one time is 4, while the maximum number of demand select CI DSPs is 5. The C/I FSS will not be started automatically by JES3, nor will it terminate if the JES3 address space terminates.

```
FSSDEF,TYPE=CI,FSSNAME=CIFSS1,SYSTEM=(SY1,SY3),
DSPCNT=(4,5),START=NO,TERM=NO
```

Example 2: The following example defines an output writer FSS named WTRFSS1 that runs on processor SY1. The procedure in the procedure library for starting the

output writer FSS has a member name of WTR3800. The output writer FSS will terminate if the JES3 address space terminates.

```
FSSDEF,TYPE=WTR,FSSNAME=WTRFSS1,SYSTEM=SY1,PNAME=WTR3800,
TERM=YES
```

Example 3: The following example defines three AFP channel-attached printers that operate under the control of the same output writer FSS (FSSPRT2). The DYNAMIC=YES specification on the PRTAFP3 allows JES3 to dynamically start that printer.

The output writer FSS runs on processor SY1. Messages concerning this FSS will be displayed at consoles defined to receive routing code 42 which is the routing code equivalent of message destination class JES. The procedure in the procedure library for starting the output writer FSS has a member name of MULTIPRT. If you enter a *RETURN command, invoke DSI or if the JES3 global is automatically restarted, the output writer FSS terminates with JES3.

Consoles defined to receive routing code 97 (the routing code equivalent of message destination class S1) display messages that JES3 issues on behalf of printers PRT701, PRT801 and PRT901. Only a JES3 *CALL, *START, or *RESTART,WTR operator command can start these printers.

```
FSSDEF,TYPE=WTR,FSSNAME=FSSPRT2,MSGDEST=JES,
PNAME=MULTIPRT,SYSTEM=SY1,TERM=YES

DEVICE,DTYPE=PRTAFP1,JNAME=PRT701,MODE=FSS,
FSSNAME=FSSPRT2,JUNIT=(,SY1,S1,ON)

DEVICE,DTYPE=PRTAFP1,JNAME=PRT801,MODE=FSS,
FSSNAME=FSSPRT2,JUNIT=(,SY1,S1,ON)

DEVICE,DTYPE=PRTAFP1,JNAME=PRT901,MODE=FSS,
FSSNAME=FSSPRT2,JUNIT=(901,SY1,S1,ON),
XUNIT=(901,SY1,S1,ON),XTYPE=(PRTAFP1,UR),
DYNAMIC=YES
```

Example 4: The following example defines three channel-attached AFP1 printers called PRT0509, PRT050A, and PRT050B that operate under the control of the same output writer FSS (FSSPRT3).

```
FSSDEF,TYPE=WTR,FSSNAME=FSSPRT3,MSGDEST=JES,
PNAME=MULTIPRT,TERM=YES DEVICE,DTYPE=PRTAFP1,JNAME=PRT,MODE=FSS,
FSSNAME=FSSPRT3,JUNIT=(509,*ALL,S1,ON),
XUNIT=(509,*ALL,S1,ON),XTYPE=(PRTAFP1,UR),
DYNAMIC=YES,NUMDEV=3
```

Example 5: The following example defines 3 channel-attached AFP1 printers called PRT0609, PRT060A, and PRT060B that each operate under the control of their own output writer FSS address spaces (also called PRT0609, PRT060A, and PRT060B).

```
DEVICE,DTYPE=PRTAFP1,JNAME=PRT,MODE=FSS,
JUNIT=(609,*ALL,S1,ON),
XUNIT=(609,*ALL,S1,ON),XTYPE=(PRTAFP1,UR),
DYNAMIC=YES,NUMDEV=3
```

GROUP (Job-Class Group Definition)

Use the GROUP initialization statement to define the characteristics of a JES3 job-class group and whether the initiators managed by this group are WLM managed or JES3 managed. A GROUP statement must define each job class group (except for the default group, JS3BATCH) named on a CLASS initialization statement.

Statement Summary

Table 35. GROUP Summary

Variable	Value
Required/Optional Statement	Optional

Statement Default	`GROUP, NAME=JS3BATCH,MODE=JES,`
	`BAR=16,JSPAN=ALL,`
	`EXRESC=(*ALL,2,,DEMAND,DEMAND)`

Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	• You can define a maximum of 255 groups. • When specifying EXRESC with MODE=WLM, the initiator count option, the initiator allocation option, and the initiator unallocation option are stored but ignored by JES3. • BAR, which specifies a job priority barrier is stored but ignored by JES3 when MODE=WLM. • JSPAN, as specified is stored, but ignored by JES3 when MODE=WLM. • When the initial MODE=WLM setting is changed to MODE=JES, the stored values for EXRESC, BAR, and JSPAN will be used. This allows the installation to define a group as WLM managed for testing purposes, but still keep the initiator related information in case a switch to JES mode is required. • You can define a group using the GROUP initialization without specifying any job classes.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification (Part 1 of 2)	Cold start, warm start, or hot start with refresh for all parameters. The following should be considered when performing a hot start with refresh: • Do not delete a GROUP statement or delete a EXRESC from a GROUP statement that has active initiators unless you IPL the processor(s) where the initiators are running before the hot start with refresh. • Device fences that were active before the hot start with refresh will be reallocated unless the definition of the device fence in the EXRESC or DEVPOOL parameters was changed. If the device fence definitions was changed, the fence will be reallocated after JES3 initialization completes. • Initiator options (initiator count, allocation option, and unallocation option) are ignored if you specify MODE=WLM on the GROUP statement. If you switch from WLM mode to JES mode using the `*MODIFY,G` command, the initiator options specified on the GROUP statement will then be in effect.

Table 35. GROUP Summary (continued)

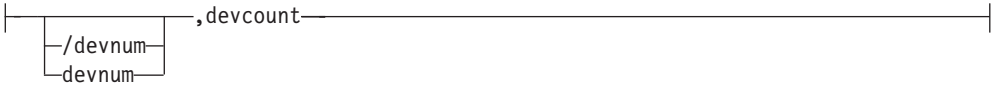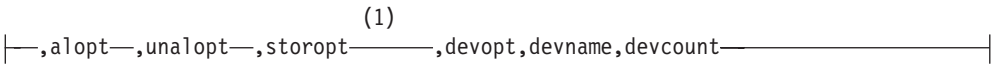| Variable	Value
Restart or Command Modification (Part 2 of 2)	JES3 failures may occur after JES3 is initialized if a GROUP is deleted and jobs reference this GROUP. Use the *MODIFY,G command to change: • The on/off status of a group • The initiator counts, allocation option, and unallocation option of the EXRESC parameters. • The BAR and JSPAN parameters. • The MODE parameter.

Syntax

```
►►─GROUP─,NAME=groupname─────────────────┬ EXRESC ├───────────────────►
                           │      ┌─JES─┐ │
                           └,MODE=┼─WLM─┘
```

```
►──────┬──────────┬──┬─────────┬──┬ DEVPOOL ├──┬──────────────┬──►◄
       │      ┌16─┐│  └,DEF=YES─┘              │      ┌─ALL──┐ │
       └,BAR=─┼PRTY┤                           └,JSPAN=┴─nnnnn┘
              └nn──┘
```

EXRESC:

```
                                        (1)
├──,EXRESC=─(──┬─procname─┬──,initcnt─,storsize──┤ exopts ├──)────┤
              └─*ALL─────┘
```

DEVPOOL:

```
├──,DEVPOOL=─(──devopt,devname,devcount──,─┤ devnum ├──┤ options ├──────┤
```

options:

```
   ┌◄──────────────────────┐
├──┴─┬────────────────────┬┴──┤ devnum ├──────────────────────────┤
     └─,devname,devcount──┘
```

devnum:

```
├──┬──────────┬──,devcount──────────────────────────────────────┤
   ├─/devnum──┤
   └─devnum───┘
```

exopts:

```
                              (1)
├──,alopt──,unalopt──,storopt────,devopt,devname,devcount─────────┤
```
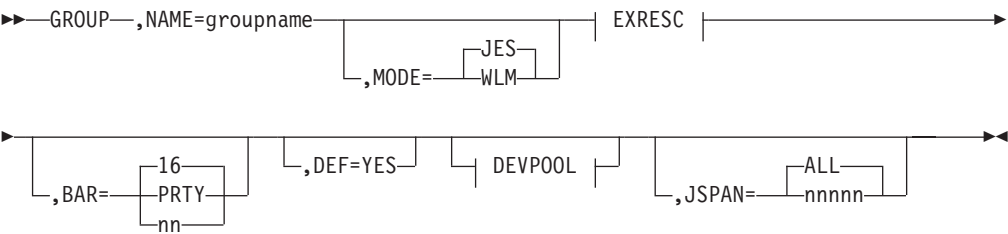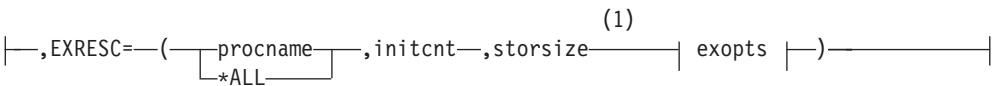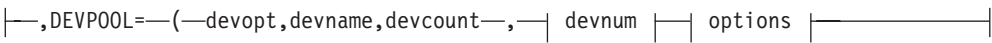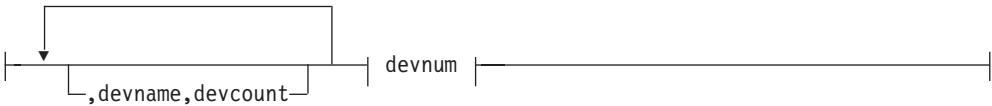
Notes:

1   The positional subparameters storsize and storopt are no longer supported. They have been retained so that initialization streams will not have to be changed.

Parameters

NAME=
Specifies the 1- to 8-character name of a job class group. A job class is assigned to this job-class group by placing this group name on its CLASS statement. The NAME parameter must be the first parameter on the GROUP statement. The first character of this name must be alphabetic (MVS restriction).

MODE=
Specifies whether the initiators managed by this group are WLM managed or JES3 managed.

WLM
Specifies that jobs in this job class group are to run under Workload Management initiators, that is, WLM-managed initiators.

JES
Specifies that jobs in this job class group are to run under JES3-managed initiators.

See *z/OS JES3 Initialization and Tuning Guide* for details on WLM-managed and JES3-managed initiators.

EXRESC=
Defines the execution resources, such as initiators, processors, and devices, which you want assigned to this job class group. Jobs in this group use devices assigned to the group to satisfy requests for mountable volumes. An EXRESC parameter must be specified for each main on which this group may be scheduled.

The EXRESC parameter must still be specified even if MODE=WLM, because JES3 still needs to know which system's jobs in this group are allowed to execute. If a particular system name does not appear in the EXRESC parameter, jobs in that group will not be allowed to run on that system.

*ALL
Identifies that you want the parameters that you are specifying to apply to all systems in the JESPLEX. By specifying *ALL, instead of listing the individual systems, you make it easier to add a system to your JESPLEX. In this case, you do not have to update your GROUP initialization statements when you add a MAINPROC statement.

procname
Identifies the main associated with the execution resources. The main name must match the NAME parameter on a MAINPROC statement.

If *ALL is specified as the main name, the parameters that you specify are applied to all main processors defined through MAINPROC initialization statements. By specifying *ALL instead of listing the individual systems, you make it easier to add a system to your SYSPLEX. For example, if you add a new MAINPROC statement for system SYXYZ, and you specify *ALL in the EXRESC parameters of your GROUP statements, the new system will automatically be included in each of the group definitions.

You cannot specify *ALL and then list specific system names, and vice versa.

initcnt

The initcnt value indicates the dedicated initiator count. This subparameter defines the number of initiators you want assigned exclusively to this group. When scheduling jobs from this group, only the dedicated initiators will be used; therefore, this count defines the maximum number of jobs of this group that can be concurrently scheduled to the specified main. Dedicated initiators that become idle will not be used for scheduling any other job class group. The value of initcnt must be less than the value of the MAXUSER parameter in the IEASYSxx member of SYS1.PARMLIB that will be used for the IPL. The MAXUSER parameter is discussed in *z/OS MVS Initialization and Tuning Reference*. The initiator identifier is the same as the group name. Each initiator started for MVS processors is identified by the GROUP name. For example, if the dedicated initiator count for GROUP=ABC is 2, then two initiators would be started with identifier ABC. The dedicated initiator count for the default group JS3BATCH is 2. The initnum count parameter on the SELECT initialization statement overrides the initcnt parameter. See "Parameters" on page 183 for additional information.

Note: The initiator count is not used when you specify MODE=WLM. If you switch to MODE=JES by using the `*MODIFY,G` command, the value that you specified for the initiator count is used.

storsize

JES3 no longer supports this subparameter. It has been retained so that initialization streams will not have to be changed. If you plan to code any of the following positional subparameters, code a comma (,) to represent this subparameter.

alopt

Determines when the execution resources are to be allocated to the group. Four options are available: DEMAND, DYNAMIC, IPL, or MANUAL.

DEMAND indicates that initiators are to be allocated to satisfy the requirements of selectable jobs in this group up to the number specified by initcnt. DEMAND is the default allocation option.

DYNAMIC indicates that the named execution resources are to be allocated when the first job of this class is eligible for scheduling on a main.

IPL indicates that the execution resources are to be allocated whenever IPL occurs on the main associated with this group. If subsequent reallocation is necessary, it must be done manually.

MANUAL specifies that the execution resources are to be allocated whenever the operator enters the command *F,G,main,G,grp,ON to turn on the group.

The default allocation option is DEMAND. See "Parameters" on page 183 for additional information.

Note: The initiator allocation option is not used when you specify MODE=WLM on the GROUP initialization statement. If you switch to MODE=JES by using the `*MODIFY,G` command, the value you specified for the initiator allocation option is used.

unalopt

Determines when the execution resources are to be released from the group. Three options are available: DEMAND, DYNAMIC, or MANUAL.

DEMAND indicates that the initiators are to be deallocated when the number of selectable jobs for this group is less than the number of allocated initiators minus the number of initiators that are currently active. DEMAND is the default deallocation option.

DYNAMIC indicates that all execution resources are to be released when no selectable jobs exist for this group.

MANUAL indicates that all execution resources are not to be released until the operator disables the job class group by issuing the `*F,G,main,G,grp,OFF` command. MANUAL is the deallocation option for the default group JS3BATCH.

For all groups except the defaulted groupname JS3BATCH, the default deallocation option is DEMAND. "SELECT (Job Selection Mode)" on page 181 further explains how JS3BATCH becomes the defaulted groupname.

Note: The initiator unallocation option is not used when you specify MODE=WLM. If you switch to MODE=JES by using the `*MODIFY,G` command, the value you specified for the initiator unallocation option is used.

storopt
JES3 no longer supports this subparameter. It has been retained so that initialization streams will not have to be changed. If you plan to code any of the following positional subparameters, code a comma (,) to represent this subparameter.

devopt
Indicates those devices on the specific main (procname) which are dedicated for use by jobs in this group for volume mounting (this is device fencing). This parameter specifies how the devices in this device fence can be allocated. The options are ANY and GROUP.

ANY specifies that jobs are to be able to allocate any devices that are accessible from the main. Note that allocation will attempt to get dedicated (fenced) devices before using devices outside the fence.

GROUP indicates that jobs in this group may allocate requests requiring volume mounting only from devices dedicated to the group on the main. This allows device fencing exclusively because no nondedicated devices are to be used for volume mounting. GROUP is the default device allocation option.

devname,devcount ,devname,devcount
Identifies the device(s) to be dedicated. The subparameters may be repeated, in pairs as is necessary.

devname
Indicates the unit address of the device or the name of the device as specified in the NAMES parameter on the SETNAME statement. The *devname* subparameter should have *devcount* immediately following it.

devcount
Specifies how many of the indicated devices are to be dedicated; If a device number is specified for *devname*, the associated *devcount* specified must be 1.

/devnum or devnum
Specifies the device number (by 3-digit or 4-digit number). A slash (/) preceding the device number is not required. Device numbers can be specified by any of the following formats:

```
ddd
dddd
/ddd
/dddd
```

ddd and dddd represent the device numbers.

If devices are dedicated to a group on a main using the EXRESC parameter, the DEVPOOL parameter cannot be used. (Specification of dedicated devices in the EXRESC parameter allows device fencing for groups by main.)

BAR=
Specifies a job priority barrier. All jobs in this group that have a priority equal to or above this barrier must be scheduled before any attempt is made to schedule jobs below this barrier.

PRTY
Specifies that each priority level is to be treated as a barrier. Each job in a priority level must be scheduled before any job in any lower priority will be scheduled.

nn Specifies a job priority number from 0 to 15.

16 No barrier is imposed on jobs in this group.

Note: When a value other than 16 is specified, the operator should be informed of its impact. For example, a held job equal to or above the barrier which is 'awaiting selection of main' will prevent any job below the barrier from being selected.

If you specify an invalid subparameter, JES3 uses the parameter default.See"Statement Summary" on page 112 for additional information.

DEF=
Indicates that this is the default group to be assigned to all job classes that have no GROUP parameter on the CLASS statement. Only one GROUP statement should specify the DEF=YES parameter; if you specify DEF=YES on multiple statements, the last such statement in the initialization stream defines the default class.

JS3BATCH is assigned as the default group with MODE=JES if DEF=YES is not specified on any GROUP statement in an initialization stream.

DEVPOOL=
Specifies that a pool of devices is to be dedicated to jobs in this group for volume mounting on all mains for which this group may be enabled. If the DEVPOOL parameter is specified, devices may not be dedicated in the EXRESC parameter.

The POOLNAMS parameter on the SETNAME statement, with appropriate XTYPE definitions on the DEVICE statement, may be used to define unique sets of devices with the shareability (physical attachment) desired for this group.

Note: Device fences apply to all jobs in a group whether the jobs are started tasks or batch jobs.

devopt
Specifies how JES3 is to allocate devices to jobs in this group.

ANY
Indicates that jobs in this group can use nondedicated devices and dedicated devices. JES3 always tries to allocate dedicated devices first. The default is ANY.

GROUP
Indicates that only devices dedicated to this group can be used for volume mounting.

Note: The pool of devices will not be dedicated until the group's execution resources have been allocated, as indicated by the alopt subparameter of the EXRESC parameter. Before that point, the devices can be used by jobs of any group. If you want the devices to be dedicated to this group at all times, specify IPL.

devname
Indicates the unit address of the device or the name of the device as specified in the NAMES parameter on the SETNAME statement. The *devname* subparameter should have *devcount* immediately following it.

devcount
Specifies how many of the indicated devices are to be dedicated; if a device number is specified for *devname*, the associated *devcount* specified must be 1.

/devnum or devnum
Specifies the device number (by 3-digit or 4-digit number). A slash (/) preceding the device number is not required. Device numbers can be specified by any of the following formats:

```
ddd
dddd
/ddd
/dddd
```

ddd and dddd represent the device numbers.

JSPAN=
Specifies the number of jobs in this group to be examined in selecting a job to be scheduled.

nnnnn
Indicates a decimal number from 1 to 65534.

ALL
Indicates that all the jobs in the group are to be examined.

See "Parameters" on page 183 for additional information.

Examples

Example 1: The following example shows how to dedicate three initiators to a job class group, ABC, on a dynamic basis (whenever jobs of that class exist in the system) on local main SY1.

```
GROUP,NAME=ABC,EXRESC=(SY1,3)
```

Example 2: In the following example, a pool of six TAPES12 devices is fenced for use (in conjunction with nondedicated devices) by jobs in the PROC job class group on local mains SY1 and SY2. Three initiators on both mains are dedicated to this group. (Note that the name TAPES12 defines a group of tape devices accessible from local mains SY1 and SY2.)

```
GROUP,NAME=PROC,EXRESC=(SY1,3),EXRESC=(SY2,3),
DEVPOOL=(,TAPES12,6)
```

Example 3: In the following example a WLM-managed group is defined, but the initiator related options are specified in case the group needs to be eventually switched to JES management.

```
GROUP,NAME=JES3TEST,MODE=WLM,
EXRESC=(SY1,9,,DEMAND,DYNAMIC),
EXRESC=(SY2,10,,DEMAND,MANUAL)
```

Note: An EXRESC parameter must be specified for each system. The EXRESC parameter specifies which systems the group is allowed to have initiators on. If a particular system name does not appear in the EXRESC parameter, jobs in that group will not be allowed to run on that system.

Example 4: In this example, there are three systems in the SYSPLEX and you want group JES3TEST to run only on two of those systems. Since the initiator options are not specified, the default options will be used. The EXRESC parameter is specified as follows:

```
GROUP,NAME=JES3TEST,MODE=WLM,EXRESC=SY1,EXRESC=SY2
```

Example 5: In this example, you want to define an execution resource device fence for a WLM-managed group, and you do not want to define initiator options:

```
GROUP,NAME=JES3TEST,MODE=WLM,EXRESC=(SY1,,,,,ANY,3490,...3),...
```

Example 6: In this example, you want to define a JES managed group to all three systems in the SYSPLEX. On each system you want the number of initiators and the initiator allocation and deallocation options to be the same:

```
Hard Way
```

```
  GROUP,NAME=JES3TEST,MODE=JES,
  EXRESC=(SY1,9,,DEMAND,DYNAMIC),
  EXRESC=(SY2,9,,DEMAND,DYNAMIC),
  EXRESC=(SY3,9,,DEMAND,DYNAMIC)
```

```
Easy Way
```

```
  GROUP,NAME=JES3TEST,MODE=JES,
  EXRESC=(*ALL,9,,DEMAND,DYNAMIC),....
```

Example 7: In this example, you want to define a WLM-managed group to all three systems in the SYSPLEX.

```
Hard Way
```

```
  GROUP,NAME=JES3TEST,MODE=WLM,
  EXRESC=SY1,
  EXRESC=SY2,
  EXRESC=SY3
```

```
Easy Way
```

```
  GROUP,NAME=JES3TEST,MODE=WLM,
  EXRESC=*ALL
```

See the description of the SELECT statement for an example showing how the GROUP statement relates to the SELECT statement.

HWSNAME (High Watermark Setup Names)

Use the HWSNAME statement to:

- Define, to JES3, all names by which users can reference a given device type to enable high watermark setup (HWS) processing.
- Identify the characteristics of each device name for the specific JES3 complex. This statement can be used to define which device names are subsets of other device names. In general, the fewer the number of alternate names, the more restrictive the device name being defined. This ensures that initial allocation for devices that are reused from step to step is the most restrictive device. It also ensures that attempts to override passed or cataloged unit names are processed correctly. Non-HWS users are encouraged to supply HWSNAME information to take advantage of this function.

Statement Summary

Table 36. HWSNAME Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. The device names and alternate names specified on the HWSNAME statement must be defined as JES3 supported-names on the SETNAME initialization statement. Use continuation statements if more alternate names are needed than can be accommodated by one statement.
	2. The SETUP parameter on the STANDARDS statement specifies whether high watermark setup is to be used. (This statement may be overridden by the //*MAIN JES3 control statement.)
	3. Every device name specified on the HWSNAME statement must be specified on the applicable SETNAMES statement(s).
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters.
	• If you change the HWSNAME statement, you should restart any C/I FSS's that are active. This ensures that the changes are incorporated.

Syntax

```
►►──HWSNAME──,TYPE=──(──devname──┬──────────┬──)──────────────────►◄
                                 └─,altnam─┘
```

Parameters

TYPE=

Specifies the name(s) of a device type that is valid for high watermark setup.

devname

Specifies any user-supplied or IBM-supplied group name (1-to-8 characters) associated with the specified unit name(s). The devnam identifies a device type valid for high watermark setup.

altnam

Specifies a list of valid user-supplied or IBM-supplied device names. These are alternate units to be used in device selection. The order of these names is the order in which allocation is attempted; when a device is selected, no search for a later alternate is made.

Special care must be taken when specifying alternate names. The alternate device must be compatible, for MVS allocation purposes, with the device specified by the devname subparameter. Thus, you may not specify a 2314 DASD as an alternate name for a 3330 DASD, and you may not specify 3330 as an alternate name for 2314. Similarly, you may not specify a 2400-series tape drive as an alternate for a 3400-series tape drive. You may, however, specify a 3400-series tape drive as an alternate for a 2400-series tape drive.

The following figure shows which tape drives MVS considers acceptable alternates to a request for a specific tape drive.

Table 37. Tape drive device types eligible for allocation

If you request a	MVS may allocate a:						
	2400	2400-3	2400-4	3400-3	3400-4	3400-5	3400-6
2400 (800 BPI)	X		X		X		
2400-3 (1600 BPI)		X	X	X	X		X
2400-4 (800/1600 BPI)			X		X		
3400-3 (1600 BPI)				X	X		X
3400-4 (800/1600 BPI)					X		
3400-5 (6250 BPI)						X	X
3400-6 (1600/6250 BPI)							X
Note: MVS does not support the 2400, 2400-3, or the 2400-4 device.							

If your JES3 complex includes dual-density tape drives, your initialization stream must include certain HWSNAME statements to achieve the best use of high-watermark setup. These statements are necessary because of the way MVS catalogs data sets that you requested to be created on dual-density tape drives. MVS determines which single-density tape drive (of the same series as the dual-density tape drive) uses the same density as the data set. MVS then catalogs the data set as requiring that single-density tape drive.

For example, if you create a data set on a 3400-6 dual-density tape drive at 6250 BPI, MVS catalogs the data set as requiring a 3400-5 tape drive (single density, 6250 BPI). MVS catalogs data sets this way regardless of whether your installation includes the single-density tape drive.

This cataloging method aids the device allocation process, because a request for a single-density device has more acceptable alternates for allocation than a request for a dual-density device. (See Table 37 on page 121.) Thus, in the above example, MVS may allocate either a 3400-5 or a 3400-6 for the data set. If the data set had been cataloged as requiring a 3400-6, MVS could allocate only a 3400-6.

Note: One special case exists in which MVS catalogs a data set as requiring a dual-density device. Because there is no single-density tape drive in the 3400-series with a density of 800 BPI, a data set created on a 3400-4 at 800 BPI is cataloged as requiring a 3400-4.

To use high-watermark setup, you must let JES3 know which device types are valid for HWS. If you have dual-density tape drives in your complex, you must include HWSNAME statements for all single-density tape drives that appear in the catalog as required devices for data sets. Otherwise, JES3 considers requests for those devices, whether through data set catalog entries or otherwise, ineligible for HWS.

Refer again to the example in which MVS catalogs a data set as requiring a 3400-5 tape drive when the data set was created on a 3400-6 tape drive at 6250 BPI. If you do not have any 3400-5 devices in your complex, MVS allocates a 3400-6 device for that data set. (See Table 37 on page 121.) If you want jobs using that cataloged data set to be eligible for HWS, you must tell JES3 that a request for a 3400-5 is a valid HWS request and that it is equivalent to a request for a 3400-6. Code your HWSNAME statements so that the 3400-6 and 3400-5 appear as alternates to each other:

```
HWSNAME,TYPE=(3400-6,3400-5)
HWSNAME,TYPE=(3400-5,3400-6)
```

See Table 38 for sample HWSNAME statement specifications for various configurations of 3400-series tape drives. The figure shows only the recommended generic device type specifications; you may add any esoteric names appropriate for your installation. Note that when your complex includes a single-density tape drive, the allocation of the single-density device cannot satisfy a request for the dual-density device. Therefore, the two device types are not equivalent. You must not specify the single-density device as an alternate to the dual-density device when the complex includes the single-density device.

Use the sample HWSNAME statements for 3400-series tape drives as a guideline for writing your HWSNAME statements for 2400-series tape drives.

Table 38. HWSNAME Statements for 3400-Series Tape Drive Configurations

For this configuration:			
3400-6 (1600/ 6250 BPI)	3400-5 (6250 BPI)	3400-3 (1600 BPI)	Include the following statements in your initialization stream
X	X	X	HWSNAME,TYPE=(3400-6) HWSNAME,TYPE=(3400-5,3400-6) HWSNAME,TYPE=(3400-3,3400-6)

Table 38. HWSNAME Statements for 3400-Series Tape Drive Configurations (continued)

For this configuration:			Include the following statements in your initialization stream
3400-6 (1600/ 6250 BPI)	3400-5 (6250 BPI)	3400-3 (1600 BPI)	
X	X		HWSNAME,TYPE=(3400-6,3400-3) HWSNAME,TYPE=(3400-5,3400-3,3400-6) HWSNAME,TYPE=(3400-3,3400-6)
X		X	HWSNAME,TYPE=(3400-6,3400-5) HWSNAME,TYPE=(3400-5,3400-6) HWSNAME,TYPE=(3400-3,3400-5,3400-6)
X			HWSNAME,TYPE=(3400-6,3400-5,3400-3) HWSNAME,TYPE=(3400-5,3400-3,3400-6) HWSNAME,TYPE=(3400-3,3400-5,3400-6)
	X	X	HWSNAME,TYPE=(3400-5) HWSNAME,TYPE=(3400-3)

Examples

Example 1: The following statements define the relationship among the names
supplied for a user's tape drives. Assume the user's JES3 complex includes 3400-4,
2400-4, and 2400 tape drives. The esoteric (user-defined) name TAPE encompasses
all tape drives in the complex, while the esoteric name DUALDEN encompasses
only dual-density tape drives. (Statement numbers to the left of each statement are
for the purpose of discussion only.)

```
HWSNAME,TYPE=(TAPE,DUALDEN,3400-4,3400-3,2400-4,2400-3,2400)
HWSNAME,TYPE=(DUALDEN,3400-4,3400-3,2400-4,2400-3,TAPE)
HWSNAME,TYPE=(2400,3400-4,3400-3,2400-4,2400-3,DUALDEN,TAPE)
HWSNAME,TYPE=(2400-4,2400-3,3400-4,3400-3,DUALDEN,TAPE)
HWSNAME,TYPE=(3400-4,3400-3,DUALDEN,TAPE)
HWSNAME,TYPE=(2400-3,2400-4,3400-4,3400-3,DUALDEN,TAPE)
HWSNAME,TYPE=(3400-3,3400-4,DUALDEN,TAPE)
```

Statement 1 defines all the device names that can be used to satisfy a request for
UNIT=TAPE. Note that both generic and esoteric alternate names are used.
Statement 2 defines all the names that can be used to allocate a UNIT=DUALDEN
request. Note that 2400 is not listed because it is not a dual-density device and
there are 2400s in the complex. On the other hand, 2400-3 and 3400-3 do appear as
alternates because there are no devices of those types in the complex, so a request
for one always results in the allocation of a dual-density device. TAPE also appears
as an alternate because TAPE could be used to satisfy a DUALDEN request.

In statement 3, all device names are shown as valid alternates for 2400. This is in
keeping with allocation rules that allow a single-density request to be satisfied by
certain dual-density devices. Statements 4 and 5 define the alternate names for the
respective dual-density generic names. Note that 3400-4 is an alternate for 2400-4,
but that the reverse is not true. This is because a 2400-4 cannot be used to satisfy a
request for a 3400-4.

Statements 6 and 7 define single-density device names that are entered in the
catalog for data sets created on 2400-4 or 3400-4 dual-density devices at 1600 BPI.

Assuming the HWSNAME input shown, the following JCL results in one device, a
2400-4, being allocated for the entire job.

```
//TST JOB
//STPA EXEC PGM=IEFBR14
//DDA1 DD DSN=A,UNIT=2400,VOL=SER=V1,DISP=OLD
//STPB EXEC PGM=IEFBR14
//DDB1 DD DSN=B,UNIT=DUALDEN,VOL=SER=V2,DISP=OLD
//STPC EXEC PGM=IEFBR14
//DDC1 DD DSN=C,UNIT=2400-4,VOL=SER=V3,DISP=OLD
```

According to the HWSNAME entries, a 2400-4 can be used to satisfy all unit requests in this job. That is, 2400-4 is an acceptable alternative to the DDA1's request for a 2400 unit (HWSNAME card 3) and DDB1's request for a DUALDEN unit (HWSNAME statement 2). One 2400-4 unit, therefore, will be assigned for DDA1 and this will be propagated to the remainder of the requests.

By contrast, if you want to completely separate the single-density and dual-density drives, the following could be provided.

```
HWSNAME,TYPE=(TAPE,DUALDEN,3400-4,3400-3,2400-4,2400-3)
HWSNAME,TYPE=(DUALDEN,3400-4,3400-3,2400-4,2400-3,TAPE)
HWSNAME,TYPE=(3400-4,3400-3,DUALDEN,TAPE)
HWSNAME,TYPE=(2400-4,2400-3,3400-4,3400-3,DUALDEN,TAPE)
HWSNAME,TYPE=(TAPSING,2400)
HWSNAME,TYPE=(2400,TAPSING)
```

With this HWSNAME input, the same JCL would result in two tape drives being assigned: one 2400 drive, to satisfy the DDA1 request, and the 2400-4 drive to be used for both the DDB1 and DDC1 requests. Note that the single-density tape drives defined as alternates to the dual-density tape drives do not violate the decision to separate dual-density and single-density devices. As in the previous set of HWSNAME statements, these single-density tape drives are equivalent to the dual-density tape drives because a request for one of them will always result in the allocation of a dual-density device.

Example 2: Assume that an installation has 3400-5 and 3400-6 tape drives. The 3400-5 single density tape drive should not be defined as an alternate for the 3400-6 dual density tape drive.

For example, consider the following JCL:

```
//STEPA EXEC PGM=X
//DD1 DD UNIT=3400-5,VOL=SER=VOL001,DISP=OLD
//DD2 DD DSN=ABC,UNIT=AFF=DD1,DISP=OLD
```

Assume that data set ABC is cataloged as residing on volume VOL003 and requiring a device type of 3400-6.

In a complex where both the 3400-5 and 3400-6 devices exist and are JES3-managed, the following HWSNAME statements should be used:

```
HWSNAME,TYPE=(3400-5,3400-6)
HWSNAME,TYPE=(3400-6)
```

This indicates that a 3400-6 is an acceptable alternate for a 3400-5, but the 3400-5 is not an acceptable alternative for a 3400-6. The UNIT affinity in the example, therefore, is negated because the referenced 3400-5 is not a valid subset of the cataloged unit (3400-6). Two devices would be required under these circumstances.

If the JES3 complex contained only 3400-6 tape drives, then the volume requested by DD1 would have to be mounted on a 3400-6 and the unit affinity on DD2 would be valid. However, the HWSNAME information would not allow JES3 to

HWSNAME

honor the affinity and two devices (3400-6) would still be required. But by modifying the HWSNAME statements as follows, the user could enable JES3 to allocate devices more efficiently:

```
HWSNAME,TYPE=(3400-5,3400-6)
HWSNAME,TYPE=(3400-6,3400-5)
```

Because the installation contains only dual density devices (3400-6), any device request can be satisfied by any available unit.

INCLUDE (Include Initialization Stream Member)

Use the INCLUDE statement to include a *member* in the initialization stream member. Different sections of the initialization stream can be put into different members and included in the primary initialization stream member. The *member* is the PDS member name within the data set specified on the JES3IN DD statement in the JES3 procedure to be included. Up to four member levels can be used (the primary initialization stream member and up to three INCLUDE level members) with the exception of the INCLUDE that contains the DYNALLOC statements where only a single level of nesting is supported.

Note: The INCLUDE statement cannot be used if JES3IN DD data set is concatenated, and the members to be included are in a data set other than the first in the concatenation.

Statement Summary

Table 39. INCLUDE Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	You can place an INCLUDE statement anywhere in the initialization stream.
Coding Considerations	• The INCLUDE statement is not supported if the JES3IN DD statement is concatenated, and the member to be included is not in the first data set in the concatenation. • All parameters pertaining to the INCLUDE statement must be defined on a single statement; continuation statements are not permitted.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters. • You may use the INCLUDE statement in the member of the PDS that you specify in the *MODIFY,CONFIG command.

Syntax

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INCLUDE

```
►►──INCLUDE──,MEMBER=member───────────────────────────────────────────►◄
```

Parameters

MEMBER=
> Required to identify the member in the data set specified on the JES3IN DD
> statement in the JES3 procedure.

member
> the actual member name in the data set specified on the JES3IN DD statement
> in the JES3 procedure. This member contains initialization statements that are
> to be included in the initialization stream.

Examples

```
1. DYNALLOC....
   DYNALLOC....
   *
   INCLUDE,MEMBER=JSAM          Include JSAM related statements
   *
   INCLUDE,MEMBER=MAINS         Include main processor information
   *
   INCLUDE,MEMBER=GMS           Include job classes, groups, select modes
   *
   .
   .
   .
   INCLUDE,MEMBER=UR            Include unit record devices
   *
   INCLUDE,MEMBER=TAPE          Include tape devices
   *
   INCLUDE,MEMBER=DASD          Include direct access devices
   *
   ENDINISH
```

Although you will typically not use the INCLUDE statement in the member
you specify on the *MODIFY,CONFIG command, segmented initialization streams
are useful when used in conjunction with *MODIFY,CONFIG processing. For
example, suppose all the RJPWS statements are in a member "RJPWS" of a PDS.
And suppose your IATUX15 supports conditional logic. For example IATUX15
is set up to interrogate the parameter string that is passes and skip over certain
initialization statements depending on the parameter value. To add new RJPWS
statements to the initialization stream, all that would have to be done is the
following:

- Add the new RJPWS definitions to the existing "RJPWS" member.
- Add conditional logic in the RJPWS member to just process the new
  statements when a *MODIFY,CONFIG command is issued. For example:

```
*IF PARM.(1,3) = NEW NEWSTUFF   Skip over old definitions if *F,CONFIG

** old RJPWS definitions **

RJPWS,.....
RJPWS,.....
RJPWS,.....
RJPWS,.....
RJPWS,.....

*LBL NEWSTUFF
** new RJPWS definitions **

RJPWS,.....
RJPWS,.....
```

- Issue the following `*MODIFY,CONFIG` command:

  ```
  *MODIFY,CONFIG,ADD=RJPWS,P=NEW
  ```

  As a result of specifying "P=NEW" the old RJPWS definitions will be skipped and only the new RJPWS definitions will be processed.

2. If a spool is being added via the *MODIFY CONFIG command, the standard rule for adding statements does not apply. Instead, the specified member must include all previously defined TRACK and FORMAT statements. All DYNALLOC statements should also be included, to simplify spool definition setup. JES3 will determine the spool extents that are being added, if any, and the same member will be used the next time the initialization stream is read.

   In the following example, the installation uses one spool volume, SPOOL1, whose DD statement is already included in the JES3 start procedure. The INCLUDE member (for example, JSAM) contains the following statements:

   ```
   DYNALLOC,DDN=IATPLBI1,DSN=SYS1.PROCLIB
   DYNALLOC,DDN=IATPLBI1,DSN=SYS1.PROCLIB.INSTALL
   *
   * STARTED UP TASK CONTROL PROCLIBS
   *
   DYNALLOC,DDN=IATPLBS1,DSN=SYS1.PROCLIB
   DYNALLOC,DDN=IATPLBS1,DSN=SYS1.PROCLIB.INSTALL
   *
   * TSO USER LOGON PROCLIBS
   *
   DYNALLOC,DDN=IATPLBT1,DSN=SYS1.PROCLIB
   DYNALLOC,DDN=IATPLBT1,DSN=SYS1.PROCLIB.INSTALL
   *
   TRACK,DDNAME=SPOOL1,SPART=PART1
   *
   SPART,NAME=PART1,DEF=YES,INIT=YES
   *
   BUFFER,SPLIM=(3,5),PAGES=500,GRPSZ=12,BUFSIZE=4084
   *
   OPTIONS,WANTDUMP=YES,DUMP=PRDMP,JOBNO=(1,32767,32767),MT=ON
   *
   ENDJSAM
   ```

   To add a new spool, SPOOL2, update the JSAM member as follows:

   ```
   DYNALLOC,DDN=IATPLBI1,DSN=SYS1.PROCLIB
   DYNALLOC,DDN=IATPLBI1,DSN=SYS1.PROCLIB.INSTALL
   *
   * STARTED UP TASK CONTROL PROCLIBS
   *
   DYNALLOC,DDN=IATPLBS1,DSN=SYS1.PROCLIB
   DYNALLOC,DDN=IATPLBS1,DSN=SYS1.PROCLIB.INSTALL
   *
   * TSO USER LOGON PROCLIBS
   *
   DYNALLOC,DDN=IATPLBT1,DSN=SYS1.PROCLIB
   DYNALLOC,DDN=IATPLBT1,DSN=SYS1.PROCLIB.INSTALL
   ```

   The following two statements are added:

   Note: Although the statements will work as shown, you should keep all TRACK/FORMAT statements in order. In this example, TRACK for SPOOL2 would follow TRACK for SPOOL1.

   ```
   DYNALLOC,DDN=SPOOL2,DSN=SYS1.JES3SPL
   TRACK,DDNAME=SPOOL2,SPART=PART1
   *
   TRACK,DDNAME=SPOOL1,SPART=PART1
   *
   SPART,NAME=PART1,DEF=YES,INIT=YES
   ```

```
*
BUFFER,SPLIM=(3,5),PAGES=500,GRPSZ=12,BUFSIZE=4084
*
OPTIONS,WANTDUMP=YES,DUMP=PRDMP,JOBNO=(1,32767,32767),MT=ON
*
ENDJSAM
```

INTDEBUG (Initialization Debugging Facility)

Use the INTDEBUG statement to specify error message text and an index value. If the specified message text is issued the number of times indicated by the index value, JES3 issues a U005 JES3 user abnormal end and takes a storage dump. See *z/OS JES3 Diagnosis* for a description of JES3 completion codes.

This initialization debugging facility monitors all occurrences of a specified message up to the occurrence where a dump is being requested. Only one message can be monitored at a time. Following the dump, the main must be reinitialized.

Statement Summary

Table 40. INTDEBUG Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	An INTDEBUG statement must be placed in an initialization stream so that it precedes the point where the error message occurs in the JES3OUT listing. (Exception: INTDEBUG must not precede a DYNALLOC statement).
Coding Considerations	1. The INTDEBUG statement must start in column one; it *cannot* be continued, nor can comments be embedded. 2. Only one INTDEBUG statement is active at a time; if more are specified, only the last statement is used.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters. • You may use the INTDEBUG statement in the member of the PDS that you specify in the *MODIFY,CONFIG command.

Syntax

```
►►──INTDEBUG──,index,message$$──────────────────────────────────────►◄
```

Parameters

index

Required to identify which occurrence of a message should produce a dump. The index must be a decimal number from 1 to 9 indicated in column 10 of

this card. To determine the value of the index, count the number of times a message occurs after the INTDEBUG statement, up to and including the occurrence that is to cause the dump.

message
Required to indicate text to compare against generated error messages; the text is terminated by $$. The message text may be variable length, in columns 12-69, with $$ indicating the end. The $$ terminator may be placed as far as columns 70 and 71. If the terminator is omitted, the message text is assumed to be in columns 11-71.

Examples

Example 1: In the example which follows, a dump is needed to analyze why, when error message IAT3602 occurs for the third time, it contains meaningless data. This statement is placed so that problem message IAT3602 is the third IAT3602 message after this statement.

INTDEBUG,3,IAT3602 MAIN$$

Example 2: In the example which follows, error message IAT3251 is being issued for an IOB parameter on a BUFFER statement. To get a dump associated with this parameter error, this statement is placed in front of the BUFFER statement:

INTDEBUG,1,IAT3251 BAD KEYWORD,(IOB),SCAN ENDED$$

MAINPROC (Define a JES3 Main)

Use the MAINPROC initialization statement to define a processor as a JES3 main. The initialization stream must include one MAINPROC statement for each main that you want to define to JES3.

Statement summary

Table 41. MAINPROC Summary

Variable	Value
Required/Optional Statement	Required
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. The SELECT parameter on this statement must correspond to the NAME parameter (specified value or default value) of a SELECT statement. 2. The SPART parameter on the MAINPROC statement must correspond to the NAME parameter on a SPART statement. 3. The MAXSYSTEM value for any sysplex couple data set should be equal to or greater than the total number of mains that are defined by the MAINPROC statement.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	The TRKGRPS parameter specification on the SYSOUT and CLASS initialization statements and on the //*MAIN JES3 control statement override the TRKGRPS parameter specification on the MAINPROC initialization statement.

Table 41. MAINPROC Summary (continued)

Variable	Value

Restart or Command Modification	• Warm start, cold start, or hot start with refresh for all parameters.
	
	• Do not change the sequence of MAINPROC statements during a hot start with refresh. However, you can add or delete statements at the end of the sequence, or you can rename an existing MAINPROC statement to a new one without changing the order of any other existing MAINPROC statements. Use a cold start to change the sequence of MAINPROC statements.
	
	Although JES3 will not prevent you from changing the sequence of MAINPROC statements during a warm start, this is not recommended and will in some cases cause undesirable side effects. For example, a job could run on a system other than the system or systems for which it is intended. If you do make this change, evaluate how a change in sequence will affect your operations, for example, consider things such as:
	
	  – Whether there are any jobs in pre-execution at the time you perform the warm start or if all jobs in the job queue are in output service.
	
	  – Whether groups and classes have special main limitations or whether they are defined such it does not matter where a job in the class or group runs.
	
	  – Whether jobs exist that indicated the processors to be used to execute the job by specifying the SYSTEM or SYSAFF parameter on the MVS JOB statement or the SYSTEM parameter of the JES3 //*MAIN JECL statement.
	
	  – Whether you have any user modifications that depend on the MPC sequence number.
	
	• You can also use the `*MODIFY,G,main,SELECT,MODE,m` command to change the "select mode" for a MAINPROC.
	
	• The global processor cannot be deleted during a hot start with refresh. If you attempt to do this, an error message is issued and JES3 initialization ends.
	
	• If you IPL and start JES3 on a processor that is not currently defined by a MAINPROC statement, you can add the processor with a hot start with refresh only if you do not intend to bring it up as the global at the same time. If you do intend to make it the global, you must perform a warm or cold start. Alternatively, you can perform a Dynamic System Interchange (DSI) to temporarily make an existing processor the global, add this processor as a local, and then perform a DSI to this processor after it has been added.
	
	• During a hot start with refresh, the parameters PRTPAGE and FIXPAGE cannot be changed unless the processor described by the MAINPROC statement is IPLed.
	
	• During a hot start with refresh, if any MAINPROC statements are added, deleted, or changed, all processors that are below the z/OS 1.4.0 JES3 level must be IPLed.

Syntax

```
►►──MAINPROC──,NAME=main─────────────────────────────────────────────────────────►
                          └─,SYSTEM=JES3─┘                        ┌─5──────────┐
                                          └─,FIXPAGE=─┴─fixedpages─┘
```

```
         ┌─,ID=msgprefix─┐
►────────┴───────────────┴──────────────────────────────────────────────────►
             └─,JESMSGLMT=──(─┬─────0──────┬──,─┬────10──────┬──)─┘
                              └─WTO_limit──┘     └─Interval──┘

                 ┌──65───┐
►────────────────┼───────┼──────────────────────────────────────────────────►
      └─,MDEST=──┼─Mcode─┤    └─,PRTPAGE=──(─┬───────────┬──┬────────────┬──)─┘
                 ├─M1────┤                   └─csapages──┘  └─,auxpages──┘
                 └─nnn───┘

                 ┌─JS3BATCH─┐
►────────────────┴──────────┴────────────────────────────────────────────────►
      └─,SELECT=──┴─selmode──┘    └─,SPART=partionname─┘

                   ┌──1───────┐┌──2──────────┐        ┌──4──┐
►─────────────────┴──────────┴┴─────────────┴────────┴─────┴──────────────►◄
      └─,TRKGRPS=──(─┴─prigrps──┘└─,secgrps──┘──)─┘  └─,USRPAGE=──┴─nn─┘
```
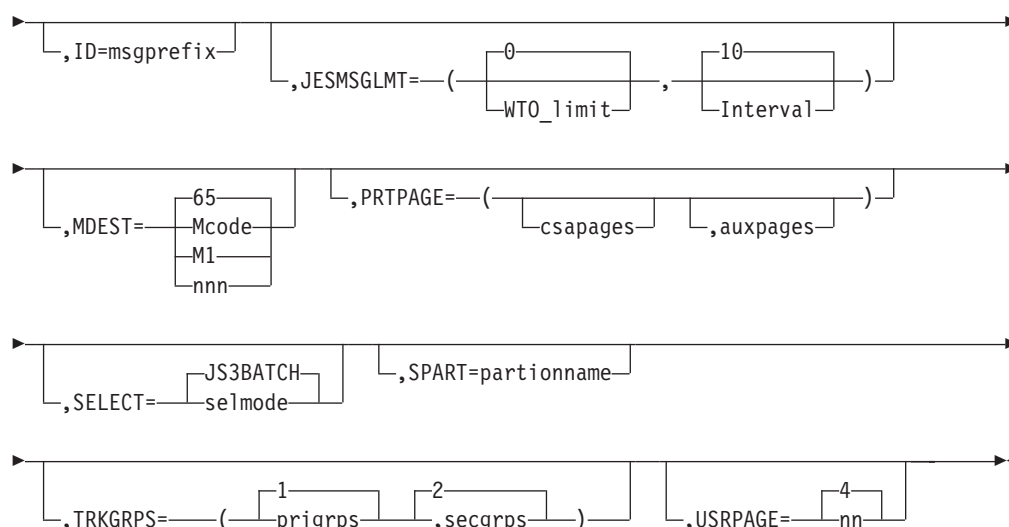
Parameters

NAME=
>Specifies the name of a JES3 main. The name can be 1 to 8 characters. The name should match the purpose of the main, or at least the hardware it is using. You also use this name in operator commands and in the JES3 CLASS, DEVICE, GROUP, MSGROUTE, and SETACC initialization statements to refer to the main. It must be the first or second parameter on the statement.
>
>Do not use names or abbreviations of operator commands such as 'CONTROL', or message destination class names. Do not use the terms 'short,' 's,' 'all,' or 'ALL' as names of mains.
>
>Ensure that the name you specify matches the name you specify on the SYSNAME parameter in the IEASYSxx member of the MVS SYS1.PARMLIB data set that is used to IPL the system. If the names do not match, JES3 initialization will fail on that system. See *z/OS MVS Initialization and Tuning Guide* for additional information about the IEASYSxx member of the MVS SYS1.PARMLIB data set.

SYSTEM=
>Specifies that JES3 is running on this main. You do not need to code this parameter.

FIXPAGE=
>Specifies the number of pages of USAM protected data buffers (PBUFs) that JES3 is to fix in storage during JES3 initialization.
>- If fixedpages is less than csapages (specified on the PRTPAGE parameter), JES3 fixes the specified number of pages in ECSA only.
>- If fixedpages is greater than csapages, JES3 fixes all PBUF pages in ECSA. If you specify auxpages on the PRTPAGE parameter, JES3 determines the remaining number of pages to be fixed (fixedpages – csapages) and fixes that number of pages in the JES3 auxiliary address space.

ID=
>Specifies a message prefix (1 to 8 characters) for every message received *from* this JES3 main and logged on the MDEST console (determined by the MDEST parameter). This prefix will precede the R prefix which automatically identifies every message that is received.

To suppress the automatic R prefix, code a pound sign (#) as the last character of the prefix. For example, ID=SYS2 provides SYS2 R=message; but ID=SYS2# provides SYS2=message.

JESMSGLMT=
Specifies how you want JES3 to control the issuing of messages by establishing message limits.

WTO_limit
Specifies the maximum number (0–99999999) of messages that can be issued within a period of time defined by the "Interval" subparameter before JES3 issues message IAT6850 to prompt operator action. IAT6850 indicates both the **jobname** and **system** on which the job is running.

This message is primarily intended for automation processing.

If no value or 0 (the default) is specified, then no monitoring of JES3 issuing messages takes place.

Interval
Specifies the period of time (0–32767 seconds) to which the WTO limit subparameter applies.

You specify "0" to indicate that message will be issued every time the WTO limit is reached, regardless of the time it takes to arrive at that limit.

The actual interval value used by the system is calculated using the minimum resolution of the first word of the STCK instruction value (1.048576 seconds) and rounded up or down to the nearest integer.

MDEST=
Specifies the routing information for messages that are about this main. This value may be specified as a JES3 destination class selected from the range M1 to M32, or as an MVS routing code.

If a routing code is used, nnn specifies a decimal number from 1 through 28, or 41 through 128. IBM reserves routing codes 29 through 40 for it's use. If these route codes are specified, they will be ignored.

If a JES3 destination class is specified, the MVS routing code equivalent of the destination class is used to route the messages. See *z/OS JES3 Initialization and Tuning Guide* for a summary of the JES3 destination classes and their routing code equivalents.

PRTPAGE=
Specifies the number of pages of storage that JES3 may use as USAM protected data buffers (PBUFs). For more information about JES3AUX address space and defining buffers, see *z/OS JES3 Initialization and Tuning Guide*.

csapages
Specifies the number of pages of ECSA that you want JES3 to use.

auxpages
Specifies the number of pages in the JES3 auxiliary address space that you want JES3 to use. The total number of pages (csapages + auxpages) that you can specify must be between 16 and 16,383 or 16 and 32,767 inclusive, depending on the number of buffers per page.

The maximum number of pages is 32,767 for systems with one buffer per page (a buffer size greater than 2036 bytes) or 16,383 for systems with two buffers per page (a buffer size of 2036 or less). You specify the size of buffers on the BUFSIZE parameter of the BUFFER initialization statement.

Note: Specifying more buffers than are appropriate for the available amount of central storage can degrade performance. A value of 16,383 consumes approximately 64 megabytes of virtual storage (some in ECSA and some in the JES3 auxiliary address space as defined on the csapages and auxpages parameters). Specifying a maximum of 32,767 consumes approximately 128 megabytes of virtual storage (some in ECSA and some in the JES3 auxiliary address space as defined on the csapages and auxpages parameters).

If you do not want to allocate JES3 auxiliary storage, specify 0 as the auxpages value.

JES3 uses the following defaults if you do not specify values for the PRTPAGE parameter or both the *csapages* and *auxpages* parameters:

csapages:
> 16 times the number of spool data sets or 512, whichever is smaller.

auxpages:
> 0

If only one subparameter is specified, the other subparameter defaults to zero.

SELECT=
> Specifies the name of the job selection mode to be initially assigned to this main. The scheduling controls associated with this job selection mode should be appropriate for the main being defined by this MAINPROC statement. The selmode must match the NAME parameter on a SELECT initialization statement (except if the default JS3BATCH is used).

SPART=
> Specifies the spool partition that JES3 is to use for jobs that execute on the main defined by this statement. The partition name must match a partition name specified on an SPART statement. To specify the default spool partition, omit the SPART parameter.
>
> If you specify an undefined partition name, JES3 uses the default partition.
>
> A partition name specified on a //*MAIN JES3 control statement or on a CLASS statement can override the partition name specified by this parameter. For a discussion of the order of overrides and when they occur, see "Determining the Order of Spool Partition Overrides" and "How the User Can Request A Spool Partition" in *z/OS JES3 Initialization and Tuning Guide* .
>
> If you specify an invalid subparameter, JES3 uses the parameter default.

TRKGRPS=
> Specifies the number of track groups (as defined by the GRPSZ parameter on the BUFFER or SPART statement) JES3 is to allocate to jobs that execute on this main. For guidelines on how to determine the appropriate value for the TRKGRPS parameter for your installation, see "Determining Track Group Allocation Sizes" in *z/OS JES3 Initialization and Tuning Guide*.

> **prigrps**
> > Specifies the number of track groups to be initially allocated to jobs that execute on this main. The specified value may be 1 through 9.

> **secgrps**
> > Specifies the number of track groups to be allocated to jobs that execute on this main subsequent to their primary allocation. JES3 allocates the

specified amount of spool space after the job uses up its initial allocation, and again (for an unlimited number of times) when the job uses up each secondary allocation and requests more spool space. The specified value may be 1 through 9.

If you specify an invalid subparameter, JES3 uses the parameter default.

USRPAGE=
Specifies the number of 4K pages for each open SYSOUT data set. The USRPAGE parameter indicates pages of user address space for SYSOUT buffers. These pages are used as required and released when they are no longer required. Specify a 1- or 2-digit number from 1 to 20.

If you specify an invalid subparameter, JES3 uses the parameter default.

MSGROUTE (MVS Message Route Table)

Use the MSGROUTE statement to control the routing of subsystem modifiable messages (such as most MVS-issued messages). If you do not include a MSGROUTE statement, the routing attributes of the messages that originate from that processor are not modified by JES3 MSGROUTE processing. Even though MSGROUTE processing may not make modifications, a message is still eligible for other forms of JES3 message routing.

When a message is issued with multiple routing codes, JES3 selects a single routing code to use for MSGROUTE processing. See *z/OS JES3 Initialization and Tuning Guide* for more information.

Statement Summary

Table 42. MSGROUTE Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None.
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. The console parameter must be the same as the name of an MCS console or an extended MCS console. 2. JES3 will not remove routing code 9 (security) from a message, even when the ,J option is specified in the MSGROUTE entry used for the message.
Security Usage	None.
Performance Considerations	None.
Initialization Stream Overrides	None.
Restart or Command Modification	• Hot start with refresh for all parameters. • You can use the JES3 *INQUIRY,M and *MODIFY,M commands to inquire about, and dynamically change the mappings of MVS routing codes and JES3 destination classes.

The following chart shows the parameters you should include or omit to route messages to the desired destination:

To route messages:	Use these parameters:
To the original destination(s) specified by the message issuer	Omit *destclass, console, J,* or omit the routing code.
To a specific console	Specify *console* and any other parameters.
To the specified destination class/routing code **in place** of the routing code(s) specified by the message issuer	Specify *J* and any other parameters.
To the specified destination class/routing code **in addition to** the routing code(s) specified by the message issuer	Omit *J*. Specify any other parameters.
To only the hardcopy log	Specify *J* only.

Syntax

```
►►──MSGROUTE──,MAIN=main────────────────────────────────────────►◄
                          └─┤ Routing ├─┘
```

Routing:

```
         ┌────────────────────────────────────────────┐
├────────┴──┬───────────────┬──(──┬───────────┬──,──┬───────────┬──,J─)─┴──┤
            └─,routecode=────┘     └─destclass─┘      └─console───┘
```
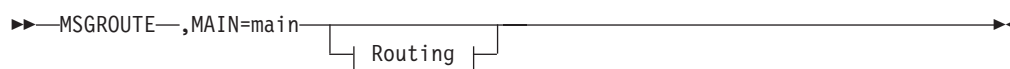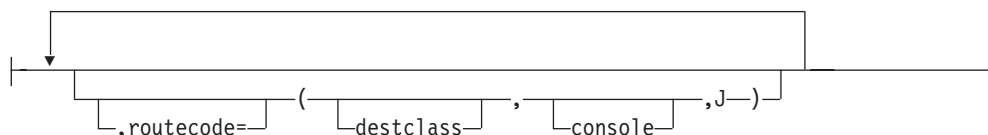
Parameters

MAIN=
    Specifies a 1- to 8-character name of the main to which these definitions apply. The name must match the name you specify on the NAME parameter on a MAINPROC statement.

routecode =
    Specifies the MVS routing code and a console name or destination class to which you want messages sent.

    routecode
        Specifies an MVS routing code which between 1 and 128 inclusive.

    destclass
        Specifies a JES3 console destination class to which you want messages with the designated MVS routing code mapped.

    console
        Specifies the name of an MCS console or an extended MCS console.

    J   Specifies that the routing code equivalent of the destination class is to be used for the message instead of the message's original routing code(s). If you do not specify "J", the routing code equivalent will be merged with the message's original routing code(s).

MSGROUTE

Table 43. MSGROUTE Summary - Message from the Local

MSGROUTE Parameter	Console
None or routing code omitted	The message is displayed on consoles receiving the original routing code(s).
Destination class only	The message is displayed on consoles receiving the original routing code and on consoles receiving the equivalent routing code of the destination class.
Destination class and J	The message is displayed on consoles receiving the equivalent routing code of the destination class.
Console name only	The message is displayed on consoles receiving the original routing code(s) and on the console with the specified name.
J only	MCS and extended consoles receiving the hardcopy destination
Destination class and console name	Consoles receiving the original routing code(s) and on consoles receiving the equivalent routing code of the destination class. Also displayed on the console with the specified name.
Console name and J	Console with the specified name.
Destination class, console name and J	Console with the specified name and on consoles receiving the equivalent routing code of the specified destination class.

The following table summarizes message routing for messages issued from the global processor.

Table 44. MSGROUTE Summary - Message from the Global

MSGROUTE Parameter	Console
None or routing code omitted	The message is displayed on consoles receiving the original routing code(s).
Destination class only	Consoles receiving the original routing code and on consoles receiving the equivalent routing code of the destination class.
Destination class and J	The message is displayed on consoles receiving the equivalent routing code of the destination class.
Console name only	The message is displayed on consoles receiving the original routing code(s) and on the console with the specified name.
J only	MCS and extended consoles receiving the hardcopy destination.
Destination class and console name	Consoles receiving the original routing code(s) and on consoles receiving the equivalent routing code of the destination class. Also displayed on the console with the specified name.
Console name and J	Console with the specified name.
Destination class, console name and J	Console with the specified name and on consoles receiving the equivalent routing code of the specified destination class.

Many factors influence the routing of message traffic. See *z/OS JES3 Initialization and Tuning Guide* for additional information.
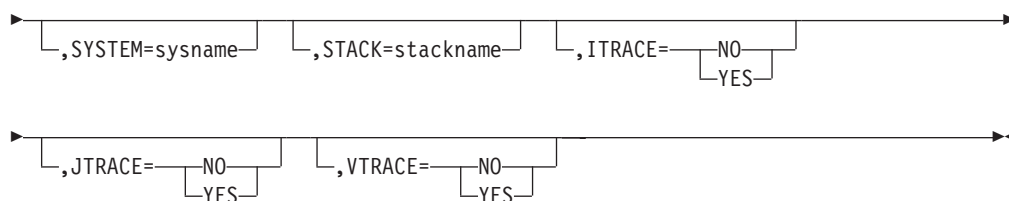
If you have not defined any console to display a message, it is sent only to the system log provided you define at least one of the message's original routing code(s) on HARDCOPY parameter in the CONSOLxx member of SYS1.PARMLIB or the issuer originally specified that the message be sent to the log (and no other facility such as MPF overrides that specification). Otherwise, the message does not appear on any console or in the system log.

NETSERV

Use the NETSERV initialization statement to define the attributes of a TCP/IP/NJE Network Server (NETSERV) address space. Refer to the making security definitions for a TCP/IP/NJE Netserv section in *z/OS JES3 Initialization and Tuning Guide* for additional information.

Statement Summary

Table 45. NETSERV Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None.
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	NAME is the only required parameter. However, the SYSTEM parameter must be specified at initialization time or modified later to start the address space.
Security Usage	The NETSERV address space must be defined to the security product STARTED class. To minimize the number of STARTED profiles, it is suggested that you define all of your NETSERVs with a common name pattern so that you can cover them all with one generic profile. See the TLS keyword on the NJERMT statement.
Performance Considerations	None.
Initialization Stream Overrides	The NAME= parameter cannot specify the same name as an existing DEVICE statement or a system generated device (SYSMAIN, BSC NJE printer, BSC NJE punch, or BSC NJE sender). If this happens, the system generated device overrides the Netserv definition. The only exception is during *MODIFY,CONFIG. If a printer that is defined during *MODIFY,CONFIG has the same name as a previously existing Netserv, the Netserv definition prevails and the printer is rejected.
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. • Use the *MODIFY,NETSERV=name command to modify an existing Netserv. • Use the *MODIFY,NETSERV,ADD=name command to add a new Netserv. • Use the *MODIFY,NETSERV,DELETE=name command to delete a Netserv. An active Netserv cannot be deleted or modified except to change the JTRACE, VTRACE, or ITRACE parameter.

Syntax

```
►►──NETSERV──,NAME=name──────────────────────────────────────────────────────►
                         └─,HOSTNAME=hostname─┘  └─,PORT=──┬─0─────┬─┘
                                                           └─nnnnn─┘
```

```
►►──┬─────────────────────┬──┬──────────────────────┬──┬─,ITRACE=─┬─NO──┬──┬───►
     └─,SYSTEM=sysname─────┘  └─,STACK=stackname─────┘  │          └─YES─┘  │
                                                         └──────────────────┘
```

```
►──┬─────────────────────┬──┬─────────────────────┬─────────────────────────►◄
   └─,JTRACE=─┬─NO──┬─────┘  └─,VTRACE=─┬─NO──┬────┘
              └─YES─┘                   └─YES─┘
```

Parameters

NAME=name

Specifies a 1-8 character name that uniquely identifies this Netserv and is also used to start the Netserv address space. The name must contain only A-Z, @, $, #, or 0-9 and cannot start with a digit.

HOSTNAME=hostname

Specifies the IP host name or IP address that the Netserv will use to listen over TCP/IP for incoming data. This name can be omitted to use the default, which tells TCP/IP to listen over any IP address that is defined for this processor. Multiple Netservs can listen over the same host name or use the default, if different ports are used.

The host name can consist of up to 60 characters and must be a legal TCP/IP address or host name defined to the TCP/IP resolver. The host name can be in IPV4 or IPV6 format.

PORT=

Specifies a port number that the Netserv will use, in combination with the host name, to listen over TCP/IP for incoming data. The port must be a number from 0 to 65,535. Port 0 indicates that when the Netserv starts a standard service name of VMNET, VMNET will be used instead of a numeric port. The service of VMNET corresponds to port 175. Although there is a corresponding port for the service NJENET-SSL, it is suggested that you use the TLS=YES parameter on the NJERMT statement or *MODIFY,NJE command instead.

SYSTEM=

Specifies the name of the system that the Netserv will run on. If the SYSTEM= parameter is omitted, the Netserv will run on the global. After a DSI, an active Netserv that defaulted to the global will remain running on the old global. However, the Netserv will run on the new global if it is subsequently brought down and back up.

STACK=

Specifies the name of the stack that TCP/IP uses to get its definitions when the Common INET (CINET) configuration is being used. If the STACK=name parameter is omitted, TCP/IP will use all stacks. The stack must contain only A-Z, @, $, #, or 0-9 and cannot start with a digit. When only an INET configuration is being used, any specification of a stack name is ignored.

ITRACE=

Indicates that internal tracing in the Netserv address space will be active.

JTRACE=

Indicates that JES tracing will be active. JES tracing occurs during JES specific exit points in the Netserv when data records, headers, and trailers are transmitted and received.

VTRACE=
>   Indicates that verbose tracing will be active. Verbose tracing involves various diagnostic messages being written to the console and job log from the Netserv address space.

Rules

The state of a Netserv after a JES3 start depends on the type of start that was requested:

Cold start
>   The initialization statements are read and used as the source of the Netserv state. The starting state is checkpointed.

Warm start
>   The initialization statements are read and used as the source of the Netserv state. The starting state is checkpointed, replacing checkpointed information from previous starts.

Hot start
>   The checkpointed information is the source for all Netservs. Because checkpoint includes the state and modifications from previous JES3 starts, that state is preserved across the hot start.

Hot start with refresh
>   The initialization statements are read and used as the source for inactive Netservs. Checkpointed information is used for active Netservs. The checkpoint includes state and modifications from previous JES3 starts, and that state is preserved across the start.

These rules dictate the outcome of each specific JES3 start situation. For example, if an initialization statement is changed and the system is hot started, the change will not be applied because a hot start does not read the initialization statements and preserves the checkpointed state. To apply such a change, The NETSERV statements must be read, which requires a cold, warm or hot start with refresh. Choosing hot start with refresh also means that the changed Netserv must be inactive across the restart. Likewise, if an inactive Netserv is modified by command and it remains inactive, the change will be lost across a hot start with refresh because this restart preserves changes only for active Netservs.

Examples

Example 1: In the following example it is assumed, and required, that BOSTON.COM has been correctly defined to TCP/IP.

```
NETSERV,NAME=JES3S1,SYSTEM=APPLES
NETSERV,NAME=JES3S1,SYSTEM=APPLES,HOSTNAME=BOSTON.COM,PORT=495
```

Example 2:

```
NETSERV,NAME=JES3S1,SYSTEM=APPLES,HOSTNAME=2.71.82.81,
PORT=495,STACK=TCPSTAK2
```

See also the "SOCKET" on page 199 statement for examples of NETSERV, SOCKET, and NJERMT statement combinations.

NJECONS (Console for NJE)

Use the NJECONS initialization statement to specify the message class to which JES3 is to send messages about the JES3 job entry network.

Statement Summary

Table 46. NJECONS Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	NJECONS,CLASS=108 (equivalent to JES3 Dest Class S12)
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	If more than one NJECONS statement is specified in the initialization stream, only the first statement is used. All NJECONS statements after the first are ignored.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►──NJECONS──────────────────────────────────────────────────►◄
              │            ┌─108────┐ │
              └─,CLASS=────┼─msgdest─┼─┘
                           └─S12────┘
```

Parameters

CLASS=
> Specifies the message destination to which you want JES3 to send network messages. This destination can be specified as a single JES3 destination class or a single MCS routing code. Specify this message destination on the consoles that you want to receive the network messages.
>
> If a routing code is used, nnn specifies a decimal number from 1 through 28, or 41 through 128. IBM reserves routing codes 29 through 40 for it's use and will ignore these codes if specified.

NJERMT (JES3 Network Node Definition)

Use the NJERMT initialization statement to define a node in the JES3 job entry network.

Statement Summary

Table 47. NJERMT Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.

Table 47. NJERMT Summary (continued)

Variable	Value
Coding Considerations	1. You must code a NJERMT statement for the home node (your node) and one for each remote node that will communicate with the home node.
	2. All DEVICE statements with the parameter DTYPE=SYSMAIN specified must precede the NJERMT statement.
	3. The JNAME parameter on a DEVICE statement that also includes a DTYPE=NJELINE parameter must match the LINE parameter on the NJERMT statement.
	4. The name specified on the NJENAME parameter of the MVS/BDT SYSID statement (for the BDT subsystem which processes SNA/NJE work) must match the name specified on the BDTID parameter of the NJERMT statement.
	5. If you are using the NAME= parameter for an XCF groupname default, (XCFGRPNM on the OPTIONS initialization statement), then the name must be 1-8 alphanumeric characters including $, # and @.
Security Usage	1. Use the expected password (EXPWD) parameter to specify a password that the home node expects to receive from a directly connected BSC node. The password allows a remote node to start a communication line to the home node. You can define the password (PWD) parameter that the home node must send to a directly connected BSC node. This password allows the home node to start a communication line to the remote node. In addition, the NJERMT statement contains the EXSIG and SIG passwords for dial-up lines.
	2. Use the PWCNTL parameter to specify whether job passwords should be sent encrypted, sent without encryption, or checked only at the local node.
	3. Use the SECSIGNON parameter (valid for TYPE=TCPIP only) to indicate that the signon procedure includes additional checking using the encryption of a random string to confirm the identity of the node.
	4. Use the TLS parameter (valid for TYPE=TCPIP only) to indicate that the TCP/IP transmission uses the Transport Layer Secure facility.

Table 47. NJERMT Summary (continued)

Variable	Value
Performance Considerations	MAXLINE and STREAM affect NJE throughput. Specify STREAM=2 if you prefer that small jobs streams not be held up by larger SYSOUT streams. Use as many lines between two nodes as possible to allow more work to be sent concurrently. NJEPR and NJEPU act as a throttle on output service. The amount of work being actively transmitted is limited by the number and speed of the transmission lines to directly connected nodes. The amount of SYSOUT work queued for transmission by output service is limited by the NJEPR and NJEPU parameters. You should set these values high enough to keep the lines busy on a moderately loaded system, but low enough to prevent too much work from being queued, which can degrade performance on a heavily loaded system. The size of JSAM buffers (defined on the BUFSIZE parameter of the BUFFER statement) affects performance. Use the largest buffer size possible to maximize networking performance.
Initialization Stream Overrides	None

Table 47. NJERMT Summary (continued)

Variable	Value
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. Use the: • `*MODIFY,NJE,ADD=` command to add a directly or indirectly connected node. • `*MODIFY,NJE,ADDAL=` command to add an alias. • `*MODIFY,NJE,DEL=` command to delete an indirectly connected node or an alias. • `*MODIFY,NJE,NAME=node,NETHOLD=` command to change the NETHOLD parameter. • `*MODIFY,NJE,NAME=node,PATH=` command to change the PATH parameter. • `*MODIFY,NJE,NAME=node,PWCNTL=` command to change the PWCNTL parameter. • `*MODIFY,NJE,NAME=node,RETRYCT=` command to change the RETRYCT parameter. • `*MODIFY,NJE,NAME=node,TYPE=` command to change the TYPE parameter. • `*MODIFY,NJE,NAME=node,PRTDEF=p` command to change the default print class for the home node or an alias. • `*MODIFY,NJE,NAME=node,PUNDEF=n` command to change the default punch class for the home node or an alias. • `*MODIFY,NJE,NAME=node,PRTTSO=t` command to change the default TSO class for the home node or an alias. • `*MODIFY,NJE,NAME=node,PRTXWTR=x` command to change the default external writer class for the home node or an alias. • `*MODIFY,NJE,NAME=node,SP=` command to change the SPART parameter. • *MODIFY,NJE,NAME=node,JT= command to change the number of job transmitters (TCP/IP only). • *MODIFY,NJE,NAME=node,OT= command to change the number of output transmitters (TCP/IP only). • *MODIFY,NJE,NAME=node,JR= command to change the number of job receivers (TCP/IP only). • *MODIFY,NJE,NAME=node,OR= command to change the number of output receivers (TCP/IP only). • *MODIFY,NJE,NAME=node,TLS= command to change the Transport Layer Secure setting (TCP/IP only). • *MODIFY,NJE,NAME=node,SS= command to change the secure signon setting (TCP/IP only). **Note:** The NAME parameter on the NJERMT statement that defines HOME=YES is the default for the XCFGRPNM parameter on the OPTIONS statement during a warm or cold start. If the home node is changed during a hot start with refresh and the XCFGRPNM parameter is not specified, the value of XCFGRPNM that was determined from the home node definition during the last warm or cold start remains in effect.

Syntax

```
►►─NJERMT─┬─,NAME=nohome────────┬──┬──────────────────────────────────────────►
          │                 (1) │  └─,AUTO=─┬─NO──┬──┬─────────────────────┬──┘
          ├─,NAME=home──────────┤           └─YES─┘  └─,RDLY=─┬─5──┬────────┘
          └─,ALIAS=aliasnam─────┘                             └─mm─┘

►─┬───────────────┬──┬──────────────────┬──┬─────────────┬────────────────────►
  └─,BDTID=sysid──┘  └─,BFSIZE=─┬─400──┬─┘  └─,CTC=─┬─NO──┬┘
                               └─nnnn─┘            └─YES─┘

►─┬────────────────────┬──┬───────────────────────┬──┬───────────────────────┬►
  └─,DEFCLASS=─┬─YES─┬──┘  └─,EXPWD=recpassword1───┘  └─,EXSIG=recpassword2───┘
              └─NO──┘

►─┬─────────────────┬──┬─────────────────┬──┬─────────────────┬───────────────►
  └─,HOME=─┬─NO──┬──┘  └─,JOBTRANS=─┬─1─┬┘  └─,JOBRECV=─┬─1─┬──┘
          └─YES─┘                  └─n─┘              └─n─┘

►─┬───────────────────┬──┬──────────────────┬──┬──────────────────┬───────────►
  └─,LINE=linename────┘  └─,MAXLINE=─┬─1─┬───┘  └─,NETHOLD=─┬─NO──┬┘
                                    ├─0─┤                  └─YES─┘
                                    ├─2─┤
                                    └─3─┘

►─┬───────────────┬──┬───────────────┬──┬──────────────────┬──────────────────►
  └─,NJEPR=─┬─3──┬┘  └─,NJEPU=─┬─3──┬─┘  └─,OUTTRANS=─┬─1─┬─┘
           └─nn─┘             └─nn─┘                 └─n─┘

►─┬──────────────────┬──┬──────────────────┬──┬────────────────────┬──────────►
  └─,OUTRECV=─┬─1─┬──┘  └─,PATH=nodename────┘  └─,PRTDEF=printdefault┘
            └─n─┘

►─┬──────────────────────┬──┬──────────────────────┬─────────────────────────►
  └─,PRTTSO=printdefault─┘  └─,PRTXWTR=printdefault─┘

►─┬──────────────────────┬──┬──────────────────┬─────────────────────────────►
  └─,PUNDEF=punchdefault─┘  └─,PWD=sendpassword1┘

►─┬──────────────────────┬──┬─────────────────┬───────────────────────────────►
  └─,PWCNTLE=─┬─SENDCLR──┬─┘  └─,RETRYCT=─┬─20──┬┘
             ├─SENDENC──┤                └─nnn─┘
             └─LOCALCHK─┘

►─┬─────────────────────┬──┬────────────────────┬──┬──────────────┬───────────►
  └─,SECSIGNON=─┬─NO──┬─┘  └─,SIG=sendpassword2──┘  └─SPART=spart──┘
              └─YES─┘

►─┬─────────────────┬──┬───────────────┬──┬───────────────────┬───────────────►
  └─,STREAM=─┬─1─┬──┘  └─,TLS=─┬─NO──┬──┘  └─,TYPE=─┬─BSC───┬──┘
            └─2─┘             └─YES─┘              ├─SNA───┤
                                                  └─TCPIP─┘

►─┬─────────────────────┬─────────────────────────────────────────────────►◄
  └─,XNAMEREQ=─┬─YES─┬──┘
             └─NO──┘
```
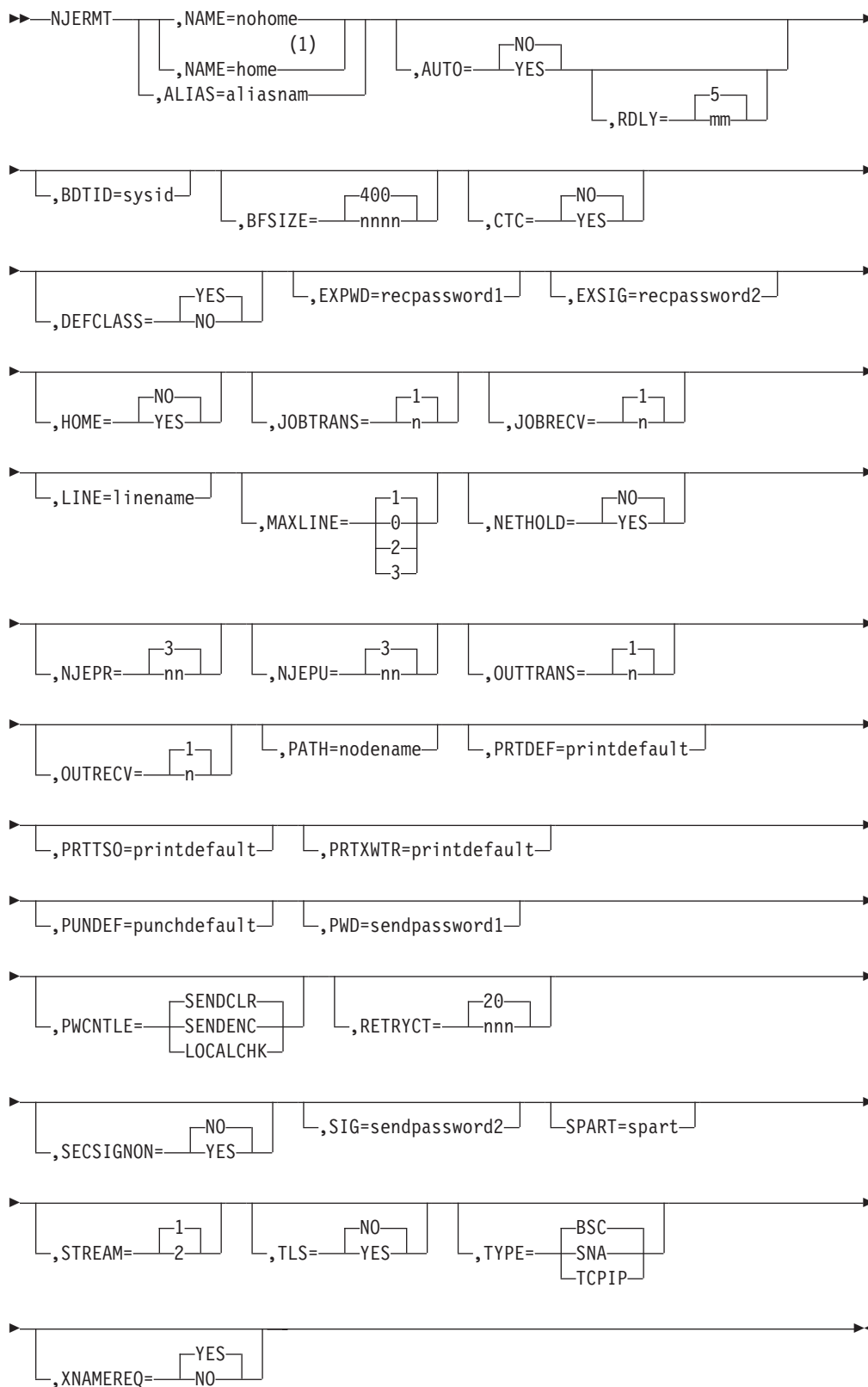
Notes:

1 You must specify HOME=YES.

Parameters

NAME=

Specifies a 1-to-8 character node name. No two nodes should have the same node name. The names that can be specified are:

- Node name
- Home name

Note:

1. You cannot specify the nodenames LOCAL or ANYLOCAL or ALL. They are reserved by JES3.
2. See the coding considerations in Table 47 on page 140 for information related to XCF group names.
3. If you change the TYPE parameter for a node name, you need to reroute any previously scheduled output for the node.

ALIAS=

Specifies an alias, an alternate name for the home node, such that work destined for this name is recognized as being destined for the home node.

Note:

1. You cannot specify the names LOCAL, or ANYLOCAL, or ALL. They are reserved by JES3.
2. The NAME= parameter and the ALIAS= parameter are mutually exclusive.

AUTO=

Specifies, for a directly-connected remote BSC node, whether JES3 is to automatically restart the line to the node if the remote node interrupts transmission. Specifying YES causes JES3 to automatically restart the line. If you specify NO or omit this parameter and the remote node interrupts transmission, the operator must restart the line. Code this parameter on the NJERMT statement that defines a directly-connected remote BSC node.

RDLY=

Specifies, in minutes, the amount of time that JES3 networking is to wait before it automatically restarts an interrupted line. Allowable values for mm are 0-99. Code this parameter on an NJERMT statement that defines a directly-connected remote BSC node.

BDTID=

Specifies the 1-8 character name of the MVS/BDT subsystem in your JES3 complex that is to process SNA/NJE transactions. This name must match the name specified on the MVS/BDT SYSID initialization statement.

Include this parameter only on the NJERMT statement that defines the home node. If this parameter is not included, JES3 sends SNA/NJE transactions to the default MVS/BDT subsystem that is named on the JES3 SYSID statement.

BFSIZ=

Specifies the buffer size to be used for communication with the directly-connected remote BSC node defined by this statement. The system programmer at the remote node must specify the same buffer size as you specify. Do not specify a buffer size of less than 400 bytes.

The maximum buffer size allowed is the size of the spool buffers (specified through the BUFSIZE parameter on the BUFFER statement) minus 46.

CTC=
Specifies the type of connection between the home node and the directly-connected remote BSC node defined by this statement. For a node that is connected through a channel-to-channel (CTC) adapter, specify YES. For a node that is connected through a leased line or a dial-up line, omit this parameter or specify NO. This parameter is ignored when TYPE=SNA is specified.

DEFCLASS=
Specifies whether inbound SYSOUT can be assigned a default SYSOUT class if the data set's characteristics, as specified by the sending node, do not match the characteristics of the specified SYSOUT class as defined on this, the receiving node, on the SYSOUT statement. "Characteristics" includes whether the SYSOUT is print or punch output, and whether it is held for TSO, held for external writer, or not held. This parameter is valid only when defining the home node or an alias of the home node.

DEFCLASS=YES
Indicates that default SYSOUT classes may be assigned. The PRTDEF, PUNDEF, PRTTSO, and PRTXWTR parameters can be used to specify the default classes.

DEFCLASS=NO
Indicates that default SYSOUT classes will not be assigned. The SYSOUT class specified by the sending node will be retained. The output will be held if the execution node indicated that the output should be held, or if the SYSOUT class is defined as held on the receiving node.

You might want to use DEFCLASS=NO, for example, so that you can submit jobs that produce output that is held for external writer, even if the job will execute on a non-JES3 node. If the SYSOUT class is defined on the receiving node as held for external writer, and DEFCLASS=NO is specified on the receiving node, then the output will be held.

EXPWD=
Specifies a 1-8 character password that the home node expects to receive from the directly-connected remote BSC or TCP/IP node defined by this statement. This password allows the remote node to start the line to the home node.

For the remote node to be able to send the password, the system programmer at the remote node must also specify the password by coding PWD=sendpassword1 on the NJERMT statement that defines your node. If you omit this parameter, the remote node will be able to start the line without sending a password.

EXSIG=
Specifies a 1-8 character password that the home node expects to receive from the directly-connected remote BSC node defined by this statement. This password identifies the remote node that started a dial-up line (with a dial-up line, several remote nodes can have the capability to start the same line). Once identified, the remote node can communicate with the home node.

The password, recpassword2, can be any character string. Code this password only for remote nodes that are connected to the home node by dial-up lines.

For the remote node to be able to send the password, the system programmer at the remote node must also specify the password by coding SIG=sendpassword2 on the NJERMT statement that he codes to define your

node. If you omit this parameter, any remote node that can start the line to the home node will be able to communicate with the home node.

HOME=

Specifies whether this NJERMT statement defines the home node or a remote node. If it defines the home node, code YES. For all other nodes, omit this parameter or code NO.

JOBTRANS=

Specifies the number of job transmitters defined for the node. This keyword is valid only for nodes that have a type of TCPIP. The value specified must be an integer from 1-7. The sum of JOBTRANS and OUTTRANS must not exceed 8. The default is 1.

JOBRECV=

Specifies the number of job receivers defined for the node. This keyword is valid only for nodes that have a type of TCPIP. The value specified must be an integer from 1-7. The sum of JOBRECV and OUTRECV must not exceed 8. The default is 1.

LINE=

Specifies the 1-8 character name of the line that connects the home node to the directly-connected remote BSC node defined by this statement. This name must match the name specified through the JNAME parameter on the DEVICE statement that defines the line. When the operator starts the line, he can override the name you have specified with this parameter. If you omit the LINE parameter, the operator must specify a line name when starting the line.

MAXLINE=

Specifies the maximum number of lines that the operator can start to the directly-connected remote BSC node defined by this statement. For an indirectly-connected remote node or the home node, specify 0.

NETHOLD=

Specifies whether incoming NJE SYSOUT data sets that appear to be NETDATA output should always be held for a TSO user to receive (NETHOLD=YES) or should be made available for JES3 writers to process if the destination is known to JES3 as a device (NETHOLD=NO). This parameter is valid only when defining the home node by specifying HOME=YES on the initialization statement.

NJEPR=

Specifies the number (1-99) of logical network printers you want generated for the home node. Code this parameter on the NJERMT statement that defines the home node.

NJEPU=

Specifies the number (1-99) of logical network punches you want generated for the home node. Code this parameter on the NJERMT statement that defines the home node.

OUTTRANS=

Specifies the number of output transmitters defined for the node. This keyword is valid only for nodes that have a type of TCPIP. The value specified must be an integer from 1-7. The sum of JOBTRANS and OUTTRANS must not exceed 8. The default is 1.

OUTRECV=

Specifies the number of output receivers defined for the node. This keyword is valid only for nodes that have a type of TCPIP. The value specified must be an integer from 1-7. The sum of JOBRECV and OUTRECV must not exceed 8. The default is 1.

PATH=

Specifies the name of the first node in the path to an indirectly-connected node. Code this parameter on the NJERMT statement that defines the indirectly-connected node.

If you omit this parameter, JES3 networking assumes the home node and the remote node are directly connected.

PRTDEF=

Specifies the print class default for networking output received at the home node. If you omit this parameter, JES3 networking assumes print class A. This parameter is valid only when defining the home node (that is, when you also specify HOME=YES on this initialization statement) or an alias of the home node (that is, when you define the node name using the ALIAS= parameter on this initialization statement).

PRTTSO=

Specifies the TSO data set default class for networking output received at the home node. If you omit this parameter, JES3 uses the class specified on the PRTDEF parameter. This parameter is valid only when defining the home node (that is, when you also specify HOME=YES on this initialization statement) or an alias of the home node (that is, when you define the node name using the ALIAS= parameter on this initialization statement).

PRTXWTR=

Specifies the external writer data set default class for networking output received at the home node. If you omit this parameter, JES3 uses the class specified on the PRTDEF parameter. This parameter is valid only when defining the home node (that is, when you also specify HOME=YES on this initialization statement) or an alias of the home node (that is, when you define the node name using the ALIAS= parameter on this initialization statement).

PUNDEF=

Specifies the punch class default for networking output received at the home node. If you omit this parameter, JES3 networking assumes punch class B. This parameter is valid only when defining the home node (that is, when you also specify HOME=YES on this initialization statement) or an alias of the home node (that is, when you define the node name using the ALIAS= parameter on this initialization statement).

PWD=

Specifies a 1-8 character password that the home node must send to the directly-connected remote BSC or TCP/IP node defined by this statement. This password allows the home node to start the line to the remote node.

If the remote node is expecting a password and you omit this parameter or code it incorrectly, the home node will be unable to start the line. If the remote node is not expecting a password and you code this parameter, the remote node ignores the password and allows the home node to start the line.

PWCNTL=

Specifies whether you want passwords sent to the remote node encrypted (SENDENC), without encryption (SENDCLR), or verified locally (LOCALCHK). If you select password encryption, user verification is

performed at the remote node only. If you select local verification, user verification is performed at the local node and no password is sent to the remote node.

JES3 uses a security product, such as RACF, to validate job passwords for NJE. If you specify PWCNTL=LOCALCHK and RACF is not installed or it is inactive on your local node, password validation is performed only at the execution node.

RETRYCT=
Specifies the number (1-300) of attempts (retries) that a node makes to successfully transmit a buffer of data before terminating the line to a directly connected remote BSC node. The most common error detected, an adaptor timeout, takes approximately three seconds to detect (for example, if you specify a retry value of 20, JES3 will terminate the line after approximately 1 minute). Specifying a larger value allows you to maintain communication during events that can cause extensive timeouts, such as remote dumps. JES3 ignores this parameter if you specify CTC=YES.

SECSIGNON=
Specifies that a secure signon protocol will be used which uses an encryption key that is stored in the security product.

SIG=
Specifies a 1-to 8-character password that the home node must send to the directly-connected remote BSC node defined by this statement. Code this password only if the home node and the remote node are connected by a dial-up line.

If the remote node is expecting a password and you omit this parameter or code it incorrectly, the home node will be unable to communicate with the remote node. If the remote node is not expecting a password and you code this parameter, the remote node ignores the password and allows communication with the home node.

SPART=
Specifies the spool partition that JES3 is to use for inbound NJE stream. The partition name must match the partition name specified on one of the SPART statements. To accept the default spool partition for inbound NJE stream, omit this parameter. If you specify a partition name that has not been defined on an SPART statement, JES3 will ignore this parameter and use the default spool partition. If you specified an invalid subparameter, JES3 uses the parameter default. You cannot specify this parameter in alias nodes.

STREAM=
Specifies the number of concurrent data streams that JES3 networking is to transmit on one line between the home node and the directly-connected remote BSC node defined by this statement.

Note: STREAM=2 is not allowed for directly connected, remote BSC nodes, running RSCS under VM.

TLS=
Indicates whether the Transport Layer Secure facility will be used by any socket that is used to communicate with this node.

TYPE=
Specifies the networking protocol to be used for communicating with a directly-connected remote node. Include this parameter only when defining a directly-connected remote node.

> **BSC**
> > Specifies a BSC networking protocol.
>
> **SNA**
> > Specifies a SNA networking protocol.
>
> **TCPIP**
> > Specifies a TCP/IP networking protocol.
>
> **XNAMEREQ=**
> > Specifies whether inbound SYSOUT can be held for processing by an external writer if no external writer name was supplied by the sending node. This parameter is valid only when defining the home node or an alias of the home node.
> >
> > **XNAMEREQ=YES**
> > > Indicates that an external writer name must be provided for inbound SYSOUT to be held for external writer. Inbound SYSOUT with no external writer name will be put on the writer queue or held for TSO, depending on what was specified at the sending node, and may be assigned the default SYSOUT class from the PRTDEF, PUNDEF, or PRTTSO parameter.
> >
> > **XNAMEREQ=NO**
> > > Indicates that an external writer name is not required for inbound SYSOUT to be held for external writer. Inbound SYSOUT will be held for external writer if the SYSOUT class is defined with HOLD=EXTWTR and the sending node indicated that the output is held for external writer.
> >
> > **Note:** The sending node must be running JES3 in order to designate the SYSOUT as held for external writer without providing an external writer name.

Examples

Example 1: The following example defines a home node and a remote node in a BSC job entry network. The DEVICE statement defines the CTC connection between the remote node and the home node.

```
NJERMT,NAME=NODE1,HOME=YES,MAXLINE=0
NJERMT,NAME=NODE2,LINE=LINE1,CTC=YES,TYPE=BSC
DEVICE,DTYPE=NJELINE,JNAME=LINE1,JUNIT=(207,SY1,TP)
```

Example 2: The following example defines a home node and a remote node in a SNA job entry network.

```
NJERMT,NAME=NODE3,HOME=YES,BDTID=SYSA1
NJERMT,NAME=NODE4,TYPE=SNA
```

Example 3: The following example defines a home node and an alias in either a BSC or SNA job entry network.

```
NJERMT,NAME=NEWYORK,HOME=YES
NJERMT,ALIAS=BROOKLYN
```

OPTIONS (JES3 Options)

Use the OPTIONS initialization statement to specify:
- The type of MVS system dump to be taken, if needed.
- Whether a dump should be taken when a termination condition exists.
- The job numbering limits for JES3 jobs.
- Whether you want the writer output multitasking facility enabled or disabled.

- The number of scheduler elements needed to support the largest job that will be run in the JES3 complex.
- The signalling scope of ENF 70 events.
- Whether to allow duplicate TSO/E logons across mutliple systems in the JES3 complex.

Statement Summary

Table 48. OPTIONS Summary

Variable	Value
Required/Optional Statement	Optional

Statement Default	`OPTIONS,DUMP=PRDMP,DUMPLINS=24576,`
	`WANTDUMP=YES,LIMIT=03,INTERVAL=10,`
	`INTRDR=000020,JOBNO=(1,9999,9999),`
	`MT=OFF,SE=10,DUPJOBNM=NO,`
	`XCFGRPNM=NONE,JOBTRACK=SYSPLEX,`
	`DUPLOGON=NO`

Placement in Initialization Stream	This statement must precede the ENDJSAM statement.
Coding Considerations	• Only one OPTIONS statement should be included in an initialization stream. If more than one is included, the parameters explicitly specified on the last OPTIONS statement dominate. • You can suppress JES3 FAILSOFT dumps taken on the global using the JES3 dump suppression facility. To activate this facility, either omit the WANTDUMP parameter or specify WANTDUMP=YES on this statement. See "Recovery and Service Aids" in *z/OS JES3 Commands* for more information about using the JES3 dump suppression facility.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None

OPTIONS

Table 48. OPTIONS Summary (continued)

Variable	Value

Restart or Command Modification	• Use the *MODIFY,CONFIG command to dynamically change the following keywords:
	  – DUMPLINS
	  – DUPJOBNM
	  – DUPLOGON
	  – INTERVAL
	  – INTRDR
	  – JOBTRACK
	  – LIMIT
	  – MT
	  – WANTDUMP
	
	• Warm or cold start for all parameters except the SE parameter. Use a cold start to change the value of the SE parameter. If you do not change internal job numbering (using the JOBNO parameter), JES3 uses the next available job number.
	
	• Hot start with refresh for all parameters except SE and XCFGRPNM. Use a cold or warm start to change XCFGRPNM.
	
	If you change the JOBNO parameter during a hot start with refresh such that jobs are deleted, and no IPL is being performed, it is your responsibility to make sure that no jobs that are being deleted are active on the main. JES3 issues messages IAT4131 and IAT4133 for all jobs that are deleted by a change in the JOBNO parameter. You can ignore these messages for active jobs provided that for every active job that is deleted, the processor on which the job was running is IPLed.
	
	If you do not IPL the processor on which jobs to be deleted are active, you must either wait for these active jobs to end or cancel them. The active jobs must end before you perform this hot start with refresh.
	
	When, during a hot start with refresh, JES3 detects an active job that is about to be deleted, JES3 determines if the processor in question is still active and, if so, issues messages IAT3101, IAT2061, and IAT2064 (IAT3062 is issued only in error cases). JES3 issues these messages only once per processor. See *z/OS JES3 Messages* for an explanation of these messages. When IAT2061 and IAT2064 are issued, the processor must be IPLed in order to continue the hot start with refresh; a CANCEL reply is accepted but will abend JES3.
	
	• Use the *MODIFY,X,D=INTRDR command to change the INTRDR parameter.
	• Use the *MODIFY,MT command to change the MT parameter.
	• Use the *MODIFY,WANTDUMP= (or *MODIFY,WDMP=) command to change the WANTDUMP parameter.
	• Use the *MODIFY Q,DUPJOBNM= to change the DUPJOBNM parameter.
	
	Note: The NAME parameter on the NJERMT statement that defines HOME=YES is the default for the XCFGRPNM parameter on the OPTIONS statement during a warm or cold start. If the home node is changed during a hot start with refresh and the XCFGRPNM parameter is not specified, the value of XCFGRPNM that was determined from the home node definition during the last warm or cold start remains in effect.

Syntax

```
►►─OPTIONS─┬───────────────────────────────┬─┬──────────────┬──►
           └─,DOTPOOL=─(─┬─────────┬─┬────────┬─)─┘ └─,DUMP=─PRDMP─┘
                         └─primary─┘ └─,total─┘
```

```
►─┬──────────────────┬─┬─────────────────┬─┬────────────────────┬──►
  │          ┌─NO──┐  │ │         ┌─NO──┐ │ │            ┌─24576─┐ │
  └─,DUPJOBNM=┴─YES─┘  └─,DUPLOGON=┴─YES─┘ └─,DUMPLINS=─┴─nnnnnn─┘
```

```
                  ┌─YES─┬─,LIMIT=─┬─3─────┬─,INTERVAL=─┬─10───────┬──┐
                  │     │         ├─limit─┤            ├─interval─┤  │
►─,WANTDUMP=─┤     │     │         └─0─────┘            └─0────────┘  ├──►
                  ├─NO──┴───────────────────────────────────────────┤
                  └─ASK───────────────────────────────────────────────┘
```

```
►─┬───────────────┬─┬────────────────────────────────────┬──►
  │       ┌─20──┐  │ └─,JETPOOL=─(─┬─────────┬─┬────────┬─)─┘
  └─,INTRDR=┴─nnn─┘              └─primary─┘ └─,total─┘
```

```
►─┬──────────────────────────────────────────────────┬──►
  │         ┌─1──────┐   ┌─9999────┐   ┌─9999───┐     │
  └─,JOBNO=─(─┴─lowest─┘ ,─┴─highest─┘ ,─┴─joblim─┘─)─┘
```

```
►─┬──────────────────────┬─┬───────────┬──►
  │          ┌─SYSPLEX─┐  │ │     ┌─OFF─┐ │
  └─,JOBTRACK=┼─JGLOBAL─┤  └─,MT=─┴─ON──┘
  │          └─OFF─────┘  │
```

```
►─┬────────────────────────────────────┬─┬────────────┬──►
  └─,OSTPOOL=─(─┬─────────┬─┬────────┬─)─┘ │      ┌─10─┐ │
               └─primary─┘ └─,total─┘      └─,SE=─┴─nn─┘
```

```
►─┬────────────────────────────────────┬─┬──────────────────────┬──►◄
  └─,SEEPOOL=─(─┬─────────┬─┬────────┬─)─┘ └─,XCFGRPNM=groupname─┘
               └─primary─┘ └─,total─┘
```
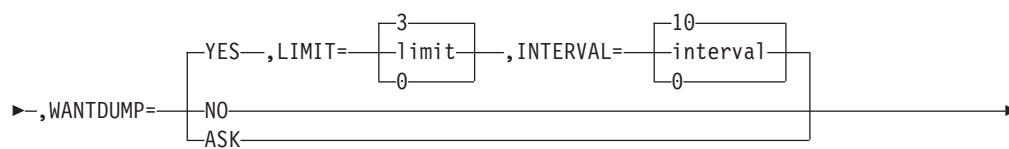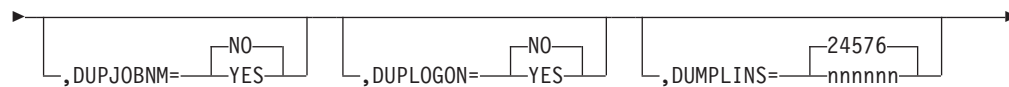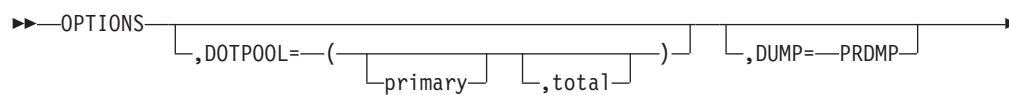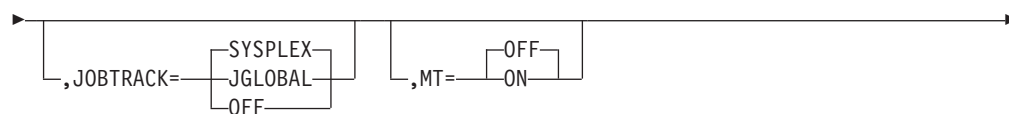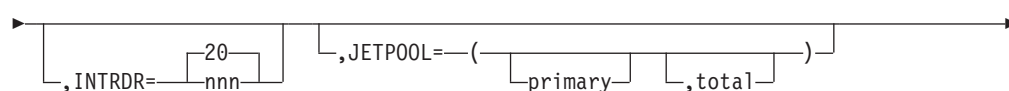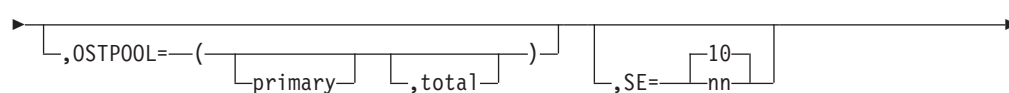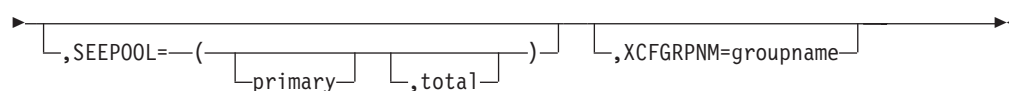
Parameters

DOTPOOL=

Specifies the size of the DOT pool in thousands of cells. The DOT pool represents all Data Set Output Tables (DOT) in use by all jobs in JES3.

The values *primary* and *total* define the primary or total pool size in thousands of cells. You can use the output of the *INQUIRY C,DOTPOOL command to gauge the values that need to be specified.

If no *primary* value is specified, the primary size is set to 95% of the maximum number of jobs allowed in the system. If no *total* value is specified, the total is set to 60,000,000 and the secondary extent size is calculated based on a total of 16 secondary extents.

If the *total* value is specified, the difference between the total and primary size will be divided into a maximum of 16 extents and the extent size rounded off to the nearest 1,000. An information message (IAT3211) is issued when the total size is rounded off to the nearest multiple of 1,000.

The maximum value that can be specified for the primary is 2000 thus limiting the pool to 2,000,000 entries. The maximum that can be specified for the total pool size is 60000 thus limiting the pool size to 60,000,000 entries.

DUMP=

Indicates the type of MVS system dump to be taken in the event of an abnormal termination of JES3 or program check. The JES3 control blocks, if written, are formatted and always written to the JESABEND data set.

PRDMP

Specifies that a dump of main storage is to be written to the MVS SYS1.DUMPxx data set. To print this dump, use the MVS interactive problem control system (IPCS).

If you specify an invalid subparameter, JES3 uses the parameter default.

DUPJOBNM=

Indicates whether multiple batch jobs with the same name can be active in the MAIN SE.

YES

Specifies that multiple batch jobs with the same name are allowed to be scheduled for MAIN.

Use the Modify command, *MODIFY,Q,DUPJOBNM= , to change the value. The result of the command is checkpointed which effectively overrides the parameter until the next warmstart, coldstart or hotstart with refresh. See *z/OS JES3 Commands* for a detailed description of the command.

NO Specifies that only one batch job of a certain name may be active in MAIN. DUPJOBNM=NO is the default keyword value.

If you specify an invalid subparameter, JES3 uses the parameter default.

DUPLOGON=

Indicates whether duplicate TSO/E logons across multiple systems in the JES3 complex are allowed.

YES

Specifies that a TSO/E logon for a specific user ID can be active on each system in the JES3 complex.

NO Specifies that only one instance of a TSO/E logon for a specific user ID can be active in the JES3 complex. NO is the default.

If you specify an invalid subparameter, JES3 uses the parameter default.

DUMPLINS=
Specifies the maximum number of lines to be printed in a formatted dump. The maximum value allowed is 999999.

WANTDUMP=
Indicates the action taken when a JES3 failure condition occurs.

YES
Specifies that a dump should be taken when a failure occurs.

LIMIT
The maximum number of failures within the interval before JES3 temporarily changes to WANTDUMP=ASK. The acceptable value is a number between 2 and 10 or a zero. The default value is 3. Zero (0) indicates no limit will be used.

INTERVAL
A time period, in minutes, that will be used as the basis for the limit. The interval is a sliding window that ends at the time of the latest JES3 failure. The acceptable value is a number between 2 and 60 or a zero. The default value is 10. Zero (0) indicates no limit will be used.

If you run with WANTDUMP=YES, JES3 will override it by temporarily changing to WANTDUMP=ASK if more than LIMIT failures occur within the previous INTERVAL minutes.

NO Specifies that no dump should be taken when a failure occurs.

ASK
Specifies that, when a failure occurs, the operator is to be given the choice of specifying whether a dump is to be taken.

If you specify an invalid subparameter, JES3 uses the parameter default.

INTRDR=
Specifies the maximum number of internal readers that can be active concurrently. Specifying too high a value can cause a shortage of JSAM buffers. You can specify any value between 1 and 999 inclusive for the variable *nnn*.

If you specify an invalid subparameter, JES3 uses the parameter default.

JETPOOL=
Specifies the size of the JET pool in thousands of cells. The JET pool represents all JDS buffers in use by all jobs in JES3.

The values *primary* and *total* define the primary or total pool size in thousands of cells. You can use the output of the *INQUIRY C,JETPOOL command to gauge the values that need to be specified.

If no *primary* value is specified, the primary size is set to 95% of the maximum number of jobs allowed in the system. If no *total* value is specified, the total is calculated based on the total storage size of 2,147,483,648. This storage size, after subtracting the primary pool storage, is divided by the cell size to get the remaining number of cells. That amount is then divided by the number of cells in the primary extent to arrive at the number of equally sized secondary extents.

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If the *total* value is specified, the difference between the total and primary size will be divided into a maximum of 16 extents and the extent size rounded off to the nearest 1,000. An information message (IAT3211) is issued when the total size is rounded off to the nearest multiple of 1,000.

The maximum value that can be specified for the primary is 640 thus limiting the primary pool to 640,000 entries. The maximum that can be specified for the total pool size is 10000 thus limiting the pool size to 10,000,000 entries.

JOBNO=

Indicates a specific range of numbers for JES3 to assign to jobs that enter the JES3 complex. There must be at least five job numbers in this range. When the end of the range is reached, numbering resumes at the beginning of the range, skipping those numbers that are assigned to jobs still in the system. If all job numbers are assigned, JES3 suspends processing and issues a message that informs the operator that no job numbers are available. Note that JES3 can assign incoming jobs with job numbers higher than the number of jobs that input service can actually process. These jobs are pending input service, and are processed when buffers become available.

lowest

Specifies a number within the range 1 to 999999 to indicate the lowest job number. This number must be at least 17 job numbers lower than the value of 'highest' in the range.

highest

Specifies a number within the range 18 to 999999 to indicate the highest job number. This number must be at least 17 job numbers higher than the value of 'lowest' in the range.

joblim

Specifies the maximum number of jobs that may be in the JES3 complex at any given time (within the range 1 to 999999).

JES3 uses as the actual job maximum the **smaller** of the following values:

- The *joblim* value
- The value obtained by the calculation: highest – lowest + 1
- The number of job control table (JCT) entries that will fit in the JCT data set (*z/OS JES3 Initialization and Tuning Guide* provides information about how to determine this number).

If you lower the upper end of the job number range or increase the lower end of the job number, jobs that are in the system and were previously assigned job numbers outside the new range are lost. For example, assume you have specified 1-50 as the range of job numbers and JES3 has assigned numbers 1-35. You now change the range of job numbers to 1-30. Jobs with numbers 31-35 will be lost.

There is a way to avoid losing jobs when you change the upper end of the range using a warm start. Before making the change, execute the dump job (DJ) facility to save jobs that are in the job queue. After the change, again execute the dump job facility to restore these jobs to the job queue. See *z/OS JES3 Commands* for information about using the dump job facility.

JOBTRACK

Indicates the scope of ENF 70 events:

SYSPLEX

Specifies that ENF 70 events are signaled to listeners across all systems in the SYSPLEX. This is the default.

JGLOBAL

Specifies that ENF 70 events are signaled only to listeners on the JES3 Global.

OFF

Disables signaling of ENF 70 events.

If you specify a subparameter that is not valid, JES3 uses the parameter default (SYSPLEX).

MT=

Indicates whether JES3 is to turn the writer output multitasking facility on or off. To determine whether to turn the facility on or off, see the topic "Using the Writer Output Multitasking Facility" in *z/OS JES3 Initialization and Tuning Guide*.

ON Requests that JES3 enable the writer output multitasking facility. Specify ON only when the global is a multiprocessor.

OFF

Requests that JES3 turn off (disable) the writer output multitasking facility. Specify OFF when the global is a uniprocessor.

If you specify an invalid subparameter, JES3 uses the parameter default.

MT=

Indicates whether JES3 is to turn the writer output multitasking facility on or off. To determine whether to turn the facility on or off, see the topic "Using the Writer Output Multitasking Facility" in *z/OS JES3 Initialization and Tuning Guide*.

ON Requests that JES3 enable the writer output multitasking facility. Specify ON only when the global is a multiprocessor.

OFF

Requests that JES3 turn off (disable) the writer output multitasking facility. Specify OFF when the global is a uniprocessor.

If you specify an invalid subparameter, JES3 uses the parameter default.

MT=

Indicates whether JES3 is to turn the writer output multitasking facility on or off. To determine whether to turn the facility on or off, see the topic "Using the Writer Output Multitasking Facility" in *z/OS JES3 Initialization and Tuning Guide*.

ON Requests that JES3 enable the writer output multitasking facility. Specify ON only when the global is a multiprocessor.

OFF

Requests that JES3 turn off (disable) the writer output multitasking facility. Specify OFF when the global is a uniprocessor.

If you specify an invalid subparameter, JES3 uses the parameter default.

OSTPOOL=

Specifies the size of the OST pool in thousands of cells. The OST pool represents all OSE buffers in use by all jobs in JES3.

The values *primary* and *total* define the primary or total pool size in thousands of cells. You can use the output of the *INQUIRY C,OSTPOOL command to gauge the values that need to be specified.

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| If no *primary* value is specified, the primary size is set to 95% of the maximum number of jobs allowed in the system. If no *total* value is specified, the total size is calculated based on the total storage size of 2,147,483,648. This storage size, after subtracting the primary pool storage, is divided by the cell size to get the remaining number of cells. That amount is then divided by the number of cells in the primary extent to arrive at the number of equally sized secondary extents.

If the *total* value is specified, the difference between the total and primary size will be divided into a maximum of 16 extents and the extent size rounded off to the nearest 1,000. An information message (IAT3211) is issued when the total size is rounded off to the nearest multiple of 1,000.

The maximum value that can be specified for the primary is 1000 thus limiting the primary pool to 1,000,000 entries. The maximum that can be specified for the total pool size is 31000 thus limiting the pool size to 31,000,000 entries.

SE=
Specifies the maximum number of scheduler elements (SEs) that may be constructed for any job. The value chosen should equal the number of scheduler elements required to support the largest job (in terms of SEs) to be run in the complex. A number between 10 and 90 may be specified. This specification is used to calculate the maximum size for a JCT and its SEs (JCT record size).

SEEPOOL=
Specifies the size of the SEE pool in thousands of cells. The SEE pool represents all SAPI Exclusion Elements (SEE) in use by JES3.

The values *primary* and *total* define the primary or total pool size in thousands of cells. You can use the output of the *INQUIRY C,SEEPOOL command to gauge the values that need to be specified.

If no *primary* value is specified, the primary size is set to the primary value of the OST pool (whether specified on OSTPOOL or calculated as a default). If no *total* value is specified, the total is set to the total size of the OST pool (whether specified on OSTPOOL or calculated as a default).

If the *total* value is specified, the difference between the total and primary size will be divided into a maximum of 16 extents and the extent size rounded off to the nearest 1,000. An information message (IAT3211) is issued when the total size is rounded off to the nearest multiple of 1,000.

The maximum value that can be specified for the primary is 2000 thus limiting the primary pool to 2,000,000 entries. The maximum that can be specified for the total pool size is 60000 thus limiting the pool size to 60,000,000 entries.

XCFGRPNM=
Each complex in a sysplex is required to use a unique XCF groupname. The groupname must follow all XCF naming conventions. It must be 1-8 alphanumeric characters including $, # and @. The default is the node name defined on the NAME= keyword on the NJERMT initialization statement for the home node (HOME=YES specified), if one exists. It is recommended that the default be used unless it conflicts with an existing XCF groupname, or your home node name is not a valid XCF group name. This default takes effect only during a warm or a cold start. During a hot start with refresh, if the home definition is changed, the value of XCFGRPNM from the last warm or cold start remains in effect.

Example

In the following example, the numbers 1 to 20000 would be assigned to JES3 jobs, no more than 12000 jobs could be in the JES3 complex at any given time (assuming the size of the JCT data is large enough to accommodate 12000 jobs), the multitasking facility would be off, and the maximum number of scheduler elements would default to 10. In the event of an abnormal termination or program check, a dump of MVS JES3-related control blocks and the JES3 region will be written to the SYSUDUMP or SYSABEND data set. The formatted JES3 control blocks will be written to the JESABEND data set:

```
OPTIONS,JOBNO=(1,20000,12000)
```

OUTSERV (Output Service Defaults and Standards)

The OUTSERV initialization statement specifies default values and standards for the output service element (OSE) to be used on output devices; for example: printers, punches, or RJP (remote job processing). These defaults apply to every built OSE, regardless of the device that handles the output, provided other overrides do not take effect. For more information about override sequences for output data sets, see *z/OS JES3 Initialization and Tuning Guide*.

Statement Summary

Table 49. OUTSERV Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	OUTSERV,CARRIAGE=6,CB=N,CDSTOCK=5081, CHARS=GS10,FLASH=(NONE,255),FORMS=1PRT, MODIFY=(NONE,0),OUTLIM=16777215, OUTSVFCT=1,STACKER=C,TRAIN=PN,THRESHLD=-1, WS=(D,T,F,C,U,FL,CM,SS,PM),NPRO=90, SNAGROUP=NO,EXTOSENUM=YES
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	When any of the following parameters are specified, printed output is scheduled only for 3800 printers. • The FLASH and WS=FL parameters • The MODIFY and WS=CM parameters • The STACKER=S and WS=SS parameters
Security Usage	Use the FLASH parameter to print security classifications on 3800 output. Do not confuse the FLASH security classifications with RACF security labels which can also be printed on job output. If you are using both FLASH and RACF to print security classifications, ensure that their meanings agree and that you do not overlay the security label printed by PSF.
Performance Considerations	None
Initialization Stream Overrides	None. However, for information about output service overrides, see *z/OS JES3 Initialization and Tuning Guide*.
Restart or Command Modification	• Hot start with refresh for all parameters.

Syntax

```
►►─ OUTSERV ──────────────────────────────────────────────────────────►
        └─,CARRIAGE=─┬─6────────┬─┘   └─,CB=─┬─N─┬─┘
                     └─tapename─┘            ├─J─┤
                                             └─D─┘

►──────────────────────────────────────────────────────────────────────►
   └─,CDSTOCK=─┬─5081───┬─┘   └─,CHARS=─┬─GS10─────────────┬─┘
              ├─stocnum─┤               │    ┌─,◄──┐        │
              └─stocnam─┘               └─(──┴─idn─┴──)─────┘

►──────────────────────────────────────────────────────────────────────►
   └─,EXTOSENUM=─┬─YES─┬─┘   └─,FLASH=─(─┬─NONE─┬─,─┬─255───┬─)─┘
                └─NO──┘                  └─name─┘    └─count─┘

►──────────────────────────────────────────────────────────────────────►
   └─,FORMS=─┬─1PRT─────┬─┘   └─,MODIFY=─(─┬─NONE─┬─,─┬─0─┬─)─┘
            └─prntform─┘                   └─id───┘   ├─1─┤
                                                       ├─2─┤
                                                       └─3─┘

►──────────────────────────────────────────────────────────────────────►
   └─,OUTLIM=─┬─16777215─┬─┘  └─,OUTSVFCT=─┬─1──┬─┘  └─,SNAGROUP=─┬─NO──┬─┘
            └─limit────┘                 └─nn─┘                 └─YES─┘

►──────────────────────────────────────────────────────────────────────►
   └─,STACKER=─┬─C─┬─┘  └─,TRAIN=─┬─PN────┬─┘  └─,THRESHLD=─┬─-1────┬─┘
              └─S─┘              ├─ANY───┤                └─limit─┘
                                 └─train─┘

►──────────────────────────────────────────────────────────────────────►
   └─,WC=─(─┬─,◄─┬─)─┘   └─,WS=─┬─D,T,F,C,U,FL,CM,SS,PM─┬─┘
           └─c──┘              ├─CL,L,P────────────────┤
                               │      ┌─,◄─┐           │
                               └─(────┴─c──┴──)────────┘

►──────────────────────────────────────────────────────────────────────►◄
   └─,NPRO=─┬─90───┬─┘
          ├─NO───┤
          └─nnnn─┘
```
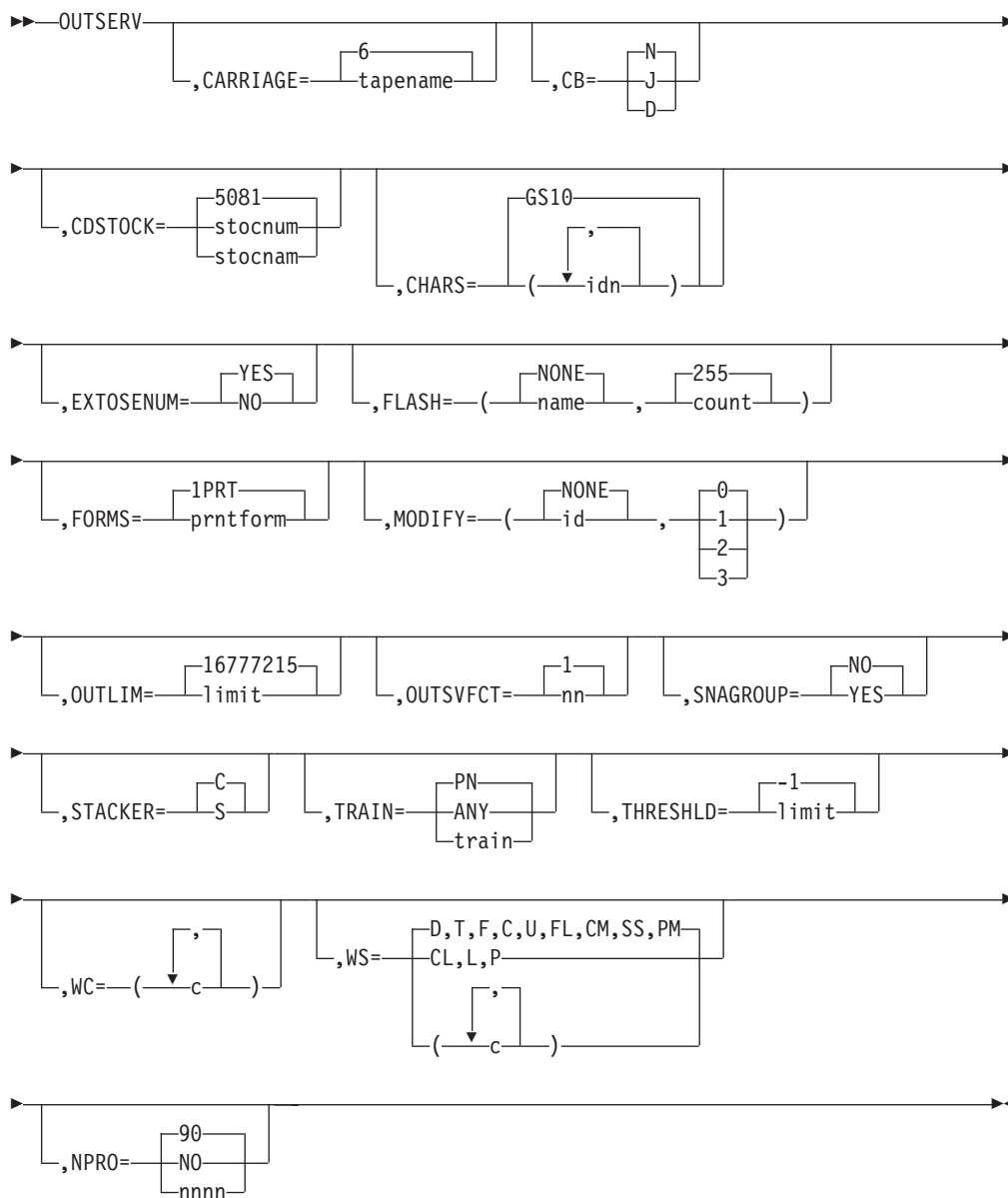
Parameters

CARRIAGE=

Indicates the specific name (1-to-8 characters) of the 1403 printer carriage tape or the FCB module that is to be the installation standard. FCB modules are in the SYS1.IMAGELIB data set. For 3211 printers, the FCB module is named FCB2, plus the first four characters of the carriage tape name. For 3800 printers, the FCB module is named FCB3, plus the first four characters of the carriage tape name. For more information about SYS1.IMAGELIB, refer to *z/OS DFSMSdfp Advanced Services*.

Note: If you are using the user exit IATUX23 and you are coding FCBs for use with JES3 defined printers that are other than 3800, then you must code a CHANNEL 12 in the FCB.

CB=

Specified for the 3800 printer only. This parameter specifies when the device's buffer is to be cleared. The buffer is cleared by the clear printer channel command.

D Indicates that the data set option is to be used. This causes output service to issue a clear-print channel command at the end of each data set. This causes a short pause at the end of each data set.

J Indicates that the job option is to be used. This causes output service to issue a clear-printer channel command only at the end of each job. This causes a short pause at the end of each job.

N Indicates that the device's buffer is not to be cleared unless required by a function. Maximum performance is obtained with CB=N. Examples of functions that require a clear printer command are:

- Loading new characters
- Requesting operator setup
- Waiting for work

When the device is in manual mode (M specified on *X, *R, or *S and M is specified in message IAT8562), a clear printer command is issued before each data set and CB has no effect.

If you specify an invalid subparameter, JES3 uses the parameter default.

CDSTOCK=

Indicates the stock name (1-to-8 characters) or stock number of the cards to be considered the installation standard. This parameter is analogous to the FORMS parameter for printer output.

CHARS=

Specifies the 1-to-4 character name(s) of the image to be set up on the printers that support character sets. Up to four names can be specified.

This parameter specifies default information for the OSE that can be used on printers that support character sets (for example, AFP printers).

The parameter default is GS10.

EXTOSENUM=

Indicates whether extended IATYOSE sequence numbers (numbers exceeding 65,535) are allowed to be created. EXTOSENUM=NO can be used during migration to the z/OS V1R9 level of JES3 to ensure that jobs do not create output that cannot be handled by earlier levels of JES3. See *z/OS Migration* for more information.

Note: Specifying EXTOSENUM=NO has no effect on output that has already been created. It does not prevent additional Output Scheduling Elements from being added to spool records that have already been created either. Therefore, in order to ensure that all output can be processed on down level JES3 systems, you must specify EXTOSENUM=NO the first time when a z/OS V1R9 JES3 global is IPLed.

FLASH=

Specifies the name (1-to-4 characters) of the forms flash cartridge to be used on the 3800 printer.

name

Specifies the name of the standard forms flash cartridge; the subparameter default is NONE.

count

Specifies the standard flash count. If NONE is specified, then this subparameter should not be specified. If FLASH=name is specified and the count subparameter is not specified, then 255 is the default.

FORMS=

Specifies the name of the printer forms (1-to-8 alphanumeric or national characters) to be considered the installation standard. This parameter is analogous to the CDSTOCK parameter for punched output.

MODIFY=

Specifies the module identifier and reference character to be used as the standard copy modification option for the 3800 printer.

id Specifies the name of the copy modification module to be used (one to four characters).

NONE

Specifies that the copy modification option is not being used.

0,1,2,3

Specifies the table reference character to be used with the copy modification option.

OUTLIM=

Specifies the default record limit for a SYSOUT data set. When this limit is exceeded, the installation SMF exit is entered. Upon return from the SMF exit, the job is either canceled or a new limit is used. The value of limit must be from 1 to 16777215. For more information concerning SMF exits, see *z/OS MVS Installation Exits*.

If you specify an integer greater than the maximum allowable, JES3 uses the parameter default. If you specify a negative integer or a non-numeric character, JES3 issues message IAT3245 and initialization terminates.

If you specify an invalid subparameter, JES3 uses the parameter default.

OUTSVFCT=

Specifies the number of OUTSERV FCTs that are available to process jobs from the output service queues. The valid values for OUTSVFCT are 1 to 10. The default is one.

Defining more than one FCT allows output service to process multiple jobs simultaneously and prevent bottlenecking. IBM recommends that you specify at least three OUTSERV FCTs.

SNAGROUP=

Specifies whether JES3 group DSISO data sets are destined for SNA/NJE or TCP/IP nodes.

YES

Specifies that JES3 group DSISO data sets, if possible, are destined for SNA/NJE or TCP/IP nodes. Specifying YES allows the receiving node to assign a single job number to a group of data sets that were produced by one job at the originating node.

Specifying SNAGROUP=YES also causes JES3 to always group non-spinoff DSISO data sets (TYPE=DSISO specified on the SYSOUT initialization statement for the SYSOUT class). However, spinoff data sets, such as those produced by specifying FREE=CLOSE in the JCL, are sent separately because they are sent when the data set is closed rather than at the end of the job.

Attention: Specifying SNAGROUP=YES prevents JES3 from releasing spool space used for DSISO data sets until all of the job's data sets have been sent to the specified node.

NO Specifies that JES3 send DSISO data sets destined for SNA/NJE or TCP/IP nodes as separate data sets. Specifying SNAGROUP= NO allows JES3 to release spool space as soon as a data set is sent.

STACKER=
Specifies which stacker option is to be standard for a 3800 printer.

C Specifies that output is to be placed in the continuous forms stacker. If no 3800 described as BTS feature, STACKER=C is forced by initialization.

S Specifies that output is to be placed in the sheet stacker, where offset stacking is automatically performed.

If you specify an invalid subparameter, JES3 uses the parameter default.

TRAIN=
Indicates the installation standard printer train or band.

train
Specifies the name (1 to 4 characters) of a specific printer train or band to be used as the installation standard.

ANY
Specifies that any printer train or band that is mounted is acceptable, provided the printer can otherwise fulfill processing requirements.

PN Specifies the PN Printer train.

THRESHLD=
Specifies the default maximum size for a SYSOUT data set. The maximum value that may be specified is 99999999. THRESHLD=-1, which is the default, indicates that no threshold processing is in effect. This parameter is used by output service to build and queue OSEs for writers. The THRESHLD parameter assumes that the data set size is the number of records in the data set multiplied by the number of copies. Data sets that equal or exceed the value specified are queued as separate piece of work for output service writers.

A job that has work created in this manner is eligible to be concurrently processed by several output service writers that have the same processing characteristics. Normally, similar pieces of work for a job are assigned to the same writer. This parameter should be used when the user wants to permit concurrent printing or punching of multiple copies of data sets or a large volume of data sets for a job on several output service writers. This parameter is ignored when the copy distribution for a data set is 3000 or more.

Example: Job ABC generates three SYSOUT data sets with similar processing characteristics (such as same forms, carriage). Assume that data set A is 3000 records and the user needs 2 copies; data set B is 10000 records and the user needs 1 copy; data set C is 1000 records and the user wants 10 copies.

If the THRESHLD for the job is 20,000, then the first writer to select the job is assigned all three data sets.

If the THRESHLD for the job is 10000, then the first writer to select the job is only assigned data set A. Data sets B and C are eligible for selection by another writer.

WC=
Specifies the writer classes. This parameter indicates SYSOUT classes in the

OUTSERV

order they are processed by the output service writers. Data sets for a class not specified will not be selected. The value of c specifies a valid SYSOUT class (A-Z, 0-9) that appears as a SYSOUT parameter on a DD statement. If a list of classes is specified, separate each class by a comma.

This parameter is effective only for writers that have a writer selection list that includes CL, the SYSOUT class. The list could have been specified explicitly or by default.

JES3 uses a null list as the parameter default and selects data sets, regardless of class, to be processed by output service writers.

WS=

Specifies the writer selection criteria. The value of c indicates the items JES3 output service checks, in order of importance, when selecting a data set for output processing. (These WS parameter values remain in effect over a hot start.) Specify the selections in order of importance and separate specifications with a comma.

Selection Character
>   **Meaning**

C   Carriage tape or FCB (printers only)

CL   SYSOUT class

CM   Copy modification (3800 printer only)

D   Data set destination

F   Forms requested

FL   Flash (3800 printer only)

L   Limit scheduling (line, page or record)

SS   Stacker (3800 printer only)

P   Data set priority

PM   Processing mode

T   Specific device type requested

U   Character arrangement table name (CHARS) or train image (UCS).

All the selection characters are valid for printer output. C is not valid for punched output.

Attention: JES3 does not take any action (such as issue mount messages or load FCB and UCS) if you omit printer and punch setup characteristics on this parameter. For example, a job that requires special forms may print on the wrong form if you omit forms as a selection criterion.For additional information on the relationship of the WS= settings to the JCL of your installation job workload, see Appendix A, "Work Selection for JES3," on page 231.

NPRO=

Specifies the non-process run-out interval for a channel-attached AFP printer.

nnnn

Specifies the number of seconds the printer will wait for more data before forcing out the already-printed pages. The value specified must be between 0 and 9999, inclusive.

NO   Specifies that the run-out interval will not be used for this printer.

If you specify an invalid subparameter, JES3 uses the parameter default.

Examples

This example specifies default values and standards for printers and punches as follows:

- The carriage tape name is 6
- The writer selection criteria are, in order of importance, data set priority (P), SYSOUT class (CL), processing mode (PM), limit scheduling (L), and data set destination (D)
- The run-out interval is 75 seconds

All other parameters use their default values.

```
OUTSERV,CARRIAGE=6,WS=(P,CL,PM,L,D),NPRO=75
```

RESCTLBK (Resident Control Block)

Use the RESCTLBK initialization statement to preallocate storage for the highly used JES3 function control table (FCT) entries.

Statement Summary

Table 50. RESCTLBK Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	`RESCTLBK,FCT=0`
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	None
Security Usage	None
Performance Considerations	Using the RESCTLBK can reduce GETMAIN overhead and the associated paging overhead.
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►──RESCTLBK──────────────────────────────────────────────►◄
             │              ┌─0──┐          │
             └─,FCT=──┴─nnn─┘
```

Parameters

FCT=

Indicates the number of FCT entries to be preallocated. The value of nnn can be from 1 to 999. When determining the nnn value consider:

- One FCT entry per active JES3 DSP
- Each FCT entry is 600 bytes long

If you specify an invalid subparameter, JES3 uses the parameter default.

Example

In the following example, enough FCT entries are preallocated for 30 DSPs. After 30 DSPs are active, JES3 allocates more FCT entries as they are required.

```
RESCTLBK,FCT=30
```

RESDSN (Resident Data Set Names)

Use the RESDSN statement to name permanently resident data sets for which JES3 is to bypass setup processing. JES3 bypasses setup processing whenever the named data sets appear as cataloged references (no UNIT or VOLUME parameters are specified) on the DD statement of a job.

Statement Summary

Table 51. RESDSN Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. You cannot continue the RESDSN statement. If the dsname subparameters will not fit on one statement, specify the remaining subparameters on another statement.
	2. JES3 provides no data set integrity checking for data sets that appear on a RESDSN statement.
	3. JES3 does not check dynamically allocated data sets against the names specified on the RESDSN statement. To bypass integrity checks for a dynamically allocated data set, use the DYNALDSN statement.
	4. JES3 does not perform data set integrity processing for resident data sets. Therefore, do not specify data sets as resident unless the data set can be accessed from only one main or unless the user provides data set integrity. MVS provides data set integrity when a resident data set can be accessed from only one main.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	• Warm start or cold start for all parameters. • Hot start with refresh for all parameters. When you change the RESDSN statement, you should restart any C/I FSS that is active to incorporate the change.

Syntax

```
                                  ,
                            ┌───────────┐
►►──RESDSN─DSN=──(──dsname──┴──────────┴──)────────────────────────────►◄
                       └─dsname─┘
```
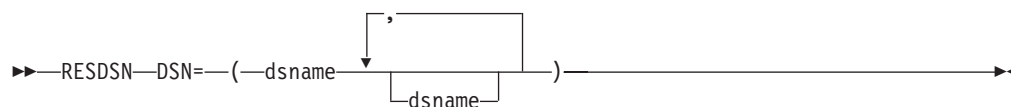
Parameters

DSN=

Specifies the names of permanently resident data sets for which JES3 is to bypass setup processing.

Example

The following example shows how to specify the data set names when they will not fit on one RESDSN statement.

```
RESDSN,DSN=(SYS1.PROCLIB,SYS1.MONTY.SIATLINK,SYS1.MACLIB)
RESDSN,DSN=(SYS1.SHIPPER.SIATLIB,SYS1.SVCLIB)
```

RJPLINE (BSC Remote Job Processing Line)

Use the RJPLINE initialization statement to define the characteristics of a single BSC line (and its respective adapter) that will be used by the JES3 global for remote job processing. You can also use this statement to assign a specific RJP work station, defined by the N parameter of an RJPTERM statement, to this line.

Statement Summary

Table 52. RJPLINE Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. One RJPLINE statement is required for every adapter to be accessed by RJP. For further information about RJP, see the RJP description in *z/OS JES3 Initialization and Tuning Guide*.
	2. The T parameter on this statement must match the N parameter on an RJPTERM statement and the JNAME parameter on a CONSOLE statement.
Security Usage	Use the password parameter (P) to specify a password used to protect the RJP line. This password must be used by any work station attempting to sign on to the defined line.
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, Warm start, or hot start with refresh for all parameters.

Syntax

```
►►──RJPLINE──,N=linename──,A=──┬──/devnum─────────────────┬──────┬────────┬──►
                               ├──devnum──────────────────┤      └,F=DIAL─┘
                               │        ┌──,─────┐         │
                               └─(──────▼─main─,─devnum──)─┘

►──┬────────┬─┬──────────┬─┬──────────┬─┬──────────┬─┬────────┬──►
   └,F=NTRS─┘ └,G=grpname┘ │    ┌─A─┐  │ │   ┌─Y─┐  │ └,O=AUTO─┘
                           └,I=─┴─B─┘─┘ └,I=─┴─N─┘─┘

►──┬────────────┬─┬──────────────────┬─┬────────────┬──►◄
   └,P=password─┘ │     ┌─2400─────┐  │ └,T=termname─┘
                  └,S=──┴─linespeed┘─┘
```

Parameters

N= Required to specify the name for this line up to 8 characters. It must be different from the N parameter of the RJPTERM statement.

A=[/]devnum
Specifies a device number (by 3-digit or 4-digit hexadecimal number). A slash (/) preceding the device number is not required. Device numbers can be specified by any of the following formats:

```
ddd
dddd
/ddd
/dddd
```

ddd or dddd represent a device number. If multiple mains exist, then this defines the same device identically on all mains. *ALL is not allowed as a main name.

A=(main,devnum[,...])
Specifies a main name and device number (by 3-digit or 4-digit hexadecimal number).

F= Used to indicate a dial feature for this line (DIAL) or the absence of a transparency feature for the line (NTRS). If both DIAL and NTRS are selected, both F parameters are specified, as shown previously.

In dedicated or leased line environments, transparency feature is assumed on terminals on this line if you omit this parameter.

DIAL
Indicates that the line is a switched line. Do not specify F=DIAL if the line is to be used for the transmission of output restricted to authorized remote terminals. If not specified, a dedicated (or leased) line is assumed.

NTRS
Indicates that the line does not have the transparency feature; if not specified, the transparency feature is assumed.

G= Indicates a line group name of up to 8 characters, which associates several lines. If you omit this parameter, eight blanks (no group name) are used.

I= Indicates the 1-character line interface.

A Refers to the first or only interface of the BSC communications adapter.

B Refers to the second interface of a BSC communications adapter having the dual communications interface feature.

If you specify an invalid subparameter, JES3 uses the parameter default.

I= Specifies the mode of operation.

Y Specifies the interrupt mode of operation.

N Specifies the noninterrupt mode of operation.

If you specify an invalid subparameter, JES3 uses the parameter default.

O= Indicates the line option to have the RJP line start automatically; the *START operator command is not required. If you omit this parameter, you must start the line manually using a JES3 *START command.

P= Provides password protection for this line. Password defines a line password up to 8 characters. This password must be used by any work station attempting to sign on to this line. If you omit this parameter, JES3 provides no password protection for this line.

S= Specifies a line baud rate up to 6 characters. If you specify an invalid subparameter, JES3 uses the parameter default.

T= Indicates a terminal to be assigned to this line. If this parameter is included, a /*SIGNON card must not be used. T specifies the name (up to 5 characters) of a nonprogrammable terminal. This name must also appear in the N parameter of an RJPTERM statement and JNAME parameter of a CONSOLE statement. The T parameter must not be specified when F=DIAL is specified.

Examples

Example 1: In the following example, the LINE01 is defined as having an adapter address 001, without the dual communications interface feature. The line is a 50K BPS leased line with transparency. It will be automatically started when RJP is called. No password is assigned to LINE01.

```
RJPLINE,N=LINE01,A=001,S=50000,O=AUTO,T=FUL50
```

Example 2: In the following example, LINE002B is defined as having an adapter address 002, with the second interface of the dual communications interface feature. It is a switched 2400-BPS line with transparency. The line must be started by the operator after RJP is called. Note that if another line specifies the same dual interface feature on line adapter 002, it cannot be active (started) concurrently on this line. Work stations must use the password, SECRET, to sign onto the line.

```
RJPLINE,N=LINE002B,A=002,I=B,F=DIAL,S=2400,P=SECRET
```

Example 3: In the following example, LINE01 is defined as adapter address 001, interface A. It is a 4800-BPS line with transparency. The line will be automatically started when RJP is called, and the work station named T2780 will be automatically signed on to it. No password is assigned to LINE01.

```
RJPLINE,N=LINE01,S=4800,O=AUTO,T=T2780,A=001
```

RJPTERM (BSC Remote Job Processing Terminal)

Use the RJPTERM initialization statement to define a single remote BSC work station to the JES3 system. This statement causes a default description to be provided for each work station device (printer, punch, or card reader) indicated by the PR, PU, or RD parameters along with the operating characteristics of the work

station. If the JES3 default characteristics for a remote printer or punch device are not acceptable, a DEVICE statement should be coded to indicate desired characteristics. If a work station is to have the facilities of a JES3 operator console, then a CONSOLE statement must be coded. "Parameters" on page 171 shows the DEVICE statement defaults and the RJP DEVICE parameters. "Parameters" on page 171 shows the RJP parameters on the CONSOLE statement.

Statement Summary

Table 53. RJPTERM Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. Use the CONSOLE statement to define console support at a remote work station. 2. Use the DEVICE statement to define remote printers and punches. (A DEVICE statement must not be specified for remote devices other than printers and punches.)
Security Usage	You can specify a SIGNON password using the P parameter. This password must be specified on the /*SIGNON statement used to establish a BSC RJP session. This parameter is ignored when RACF is used to control RJP logon passwords.
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh all parameters.

Syntax

```
►─┬─────────────────┬───┬──────────────┬───┬────────────────┬──►
  └─,PU=─┬──0──────┬─┘   └─,PUW=─┬──80───┬─┘   └─,RD=─┬──0────────┬─┘
         └─numofpun─┘            └─recsiz─┘            └─numofrdr──┘

►─┬───────────────┬───┬──────────┬───┬──────────┬──►◄
  └─,P=password───┘   │        ┌─Y─┐ │          ┌─N─┐
                      └─,CS=──┼─B─┤─┘  └─,SET=──┼─Y─┤
                              └─N─┘             ├─V─┤
                                                └─B─┘
```
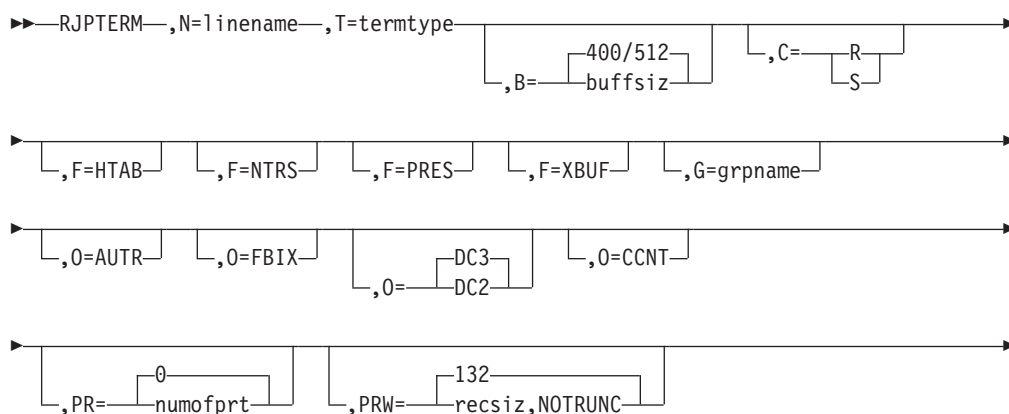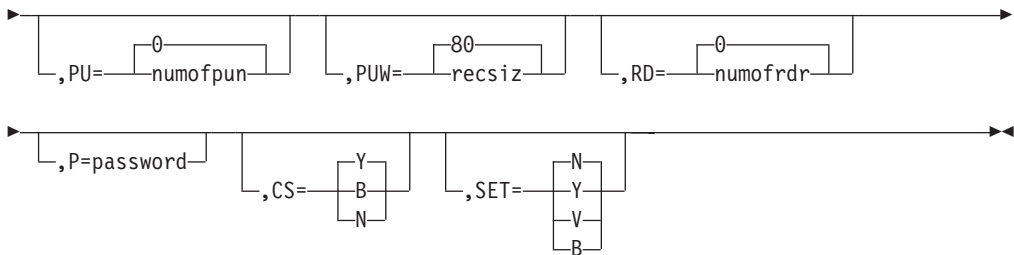
Parameters

Table 54. DEVICE Statement Defaults and Associated Parameters

Parameter	Default (By Device Type)	
	Printer	Punch
FORMS	YES,STANDARD	YES,STANDARD
CARRIAGE	YES,STANDARD	N/A
TRAIN	NO,STANDARD	N/A
XLATE	YES	N/A
BURST	YES	YES
HEADER	YES	YES
LINELIM	0+	0+
PAGELIM	0	0
PRMODE	LINE	LINE
DYNAMIC	YES	YES

Parameter	Usage
DTYPE=(RMT1403) or (RMT3211)	Required (Note 1)
JNAME	Required (Note 2)
FORMS	Optional (Note 3)
CARRIAGE	Optional
TRAIN	Optional
XLATE	Optional
BURST	Optional
HEADER	Optional
DYNAMIC	Optional
LINELIM	Optional
PAGELIM	Optional
PRMODE	Optional
JUNIT	Optional (Notes 3 and 4)
DGROUP	Ignore (Note 5)
XTYPE	Ignore
XUNIT	Ignore

RJPTERM

Parameter	Usage
Note:	
1. The DTYPE must be specified, and the first characters must be RMT. If remote printer FCB loading is desired, specify 3211 as the last 4 characters; any characters other than 3211 in the last positions will be ignored.	
2. The JNAME consists of an 8-character name, where characters 1 through 5 are the terminal name, characters 6 and 7 are PR or PU (for the device type), and the 8th character is a single digit (1 through 7). This digit must correspond to the device number specified during remote generation for the device being referenced.	
3. "Optional" indicates that the parameter may or may not be coded.	
4. The JUNIT parameter is meaningful for RJP printers and punches only for setting the device initially online or offline. If this parameter is omitted, the default setting is "initially online". When JUNIT is specified, you should specify a device number of NONE or code a "null" value as a place holder. The destination class is ignored.	
5. "Ignore" indicates that the parameter has no meaning for remote devices, and will be ignored.	

Table 55. CONSOLE Statement Parameters Associated with RJPTERM

Parameter	Default	Usage
TYPE=RJP		Required (Note 1)
JNAME=terminal name		Required
DEST (Note 2)		Required
LEVEL	00	Optional (Note 3)
LL	120/PRW=	Optional
MAIN		Rejected
UNIT		Rejected
Note:		
1. "Required" indicates that this parameter must be specified.		
2. Destinations MLG, OUTPUT, or TOTAL should not be routed to a remote console.		
3. "Optional" indicates that this parameter may be coded if the default is not acceptable.		

N= Required to indicate the name for this work station. This name must be 5 characters and cannot be the same as an N parameter specified on an RJPLINE or RJPWS statement.

> **Note:** IBM recommends that a TSO userid should not have the same name as an RJP workstation, group name, or device. This avoids ambiguity when routing inbound SYSOUT data sets.

T= Indicates a 4-character identifier specifying the type of work station. The valid types for this parameter are:

ID	Work Station
1130	1130 processor terminal
2770	2770 nonprogrammable terminal
2780	2780 nonprogrammable terminal
2922	2922 programmable terminal

3741 3741 nonprogrammable terminal. (See "3741 Restrictions and Limitations" on page 176 for additional information.)

3747 3747 nonprogrammable terminal

3780 3780 nonprogrammable terminal

M202 System/360, Model 20, Submodel 2, processor terminal

M205 System/360, Model 20, Submodel 5, processor terminal

S360 All System/360 Model 22 and above processor terminals

S370 All System/370 programmable terminals

SYS3 System 3, Model 10, processor terminal

In specifying termtype, the following terminals are specified as 2770s: 3771, 3772, 3773, 3774, and 3775. The 3776 and 3777-1 are specified as 3780s. The 3777-2 is specified as M205.

The value of the T parameter determines the default value for the C and B parameters.

B= Indicates the terminal buffer size in bytes. The value specified can be up to 4 numeric characters. For programmable terminals, the bufsize must correspond to the work station package. For nonprogrammable terminals, the default buffer value is used.

The default value for B is determined by the T parameter as shown below:

T Parameter
  B Default

1130 400

2770 512

2780 400

2922 400

3741 512

3747 512

3780 512

M202 400

M205 400

S360 400

S370 400

SYS3 400

For fixed buffer size devices, such as the 2780, the B parameter is forced to 400. If F=XBUF is specified, then B defaults to 256.

C= Indicates the type of console support for this work station. If the C parameter is specified, a CONSOLE statement should be specified also. If you omit a CONSOLE statement for this work station, a default JES3 message destination class of TP (teleprocessing) is assigned to the console. If a CONSOLE statement is found and the C parameter is not specified, then the default value for C is assumed.

R Applies to programmable terminals only. This subparameter indicates the presence of a real console.

S Applies to both programmable and nonprogrammable terminals. This subparameter specifies that regardless of any real console attached to this work station, the printer designated as PR1 is to be used as a simulated console output device.

If S is specified for a programmable terminal that has a real console, that console can still be used to enter console commands. However, all console output will be directed to the printer.

Parameter Default: The default value for C is determined by the T parameter as follows:

T Parameter	C Default
1130	R
2770	S
2780	S
2922	R
3741	S
3747	S
3780	S
M202	R
M205	R
S360	R
S370	R
SYS3	R

F=HTAB
Specifies that this terminal has the printer horizontal format control feature. This parameter is used to indicate a 2770, 2780, or 3780 with the horizontal format control feature.

If you omit this parameter, JES3 assumes that the terminal does not have this feature.

F=NTRS
Specifies that the terminal transparency feature is not present on this terminal.

If you omit this parameter, JES3 assumes that the terminal has the transparency feature.

F=PRES
Specified for a nonprogrammable terminal only, to indicate the blank compression/expansion feature for that terminal.

If you omit this parameter, JES3 assumes that the terminal does not have this feature.

F=XBUF
Specifies that a 2770 terminal has the extended buffer feature, that a 2780

terminal has the multirecord feature, or that a 3740 has the expanded communications feature. For a 2770, the B parameter must be specified large enough to incorporate this feature.

If you omit this parameter, JES3 assumes that the terminal does not have this feature.

G= Used for the groupname facility. This parameter associates this work station with a groupname. The groupname specified may be up to 8 characters.

If you omit this parameter, JES3 uses the terminal name specified in the N parameter.

O=AUTR
Indicates a work station option that provides the JES3 automatic call reader function in the local system. If the T parameter identifies a nonprogrammable terminal, this option is assumed; the O=AUTR parameter does not have to be specified.

O=BFIX
Indicates a work station option which specifies that the output buffers used by RJP must be dedicated, that is, obtained at OPEN time and freed at CLOSE.

O={DC2|DC3}
Indicates the punch select character to be used for remote 2770 or 3780 terminals. DC2 specifies device component position 2 on the terminal. When the 3777-1 is used as a 3780, the O parameter must indicate DC2. DC3 specifies device component position 3 on the terminal.

If you specify an invalid subparameter, JES3 uses the parameter default.

O=CCNT
Specifies, for 3740 terminals, the carriage control characters that should be sent to the remote printer. If the parameter is specified, the remote operator should load program buffer A before initiating printing.

PR=
Indicates the number of remote printers associated with this work station. This parameter specifies a single digit with a maximum value of 7. Nonprogrammable terminals can have a maximum of one printer.

PRW=
For programmable terminals, the value specified on the PRW parameter must not exceed the buffer size minus 16. The B parameter defines the buffer size. For nonprogrammable terminals, the value specified on the PRW parameter must not exceed the maximum print record size defined by the design of the specific printer. The component document for the printer defines the maximum print record size.

The NOTRUNC subparameter is only allowed when the PRW keyword is used for an 3700 device type. NOTRUNC specifies if trailing blanks should be sent to a D/T3780. If NOTRUNC is coded, then trailing blanks will be sent. Otherwise, trailing blanks will be suppressed.

PU=
Indicates the number of remote punches associated with this work station. This parameter specifies a single digit with a maximum value of 7. Nonprogrammable terminals can have a maximum of one punch.

JES3 will pad a blank card at the end of all punch files regardless of their punch type.

> **Note:** JES3 pads with a blank card at the end of all punch files regardless of their punch type.

PUW=

Indicates the maximum punch card record size for remote punch devices. For programmable terminals, the value specified for recsiz must not exceed the buffer size minus 16. The B parameter defines the buffer size. If recsiz is larger than bufsiz, JES3 assumes the default, 80.

For nonprogrammable terminals, the value specified for recsiz must not exceed the maximum punch card record size defined by the design of the specific device. The component document for the device defines the maximum record size.

RD=

Indicates the maximum number of readers at this work station. This parameter specifies a single digit with a maximum value of 7. Nonprogrammable terminals can have a maximum of one reader.

P= Specifies the 1- to 8-character password of the terminal. This password must be used by any work station trying to sign on. You can also use RACF to provide BSC RJP sign on protection. The P parameter is ignored when RACF sign on protection is enabled. See *z/OS JES3 Initialization and Tuning Guide* for additional information about using RACF to provide security for BSC RJP work stations.

CS=

Specifies the type of compression, if any, that is desired. This parameter is for programmable terminals only.

Y   Indicates that equal-character compression is requested for this terminal.

B   Indicates that blank compression only is requested for this terminal.

N   Indicates that no compression is requested.

SET=

Specifies the type of setup that is desired on remote printers.

Y   Indicates that setup is required on remote printers each time a work station signs on.

N   Indicates that setup is not required on remote printers when a work station signs on.

V   Specifies that the work station printer automatically will go through setup procedures when varied online.

B   Specifies that the work station printer automatically will go through setup procedures when varied online, or the first time accessed after a LOGON.

3741 Restrictions and Limitations

- The 3741 accepts record formats of fixed (F), fixed blocked (FB), variable (V), or variable blocked (VB). JES3, however, transmits only F or FB record formats to the 3741.
- Each logical record that JES3 transmits to a 3741 is 128 bytes long. If the 3741 has the expanded communication feature, each physical record that JES3 transmits to the 3741 contains four 128-byte logical records. Otherwise, each physical record contains one 128-byte logical record.
- Because JES3 always transmits a 128-byte logical record to the 3741, do not use data compression. If you use data compression and JES3 compresses a record to

fewer than 128 bytes, JES3 will then pad that same record to 128 bytes. Therefore, data compression serves no useful purpose on a 3741.

Examples

The following examples are provided as an aid in defining an RJP work station environment. Great care should be exercised in the definition of each work station, especially for console and device definitions.

Example 1: In the following example, the work station named T3780 is defined as a 3780 nonprogrammable terminal with a 144-character printer and a card reader. The buffer size is set to 516 bytes, and the space compress/expand feature is invoked. Although the console mode is specified (C=S), no console support is provided for this work station because no CONSOLE initialization statement was supplied. The group name defaults to the terminal name T3780.

```
RJPTERM,N=T3780,T=3780,F=PRES,F=NTRS,B=516,C=S,
PR=1,RD=1,PRW=144
```

Example 2: In the following example, the work station named T2780 is defined as a 2780 nonprogrammable terminal with the multirecord and horizontal tab features installed. This work station is nontransparent, and therefore cannot send or receive object decks.

Work station devices include one printer, one punch, and one card reader. The printer width is 144 characters. Because T2780 is a nonprogrammable device, the console support mode is assumed to be simulated even though real (C=R) was specified. This means that the card reader and printer will be treated as the console input and output devices, respectively. The console authority level is 10; the default console width (equals printer width) is taken. The console has the default routing code of NONE. The group name defaults to the terminal name.

```
RJPTERM,N=T2780,T=2780,F=NTRS,F=HTAB,F=XBUF,
C=R,PR=1,PRW=144,PU=1,RD=1
CONSOLE,JNAME=T2780,TYPE=RJP,LEVEL=10,DEPTH=50
```

Example 3: In the following example, the work station named TERM2 is defined as a SYSTEM/360 having two printers, one punch, one card reader, and a console device. This work station buffer size is 600 bytes. The group name defaults to the terminal name. The console authority level is 10 and the console line width is defaulted to 120.

All devices on the work station TERM2, except PR1, are assigned JES3 default characteristics. PR1 is defined as a 3211.

```
RJPTERM,N=TERM2,T=S360,B=600,C=R,PR=2,PU=1,RD=1
CONSOLE,JNAME=TERM2,TYPE=RJP,LEVEL=10,DEST=NONE
DEVICE,DTYPE=RMT3211,JNAME=TERM2PR1
```

Example 4: The work station named FUL50 is defined as a SYSTEM/360. The work station buffer size is 800 bytes. The groupname assigned to this work station is DESIGN. It has five printers, two punches, three card readers, and a real console device. The console line width is 124 characters. The console has no destination assignments, and is given an authority level of 15.

The first and second printers defined on FUL50 are 3211s. All devices attached to this work station, with the exception of PR2 and PU2, have default JES3 characteristics. PR2 may not have its forms, train, or FCB load changed. Its assumed setup is: forms (2PART7A), train (TN), and FCB load (SPDG8). JES3

header pages and burst pages will not be printed on PR2. PU2 on FUL50 may not have its forms changed, and is assumed to be setup with the forms called MICARD.

```
RJPTERM,N=FUL50,T=S360,B=800,G=DESIGN,C=R,PR=5,
PU=2,RD=3
CONSOLE,JNAME=FUL50,TYPE=RJP,DEST=NONE,LEVEL=15,
LL=124,
DEVICE,DTYPE=RMT3211,JNAME=FUL50PR1
DEVICE,DTYPE=RMT3211,JNAME=FUL50PR2,BURST=NO,
FORMS=(NO,2PART7A),TRAIN=(NO,TN11),HEADER=NO,
CARRIAGE=(NO,SPDG8)
DEVICE,DTYPE=RMT2540P,JNAME=FUL50PU2,
FORMS=(NO,MICARD)
```

RJPWS (SNA Work Station Characteristics)

Use the RJPWS initialization statement to describe each SNA work station's characteristics to the JES3 system. This statement causes a default description to be provided for each work station device (printer, punch, or card reader) indicated by the PR, PU, or RD parameter along with the operating characteristics of the work station.

Statement summary

Table 56. RJPWS Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. Use the CONSOLE statement to define console support at a remote work station. If you forget to define a console for the remote work station,you can use the *MODIFY,CONFIG command to add the console after JES3 initialization completes. 2. Use the DEVICE statement to define remote printers and punches. You can use the *MODIFY,CONFIG command to add additional devices to the remote work station after JES3 initialization completes. 3. If the JES3 default characteristics for a remote printer or punch device are not acceptable, you should code a DEVICE statement to indicate desired characteristics. "Parameters" on page 171 shows the DEVICE statement defaults and the RJP DEVICE parameters.
Security Usage	You can specify a LOGON password using the P parameter to be used by the work station operator. This password must be included in the user data specified on the LOGON command passed to the JES3 LOGON exit by VTAM, or JES3 will reject the LOGON. This parameter is ignored when the RACF is used to control RJP logon passwords.
Performance Considerations	None
Initialization Stream Overrides	None

Table 56. RJPWS Summary (continued)

Variable	Value
Restart or Command Modification	• Cold start, warm start, or hot start with refresh for all parameters. • Use the *MODIFY,CONFIG... command to dynamically add SNA RJP work stations. • Use the *MODIFY,T command to change the AUTO, G, P PL, and TRACE parameters.

Syntax

```
►►─RJPWS──,N=name─────────────────────────────────────────────────────────►
            └─,RD=─┬─1──┬─┘  └─,PR=─┬─1──┬─┘  └─,PU=─┬─0──┬─┘
                   └─nn─┘           └─nn─┘           └─nn─┘

►─────────────────────────────────────────────────────────────────────────►
    └─,C=─┬─R─┬─┘  └─,G=grpname─┘  └─,COMPACT=─┬─NO──────┬─┘  └─,P=password─┘
          └─S─┘                                └─comptbl─┘

►─────────────────────────────────────────────────────────────────────────►
    └─,PL=─┬─2─┬─┘  └─,AUTO=─┬─N──────────────────────────────┬─┘
           └─n─┘            └─(─Y,luname──────────────────)─┘
                                          └─,modetabentry─┘

►─────────────────────────────────────────────────────────────────────────►◄
    └─,LU=─┬─luname────────────┬─┘  └─,TRACE=ON─┘  └─,SETUP=─┬─NO───┬─┘
           │      ┌─,──────┐    │                           ├─YES──┤
           └─(────┴─luname─┴─)─┘                            ├─VARY─┤
                                                            └─BOTH─┘
```
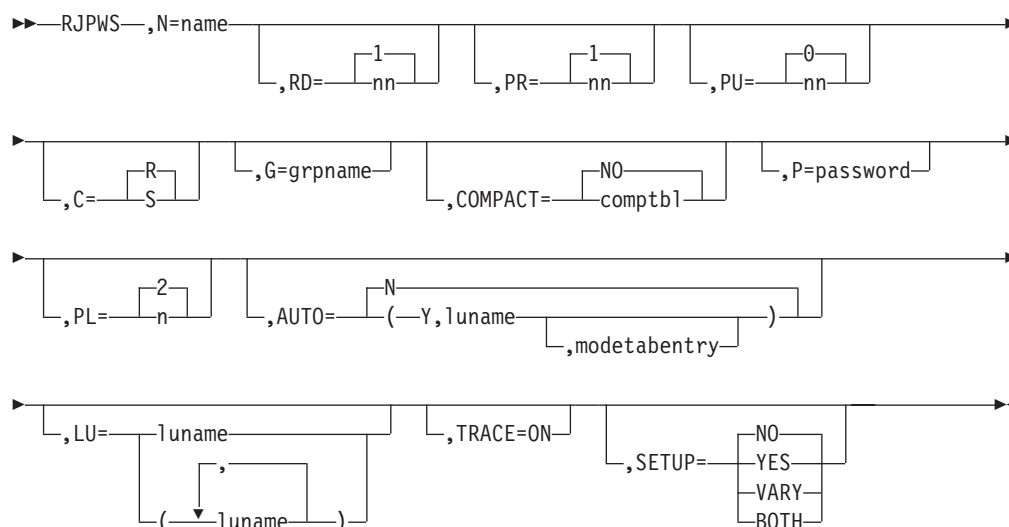
Parameters

Note: The CONSOLE statement is required when supplying an RJPWS statement.

N= Specifies the 5-character name of the work station. This parameter cannot specify the same name specified in the N parameter on an RJPLINE or RJPTERM statement.

Note: IBM recommends that a TSO userid should not have the same name as an RJP workstation, group name, or device. This avoids ambiguity when routing inbound SYSOUT data sets.

RD=

Specifies the maximum number of work station reader units. This number must be an integer between 0 and 15.

If you specify an invalid subparameter, JES3 uses the parameter default.

PR=

Specifies the maximum number of work station printer units. This number must be an integer between 0 and 15.

If you specify an invalid subparameter, JES3 uses the parameter default.

PU=

Specifies the maximum number of work station punch units. This number must be an integer between 0 and 15.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: JES3 pads with a blank card at the end of all punch files regardless of their punch type..

C= Specifies the type of console support for the work station.

S   indicates that console and print media share the same presentation surface. JES3 never interrupts data streams to send console messages.

R   indicates that the console and printer are separate real devices. JES3 interrupts data streams to send console messages.

If you specify an invalid subparameter, JES3 uses the parameter default.

G= Used for the group name facility. This parameter associates the work station with a group name. The grpname specified can be up to 8 characters long. This name is also the default destination for any output data set from a job submitted from a work station in the group. BSC RJP and SNA RJP work stations can belong to the same group.

JES3 uses the name specified in the N parameter on this statement as the default.

COMPACT=
Specifies the name of the default compaction table to be used for the work station if the name specified on the COMPACT initialization statement is not desired. If compaction is supported by the work station session and this parameter is specified, JES3 compacts all output data sets sent to the work station using this table unless another table is specified on the SYSOUT or //*FORMAT statement. COMPACT=NO indicates that there is no default compaction table.

P= Specifies the 1- to 8-character password to be used by the work station. This password must be included in the user data specified on the LOGON command passed to the JES3 LOGON exit by VTAM, or JES3 will not accept the LOGON. Note that the password must not contain blanks, tabs, commas, or parentheses.

You can also use RACF to provide SNA RJP LOGON protection. The P parameter is ignored when RACF sign on protection is enabled. See *z/OS JES3 Initialization and Tuning Guide* for additional information about using RACF to provide security for SNA RJP work stations.

PL=
Specifies the number of invalid LOGONs that can be attempted before the work station is rejected. Once the work station is rejected, the local operator must issue the *START or *RESTART commands to activate the work station. The number specified must be an integer from 0 to 9. If 0 is specified, there is no limit on invalid LOGONs.

If you specify an integer greater than the maximum allowable, JES3 uses the parameter default. If you specify a negative integer or a non-numeric character, JES3 issues message IAT3245 and initialization terminates.

If you specify an invalid subparameter, JES3 uses the parameter default.

AUTO=
Specifies whether automatic LOGON is supported for the work station.

(Y,luname [,modetabentry])
Indicates that automatic LOGON is supported for this work station. The

luname is the name of the logical unit (LU). JES3 issues the SIMLOGON for the LU specified in luname when the JES3-VTAM interface is activated or when the local operator issues an *START or *RESTART command and an active session does not exist between JES3 and the work station. The modetabentry is the name of the mode table entry to be used for this work station. The default mode table is the first entry in the LOGMODE table for that LU.

LU=

Specifies the LU names associated with this work station as defined to VTAM. The names specified are those LUs which are permitted to LOGON as this work station. Up to 64 names can be specified.

Parameter Default: LOGONs are accepted from any LU.

TRACE=

Indicates that the SNA RJP trace facility is to be initiated during the work station LOGON process.

SETUP=

Specifies whether the work station printer will automatically go through setup procedures the first time it is accessed after work station LOGON.

YES

Specifies that the work station printer automatically will go through setup procedures. Do not specify SETUP=YES for unattended work stations because the system will wait for an operator response to the setup message.

NO Specifies normal operation. The first time the printer is accessed after work station LOGON, JES3 assumes the printer is set up according to installation standards. The printer setup message will be sent to the work station operator only if a job requires special forms or features.

VARY

Specifies that the work station printer automatically will go through setup procedures when varied online.

BOTH

Specifies that the work station printer automatically will go through setup procedures when varied online, or the first time accessed after a LOGON.

Example

The following example describes a SNA work station named WS1A1. The console and printer are separate real devices, the maximum number of work station punch units is 1, the work station is associated with a group named GROUP4A, and the default compaction table for the work station is named TN.

```
RJPWS,N=WS1A1,C=R,PU=1,G=GROUP4A,COMPACT=TN
```

SELECT (Job Selection Mode)

Use the SELECT initialization statement to define scheduling controls you want associated with a particular job selection mode. The initial job selection mode is assigned to a JES3 main using the SELECT parameter on the JES3 MAINPROC initialization statement. If a MAINPROC statement does not indicate a selection mode, the SELECT statement default values are assigned to that main. Each select mode defined can be dynamically changed using the *MODIFY,G,main,S operator command. In addition, the commands *MODIFY,G,main,G or *MODIFY,G,main,C

can indirectly affect the select mode. A SELECT statement must be specified for each select mode indicated on a MAINPROC statement or in a *MODIFY,G,main,S command.

Statement Summary

Table 57. SELECT Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	JES3 assigns the following default select mode to any main whose associated MAINPROC statement does not specify the SELECT parameter: SELECT,NAME=JS3BATCH,CHOICE=FFIT,LSTOR=12000, SDEPTH=255,MAGEL=14,MAGER=0,SAGEL=14,SAGER=0, SBAR=16,INCL=14,INCR=1
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. The SELECT parameter specified on a MAINPROC statement as the initial select mode must match the NAME parameter on a SELECT statement. 2. The CLASS parameter on the SELECT statement must match the NAME parameter on one or more CLASS statements. 3. The GROUP parameter on the SELECT statement must match the NAME parameter on a GROUP statement. 4. The LSTOR parameter is ignored when scheduling jobs in WLM-managed groups.
Security Usage	None
Performance Considerations	None. See *z/OS JES3 Initialization and Tuning Guide* for additional information about how the SELECT, CLASS, and GROUP initialization statements affect the processing of WLM-managed jobs and JES3-managed jobs.
Initialization Stream Overrides	None.
Restart or Command Modification	• Hot start with refresh for all parameters. • You can use the *MODIFY,G,main,S command to override some SELECT statement parameters.

Syntax

```
►►──SELECT──,NAME=──modename──────────────────────────────────────────────►
                              ┌──────────(1)──┬─FFIT─┐
                              └─,CHOICE=───────┼─BMIX─┤
                                              ├─FJOB─┤
                                              └─FMIX─┘
```

```
┌──────────────────────────────────────────────────────────────┐
▶─┬────────────────────────────────────────────────────────────┬─▶
  │                              ┌──────────────────┐           │
  └─,CLASS=──(─┬──────┬──jobclass─┴─┬──────────┬──)─┘
              └──/───┘              └─,jobclass─┘
```

```
▶─┬──────────────────────────────────────────────────────────────────┬─▶
  │                              ┌─────────────────────┐              │
  └─,GROUP=──(─┬─groupnam,initnum─┴─┬───────────────────┬──)─┘
              │                    └─,groupnam,initnum─┘
              │        ┌──────────────────────┐
              └────────┴─/groupnam─┬───────────┬─┘
                                   └─,groupnam─┘
```

```
▶─┬──────────────────┬─┬───────────────┬─────────────────────────────────────▶
  │        ┌──14──┐   │ │      ┌──1──┐  │
  └─,INCL=─┴──nn──┘   └─,INCR=─┴──nn─┘
```

```
▶─┬──────────────────────────────┬─┬─────────────────────────────┬─▶
  │        (1)                    │ │          (1)  ┌──12000─┐    │
  └─,JOBMIX=───(─n1─┬─────────┬─)─┘ └─,LSTOR=───────┴──nnnnn─┘
  │                 │   (2)   │
  │                 └─,nn─────┘
```

```
▶─┬───────────────────────┬─┬───────────────────────┬─┬──────────────────┬─▶
  │        (1)  ┌──14──┐  │ │        (1)  ┌──0──┐   │ │        ┌──14──┐  │
  └─,MAGEL=─────┴──nn──┘  └─,MAGER=───────┴──nnn─┘  └─,SAGEL=─┴──nn──┘
```

```
▶─┬──────────────────┬─┬─────────────────┬─┬──────────────────┬─◀
  │        ┌──0──┐   │ │       ┌──16──┐  │ │        ┌──255─┐  │
  └─,SAGER=─┴──nnn─┘  └─,SBAR=─┼──PRTY─┤  └─,SDEPTH=─┴──nnn──┘
                              └──nn───┘
```
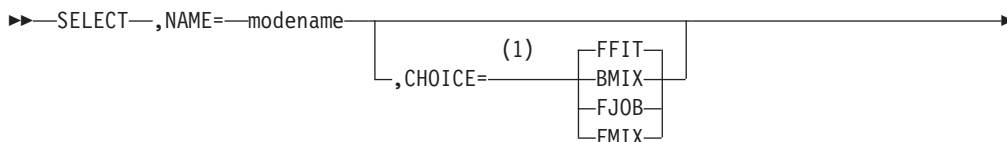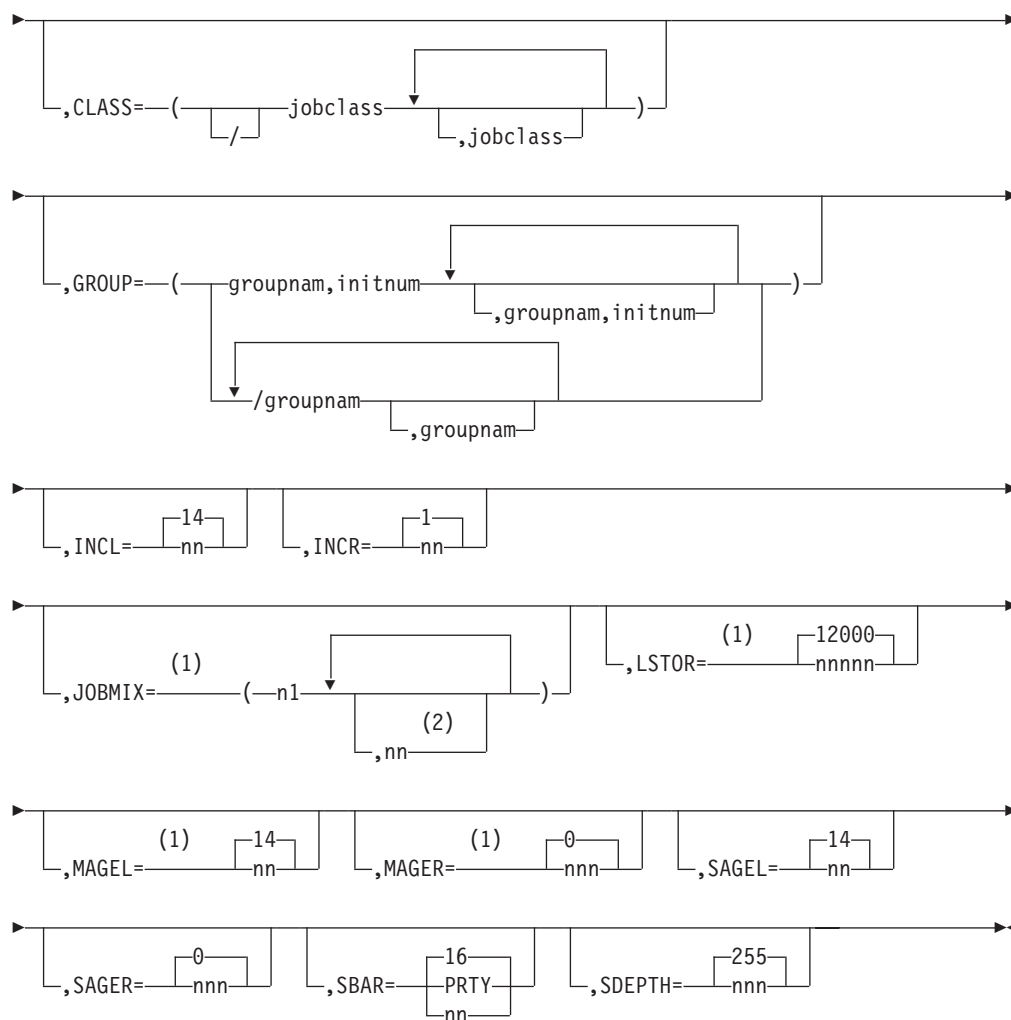
Notes:

1   The parameter is ignored for WLM-managed job class groups.

2   n_2, n_3,...up to a maximum value of n_{45}.

Parameters

NAME=

Indicates the alphameric name (1-to-8 characters) of the job selection mode. You must specify the NAME parameter as the first parameter on a SELECT statement. This modename can be referenced with the SELECT parameter of the MAINPROC statement or the MODE subparameter on the *F,G,main,S command.

If you do not specify a SELECT initialization statement in your initialization stream, a default of JS3BATCH is generated. If you specify a SELECT initialization statement, then the NAME= parameter must be specified.

CHOICE=

Specifies the job selection criteria to control the order of job selection on the main. The criteria are based on the size of the job and its I/O rate. JES3 uses the specified scheduling choice to select the most suitable jobs for execution.

SELECT

The choices available are BMIX, FFIT, FJOB, and FMIX. The following descriptions explain the job selection criteria associated with the different choices:

BMIX

Indicates that the first job in the queue that fits on the main and has a best mix IORATE is scheduled. JES3 determines IORATE from the job's //*MAIN statement or from the CLASS statement (IORATE parameter) that defines the class to which the job belongs. If none of the jobs meet these criteria, the first job that fits and has the alternate mix IORATE is scheduled. If none of the jobs in the queue have the alternate IORATE, the first job to fit will be scheduled.

FFIT

Specifies that the first job in the queue that fits on the main be scheduled. If none of the jobs fit, no job will be scheduled.

FJOB

Specifies that the first job in the queue be scheduled if it fits on the main. Otherwise, no job will be scheduled.

FMIX

Indicates that the first job in the queue that fits on the main and also meets the best or alternate IORATE requirement be scheduled. If none of the jobs in the queue meet these criteria, the first job that fits is scheduled.

If you specify an invalid subparameter, JES3 uses the parameter default.

CLASS=

Identifies either job classes that can be scheduled under this mode or, if a "/" precedes all class names, indicates those job classes that cannot be scheduled under this mode. Use the CLASS parameter to identify classes to be treated in a specific way or to include or exclude classes from a group for purposes of scheduling under this mode.

The CLASS parameter may be continued on another line if all class names cannot fit on one line. The continuation line must follow same format as the preceding line; that is, if the preceding line specified classes to be excluded (by a "/"), then the continuation line also must indicate exclusions. You cannot exclude certain classes in one specification of CLASS and include other classes in another specification. The maximum number of job classes that can be specified is 255. If you omit this parameter, all classes are eligible for scheduling.

GROUP=

Indicates either the names of job class groups (groupnam) that can be scheduled under this SELECT mode and the number of initiators (initnum) to be assigned to each of these groups; or, if a "/" precedes all the group names, this parameter identifies those job class groups that cannot be scheduled under this mode. The subparameter groupnam must match the NAME parameter on a GROUP statement. Jobs in the groups defined here as eligible for scheduling will not be scheduled until the execution resources are allocated. (Allocation is controlled by the allocation option with the EXRESC parameter on a GROUP statement.)

The GROUP parameter may be continued on another line if all class group names cannot fit on one line. A maximum of 255 groups for a single SELECT statement including continuation lines is allowed. The continuation must follow the same format as the preceding line; that is, if the preceding line specified groups to be excluded (by a "/"), then the continuation line must

also indicate exclusions. You cannot exclude certain groups in one specification of GROUP and include other groups in another specification.

Note:

1. The initnum value on the GROUP parameter of the SELECT initialization statement overrides the value of the initcnt parameter on the EXRESC parameter of the GROUP initialization statement.

2. If the GROUP parameter specifies job class group that is WLM managed, the initiator count is ignored. If this job class group is switched to JES3 management using the *MODIFY,G command, the initiator count that was specified will be in effect.

3. If the initiator count is omitted and the job class group is JES3 managed, a value of zero is assumed.

If you omit this parameter, all groups are eligible for scheduling.

INCL=

Specifies a limit within the range of 0 to 15 past which a job's priority cannot be incremented by JES3 main device scheduling (MDS). Note that only jobs requiring volume mounting or referencing a volume that was mounted for another job are incremented by setup.

INCR=

Specifies a decimal number from 0 to 15 that is automatically added to the priority of the job which is set up. If a job has a priority of 5 when it is set up, and INCR=4 is specified, the job's priority is elevated to 9 (or to the value specified in the INCL parameter, whichever is less) after the devices have been allocated and set up. This parameter expedites the processing of jobs once devices have been assigned to them.

JOBMIX=

Specifies 1 to 45 values (ranging from 1 to 15) which indicate the optimal I/O rate job mix for 1 to 15 active initiators. These parameters update the 3 by 15 table (see Table 58 on page 186) of job mix values. Each row represents the job mix for a particular number of active initiators. The columns express the three job counts for low, high, and medium I/O rate. The JOBMIX parameters change the table as follows: the first three numbers n1, n2, and n3 are the optimal low, high, and medium I/O rate job counts when one initiator is active. The next three numbers n4, n5, and n6 are the job mixes when two initiators are active. The JOBMIX values for n7 through n45 continue across in rows and down a row at a time. If more than 15 initiators are active (as might be the case for a local main), the JOBMIX parameter is calculated to determine the number of active initiators. The scheduling of the next job is then performed based on the defined I/O rates in proportion to the number of active jobs for each I/O rate. If the number of JOBMIX operands exceeds one statement, the n-values can be continued in a JOBMIX parameter on a following statement. See the example of the SELECT statement. Table 58 on page 186 indicates default JOBMIX values.

Table 58. JOBMIX Default Values

Active Initiators	Low	High	Medium
1	1	1	1
2	1	1	1
3	1	1	1
4	1	2	1
5	1	3	1
6	1	3	2
7	1	4	2
8	2	4	2
9	2	5	2
10	2	5	3
11	2	6	3
12	2	7	3
13	2	7	4
14	3	7	4
15	3	8	4

LSTOR=
Defines the logical storage resource, in 1024-byte blocks, for a main. The purpose of this parameter is to allow the system programmer to control the number of jobs to be scheduled on a main in such a way as to fully use central dynamic storage and at the same time minimize the probability of excessive paging or thrashing. The maximum value for the LSTOR parameter is 32767. Specifying 0 disables logical storage scheduling. Also, when insufficient logical storage is available, no further scheduling occurs. Jobs are scheduled on mains based on logical storage available.

Initially it is recommended that LSTOR be defined to obtain maximum throughput with jobs using their normal region requests. Over-commitment of the MVS storage can then be planned by the system programmer without the need for application programmer action. These recommendations should result in reasonable utilization of storage during the period when each job's actual central storage utilization (working set) is being determined.

For additional information about logical storage, see *z/OS JES3 Initialization and Tuning Guide*.

See the LSTRR parameter on the CLASS initialization statement. If LSTRR=0 is specified on the CLASS statement, logical storage *processing* is disabled for jobs of that class.

Logical storage is ignored for the scheduling of jobs in WLM managed groups.

MAGEL=
Specifies an aging priority limit (0-15) beyond which a job cannot be aged during GMS.

If you specify an invalid subparameter, JES3 uses the parameter default.

MAGER=
Specifies the number (0-255) of times a job must be eligible for aging before its job priority is actually incremented. If 0 is specified, no aging is done.

If you specify an invalid subparameter, JES3 uses the parameter default.

SAGEL=
Specifies an aging priority limit (0-15) beyond which a job cannot be aged during MDS setup for the job.

If you specify an invalid subparameter, JES3 uses the parameter default.

SAGER=
Specifies the number of times (0-255) a job must be eligible for aging during JES3 MDS processing before its job priority is actually incremented. If 0 is specified, no aging is done.

If you specify an invalid subparameter, JES3 uses the parameter default.

SBAR=
Specifies a job priority barrier. Jobs equal to or above this barrier which cannot obtain all their required resources (volumes, data sets, and available devices) will reserve resources as they become available to prevent lower priority jobs from obtaining them.

PRTY
Indicates that the priority of the first job that cannot be setup is the priority barrier.

nn Specifies a job priority level from 0 to 15.

16 Indicates there is no job priority barrier.

If you specify an invalid subparameter, JES3 uses the parameter default.

SDEPTH=
Specifies the maximum number (0-255) of jobs requiring operator mounts that may be set up at one time on any main for which this select mode is active. SDEPTH allows mains with different nonshared device configurations to be given a variable number of setup jobs, depending on the number of devices associated with the main.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: When deferred mounting is either specified in the JCL for any device (for example, UNIT=(TAPE,,DEFER)) or implicitly requested, by using tape library dataserver devices, JES3 bypasses pre-execution mount processing and does not include the job in its CLASS setup depth (SDEPTH) count unless DEFERCT=YES has been specified on the SETPARAM initialization statement, or the *F S operator command.

Example

1. In the following example, the SELECT statement is specified for best performance in this environment:

Group	Job Class	I/O Rate	Jobs Per Day
AB	A	Low	100
	B	Low	
CD	C	Medium	200
	D	Medium	
EF	E	High	300
	F	High	
			600 Total

```
           SELECT,NAME=SHIFT1,CHOICE=BMIX,CLASS=(A,B,C,D,E,F),
           GROUP=(AB,2,CD,2,EF,2)
           GROUP,NAME=AB,EXRESC=(SYS1,2)
           GROUP,NAME=CD,EXRESC=(SYS1,4)
           GROUP,NAME=EF,EXRESC=(SYS1,6)
```

2. The following example shows a multiline SELECT statement:

```
           SELECT,CLASS=(A,B,C,D),
           CLASS=(E,F,G,H,I,J,K),GROUP=(/L,M),
           GROUP=(/N,O,P,Q),
           GROUP=(/R,S,T,U,V,W,X,Y,Z)
```

SETACC (Accessibility to Direct-Access Volumes)

Use the SETACC initialization statement to identify those mains that normally have access to a permanently resident direct-access volume. The SETACC statement identifies the location of a volume on the uninitialized mains in a JES3 complex. SETACC prevents JES3 from setting up a job that needs the mounted volume until the main is initialized. When all mains are initialized or the volume is found, the SETACC definition is no longer used and normal JES3 management of the volume and device occurs. The devices on which the volumes reside are defined on a DEVICE statement with an XTYPE parameter and PR subparameter.

Statement Summary

Table 59. SETACC Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	1. The NAME parameter in the MAINPROC statement defines the main name parameter specified in the SETACC statement. 2. A DEVICE statement indicating the PR subparameter with the XTYPE parameter indicates a device where a permanently resident volume may reside.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	The SETACC function is nullified when the specified volume is located on a device or when all of the specified mains become initialized.
Restart or Command Modification	• Warm start or cold start for all parameters. • Hot start with refresh for all parameters. The VOL parameter has a dependency on the NAME parameter of the MAINPROC statement. During a hot start with refresh, JES3 does not process MAINPROC statements but uses the MAINPROC statement from the last warm or cold start. If you add a MAINPROC statement during a hot start with refresh, JES3 ignores it and issues error messages if the VOL parameter of the SETACC statement references the MAINPROC statement that you attempted to add during the hot start with refresh.

Syntax

```
►►──SETACC──,──VOL=──(──volser──,procname──┬──────────┬──)──┤ VOL= ├──────►◄
                                            └─,procname┘
```

VOL=:

```
├──────────────────────────────────────────────────────────────┤
  └─VOL=──(──volser──,procname──┬──────────┬──)─┘
                                └─,procname─┘
```
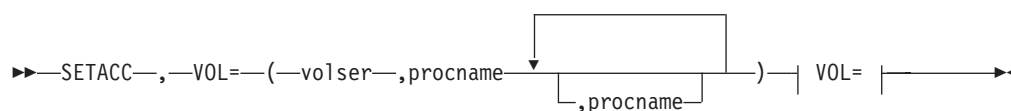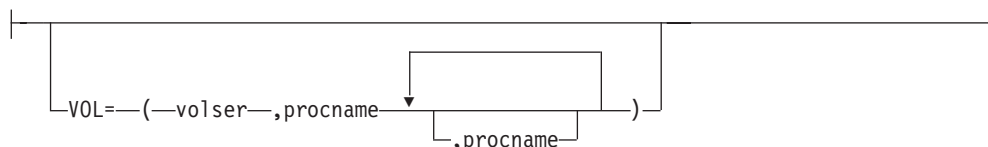
Parameters

VOL=

Associates one permanently resident direct-access volume with the specified
mains. One VOL parameter is specified for each volume defined on the
SETACC statement.

volser

Specifies the volume serial number of a direct access volume. JES3 is to
make the volume "unavailable" until the named mains(s) complete
initialization.

procname[,procname]

Specifies the name of the mains that must be initialized before JES3 will
make the associated volume "available". Each main name (procname) must
match the name parameter on a MAINPROC statement.

Example

In the following example, two volumes are defined to be accessible only by the
specified main.

```
SETACC,VOL=(WORKDS,SYS1,SYS2),VOL=(SECURT,SYS1,SYS3)
```

SETNAME (Set JES3 Device Names)

Use the SETNAME initialization statement to specify all user-assigned names and
device type names associated with MDS-managed devices.

Statement Summary

Table 60. SETNAME Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None

Table 60. SETNAME Summary (continued)

Variable	Value

Placement in Initialization Stream	This statement must follow the ENDJSAM statement. However, the order of SETNAME statements in your initialization stream affects the order that JES3 uses to select devices. For example, if you want to reserve a group of devices for selection only after all devices from another group are allocated, order your SETNAME statements as follows:
	
	`SETNAME,XTYPE=LARGE,NAMES=(3380,DISK)`
	`SETNAME,XTYPE=SMALL,NAMES=(3380,DISK,XYZ)`
	
	In the preceding example, JES3 will make an initial attempt to allocate devices from the large group when users specify UNIT=3380 or UNIT=DISK in their JCL. If no devices are available in the large group, JES3 will attempt to allocate a device from the small group. Defining SETNAME statements in this order improves the chances that devices in the small group will be available when a user specifies UNIT=XYZ.

Coding Considerations	1. The XTYPE parameter on this statement must match the first operand of the XTYPE parameter on one or more DEVICE statements. 2. The DEVPOOL parameter on the GROUP statement may match the POOLNAMS parameter on the SETNAME statement. 3. All names specified on the TYPE parameter of the HWSNAME statements must be specified on the NAMES parameter of the SETNAME statements. 4. You can define a maximum of 255 unique XTYPE parameters on a SETNAME initialization statement.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold, warm, or hot start with refresh for all parameters. The loss of an esoteric or generic name caused by omitting this statement will cause jobs that use the named device to terminate abnormally.

Syntax
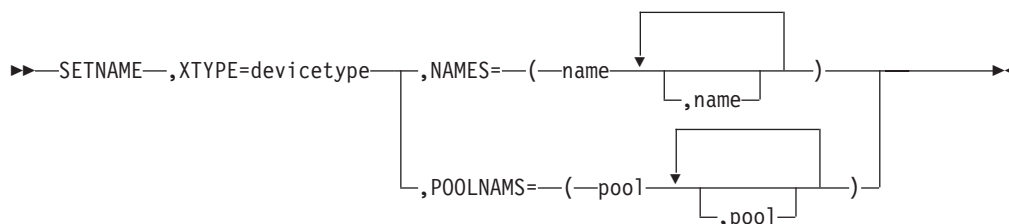
Parameters

XTYPE=

Indicates a 1- to 8-character name which matches the first operand in the XTYPE parameter on a DEVICE statement. The XTYPE parameter associates this statement with a specific device definition indicated on a DEVICE statement. The XTYPE parameter must always precede the NAMES or POOLNAMS parameters.

Devices within a specific XTYPE should have compatible characteristics. If the XTYPE parameter is the same on two different SETNAME statements, the NAMES parameter on the two statements must be different.

NAMES=

Identifies all names (user-assigned and device type) used to refer to the device defined in the associated DEVICE statement. The NAMES parameter indicates what names are used to specify devices in the UNIT parameter of any DD statements. Each name must also have been indicated during system installation. Note that device type names must be included if allocation of cataloged data sets that are on these device types is done by JES3 even though the devices are not directly referred to in the UNIT parameter of a DD statement. For example, if UNIT=2314 is specified, 2314 must be defined as a name.

By organizing names, the system programmer can identify unit allocation requirements (including specific device attributes, such as tapes with a special density) and can balance the load across available channel paths.

If the same names are specified in the NAMES parameter, but in a different order for the same XTYPE, an order of preference for device selection is created for requests that require volume mounting. (See the first example.) If an order of preference is created, it must be the same for both JES3 and MVS.

Note: If you have replaced one device type on your system with a different device type and the resource is still referred to using the old device name (for example, in catalog entries), do not remove the name of the old device type from the NAMES parameter. Leave it in and add the name of the new device type.

POOLNAMS=

Specifies the 1- to 8-character name(s) that may be used only for dedicating devices to job class groups or dependent job control jobs. The pool names specified may be used in the DEVPOOL parameter of the GROUP statement , the //*NET statement, or both. These names may not be used in the UNIT parameter of the DD statement.

Note:

1. The MVS generic names must be included if cataloged data sets residing on these types are to be allocated by JES3, even though direct reference to them is not made in the UNIT parameter of their DD statements.

2. There must be a SETNAME statement for the IBM generated esoteric names SYSALLDA, SYS3480R, and SYS348XR in the initialization deck if these values are to be coded or defaulted for allocations which are to be JES3 manages.

   For more information about IBM generated esoteric names, see *z/OS HCD User's Guide*.

3. If a dynamic allocation is made for a time-sharing user and a UNIT parameter is not included in the DD statement, the UNIT parameter is obtained from the time-sharing user attribute data set (UADS). If the UADS does not contain a

UNIT parameter, or if the user is not a time-sharing user, an MVS default of SYSALLDA (that is, all direct access devices) is assumed.

It is recommended that a default UNIT parameter value be defined in the UADS and that all dynamic allocations specify a UNIT parameter. Otherwise, if JES3 is to manage the dynamic allocations that do not have a UNIT parameter, the MVS default UNIT value (SYSALLDA) must be included in SETNAMES for all DA device types.

Examples

Example 1: The following example shows how to achieve a preference order of device selection when devices are on three channel paths and volume mounting is required. As a result of these control cards, requests for DACH1 would attempt allocation on channel path 1, then on channel path 2, and finally on channel path 3. Similarly, requests for DACH2 would attempt allocation first on channel path 2, then on channel path 3, and then on channel path 1. By using DISK1, DISK2, or DISK3, strict channel path separation could be achieved.

```
DEVICE,XTYPE=(3330CH1,DA),XUNIT=(130,SY2,S1,ON)
DEVICE,XTYPE=(3330CH2,DA),XUNIT=(230,SY2,S1,ON)
DEVICE,XTYPE=(3330CH3,DA),XUNIT=(330,SY2,S1,ON)

SETNAME,XTYPE=3330CH1,NAMES=(DACH1,DISK1,3330)
SETNAME,XTYPE=3330CH2,NAMES=(DACH1,DACH2,DISK2,3330)
SETNAME,XTYPE=3330CH3,NAMES=(DACH1,DACH2,DACH3,DISK3,3330)
SETNAME,XTYPE=3330CH1,NAMES=(DACH2,DACH3)
SETNAME,XTYPE=3330CH2,NAMES=(DACH3)
```

Example 2: The following example illustrates how to dedicate two 3330 disks and three tapes on channel path 1. There is a two-channel main processor with four tape devices and four disk devices on each channel path. The accessibility desired by name is:

TAPE   Any tape

TAPEC1
          Any tape on channel path 1

TAPEC2
          Any tape on channel path 2

DISK   Any disk

DISKC1
          Any disk on channel path 1

DISKC2
          Any disk on channel path 2

3330   Any 3330 disk

3340   Any 3340 disk

The XTYPE names are chosen to indicate the model of a device and its channel path location. These must be specific enough to allow the separation of devices to satisfy the access level desired.

```
SETNAME,XTYPE=3340C1,NAMES=(DISK,DISKC1,3340)
SETNAME,XTYPE=3340C2,NAMES=(DISK,DISKC2,3340)
SETNAME,XTYPE=3330C1,NAMES=(DISK,DISKC1,3330),
POOLNAMS=NETDISK
SETNAME,XTYPE=3330C2,NAMES=(DISK,DISKC2,3330),
POOLNAMS=NETDISK
```

```
SETNAME,XTYPE=3400C1,NAMES=(TAPE,TAPEC1,3400-4),
POOLNAMS=NETTAPE
SETNAME,XTYPE=3400C2,NAMES=(TAPE,TAPEC2,3400-4)
```

SETPARAM (Set MDS Parameters)

Use the SETPARAM initialization statement to specify parameters that the JES3 main device scheduler (MDS) and the DYNAL DSP uses in allocation, mounting, and deallocation of devices for jobs run on all mains. The SETNAME and DEVICE statements are used with the SETPARAM statements. SETNAME and DEVICE identify the devices to be managed by MDS. SETPARAM also indicates how MDS is to manage devices.

Statement Summary

Table 61. SETPARAM Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	SETPARAM,ADDRSORT=YES,ALLOCATE=AUTO, DAFETCH=97, DEFERCT=NO, DSN=0,FETCH=YES,MDSLOG=97, REMOUNT=1,TAFETCH=(97,97),ALWIO=10, MAXIO=25,PRJESMSG=NONE,SMSSETUP=YES MTJESMSG=(ALLOC,BREAKDWN) **Note:** For the DAFETCH, MDSLOG and TAFETCH parameters, the default of 97 is the routing code equivalent of JES3 Dest Class S1.
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	If SETUP=NONE is specified on the STANDARDS statement to indicate no MDS, then SETPARAM is ignored and all devices are allocated, mounted, and deallocated by MVS.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	The SETPARAM statement is overridden if SETUP=NONE is specified on the STANDARDS statement; all devices are allocated, mounted, and deallocated by MVS instead of MDS.
Restart or Command Modification	Warm start or cold start for the SMSSETUP parameter. Cold start, warm start, or hot start with refresh for all other parameters. Use the *MODIFY,S command to change the ALLOCATE, ALWIO, and DEFERCT parameters.

Syntax

```
       ┌─────────────────┐ ┌──────────────┐ ┌────────┐
►──┬──────────────────────┬─┬─────────────────┬─┬───────────────┬──────►
   │              ┌─97────┐ │ │         ┌─NO──┐ │ │      ┌─0───┐ │
   └─,DAFETCH=─┬─msgdest─┬─┘ └─,DEFERCT=─┴─YES─┘ └─,DSN=─┴─nn──┘ │
              ├─S1──────┤
              └─nnn─────┘
```

```
       ┌───────────┐ ┌──────────────────┐
►──┬──────────────┬─┬─────────────────────┬──────────────────────────►
   │       ┌─YES─┐ │ │          ┌─97──────┐ │
   └─,FETCH=┴─NO──┘ └─,MDSLOG=─┬─nnn─────┬─┘
                              ├─msgdest─┤
                              └─S1──────┘
```

```
►──┬───────────────────────────────────┬─┬───────────────────────┬──►
   │              ┌─(ALLOC,BREAKDWN)──┐ │ │          ┌─NONE──┐ │
   └─,MTJESMSG=─┬──────────────────────┬─┘ └─,PRJESMSG=┬─FETCH─┤
              ├─ALL───────────────┤              ├─ALLOC─┤
              ├─NONE──────────────┤              └─ALL───┘
              └─FETCH─────────────┘
```

```
►──┬──────────────────────┬─┬────────────────────┬──────────────────►
   │          ┌─1───┐ │ │             ┌─YES─┐ │
   └─,REMOUNT=─┴─nnn─┘ └─,SMSSETUP=─┴─NO──┘
```

```
►──┬─────────────────────────────────────────────┬─┬────────────────┬──►
   │            ┌─97──────┐  ┌─97──────┐ │ │        ┌─10──┐ │
   └─,TAFETCH=─(─┬─msgdest─┬──┬─msgdest─┬─)─┘ └─,ALWIO=─┴─nn──┘
              ├─S1──────┤  ├─S1──────┤
              └─nnn─────┘  └─nnn─────┘
```

```
►──┬───────────────────┬─┬─────────────────────┬──────────────────►◄
   │        ┌─25──┐ │ │           ┌─WAIT──┐ │
   └─,MAXIO=─┴─nn──┘ └─,SDEPZERO=─┴─ERROR─┘
```
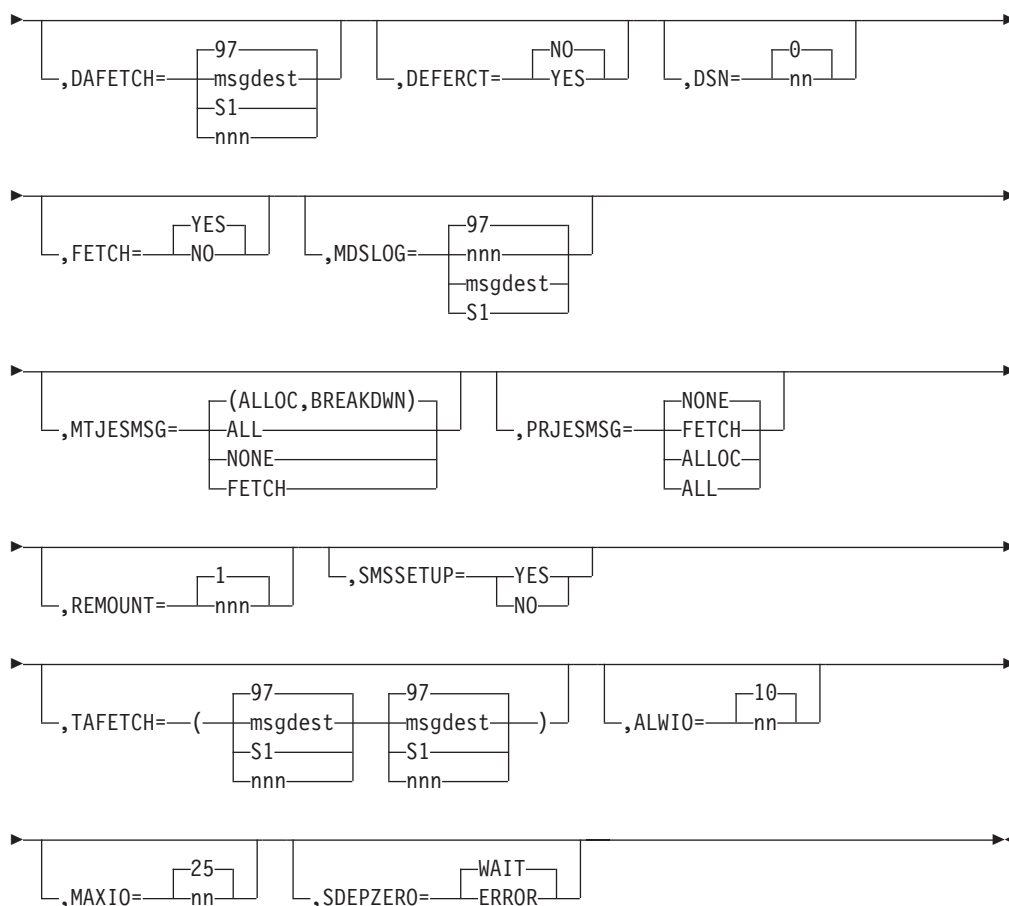
Parameters

ADDRSORT=
Specifies the order in which JES3 MDS allocates devices.

NO Indicates that devices within a device type are to be allocated in the same order as the DEVICE statements are placed in the initialization stream.

YES
Indicates that devices within a device type are to be allocated by the order of their device numbers, that is, 188, 189, 18A.

If you specify an invalid subparameter, JES3 uses the parameter default.

ALLOCATE=
Specifies whether automatic allocation of a job is to immediately follow MDS volume fetch. This parameter is ignored for jobs that reference only premounted volumes. The FETCH parameter specified may override the ALLOCATE parameter.

MANUAL
Indicates that all jobs are to be suspended following volume fetch until the operator causes them to continue. Note that ALLOCATE=MANUAL is ignored if FETCH=NO is indicated; ALLOCATE=AUTO is assumed instead.

AUTO
Specifies that MDS will automatically attempt allocation of resources for all

eligible jobs. If a job requires SMS-managed resources and you specify ALLOCATE=AUTO, MDS sends the job through the system select phase before allocation to determine which mains have access to the required SMS-managed resources. Note that ALLOCATE=AUTO is assumed (ALLOCATE=MANUAL is ignored) if FETCH=NO is specified.

If you specify an invalid subparameter, JES3 uses the parameter default.

DAFETCH=

Specifies the routing information for direct-access volume fetch messages.

msgdest

Specifies a SETUP-related console destination class. Direct-access volume fetch messages are issued with the routing code equivalent of this destination class.

NONE

indicates that volume fetch messages are not to be issued.

97 Indicates that volume fetch messages are to be issued with routing code 97; messages also are recorded on the hard-copy log. Note that this parameter is ignored if FETCH=NO is also specified.

97 is the routing code equivalent of JES3 Dest Class S1.

nnn

Specifies an MVS routing code from 1 to 28, or 41 to 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

DEFERCT=

Specifies whether jobs requiring deferred mounts (whether explicitly requested through JCL, or implicitly requested because of using tape library devices) should be included in the CLASS/SELECT SDEPTH counts. The default is DEFERCT=NO.

DSN=

Specifies the number of characters (0 to 44) of the data set name that is to be included in MDS volume fetch, mount, and breakdown messages. This parameter is used for message formatting. If DSN=0 is specified, or assumed by default, then the data set name is omitted from these MDS messages.

If you specify an invalid subparameter, JES3 uses the parameter default.

FETCH=

Indicates whether MDS is to issue volume fetch messages. Note that the FETCH parameter can override the ALLOCATE parameter.

NO Specifies that MDS is not to issue volume fetch messages. If FETCH=NO is specified, ALLOCATE=MANUAL will be overridden (and ALLOCATE=AUTO assumed); MDS will automatically attempt to set up jobs.

YES

Indicates that MDS is to issue volume fetch messages

If you specify an invalid subparameter, JES3 uses the parameter default.

MDSLOG=

Specifies the routing information for all non-action messages (that is, job LOGON and error messages).

msgdest
Specifies a SETUP-related console destination class. Non-action messages are issued with the routing code equivalent of this destination class.

97 Indicates that non-action messages are to be issued with routing code 97.

97 is the routing code equivalent of JES3 Dest Class S1.

nnn
Specifies an MVS routing code from 1 to 28, or 41 to 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

MTJESMSG=
Specifies whether you want FETCH, ALLOCATION, and BREAKDOWN messages for mountable devices to appear in the JESMSGLG data set.

FETCH
Specifies that you want fetch messages for mountable devices written into the JESMSGLG data set.

ALLOC
Specifies that you want allocation messages for mountable devices written into the JESMSGLG data set.

BREAKDWN
Specifies that you want breakdown messages for mountable devices written into the JESMSGLG data set.

ALL
Specifies that you want fetch, allocation, and breakdown messages for mountable devices written into the JESMSGLG data set.

NONE
Specifies that you do not want fetch, allocation, or breakdown messages for mountable devices written into the JESMSGLG data set.

When you use the default (ALLOC and BREAKDWN), allocation and breakdown messages for mountable devices are written into the JESMSGLG data set.

PRJESMSG=
Specifies whether you want FETCH and ALLOCATION messages for permanently resident or reserved DASD to appear in the JESMSGLG data set.

FETCH
Specifies that you want fetch messages for permanently resident or reserved DASD written into the JESMSGLG data set.

ALLOC
Specifies that you want allocation messages for permanently resident or reserved DASD written into the JESMSGLG data set.

If this value is specified, an allocation message will be written for all non-mountable requests in addition to permanently resident DASD.

ALL
Specifies that you want both fetch and allocation messages for permanently resident or reserved DASD and allocation messages for all other devices written into the JESMSGLG data set .

NONE

Specifies that you do not want fetch or allocation messages for permanently resident or reserved DASD written into the JESMSGLG data set.

If this value is specified, an allocation message will not be written for all non-mountable requests in addition to permanently resident DASD.

REMOUNT=

Specifies the number of times that an operator can retry to correct volume mount errors for a job before the devices for the job are released and allocation is restarted. The value of nnn specifies the number of retries allowed, from 0 to 255. For example, if REMOUNT=1 is specified, the operator can make two attempts to mount the volume—the original mount request and one retry request.

If you specify an invalid subparameter, JES3 uses the parameter default.

SDEPZERO=

Indicates whether jobs that require a tape mount, but are in a CLASS, are defined as SDEPTH=0, should wait on the MDS allocate queue, the default, or be sent to the MDS error queue.

SMSSETUP=

Specifies whether JES3 manages system managed storage (SMS) data sets.

NO Indicates that SMS data sets are not to be managed by JES3.

YES

Indicates that SMS data sets are to be managed by JES3.

If you specify an incorrect subparameter or do not specify the SMSSETUP= parameter, MVS determines whether JES3 manages SMS data sets or not.

TAFETCH=

Specifies the routing information for tape volume fetch messages. The first operand specifies the routing information for specific (nonscratch) volume requests. The second operand specifies the routing information for scratch volume requests.

msgdest

Specifies a SETUP-related console destination class. Tape volume (scratch or nonscratch) fetch messages are issued with the routing code equivalent of this destination class.

NONE

indicates that volume fetch messages are not to be issued.

97 Indicates that volume fetch messages are to be issued with routing code 97; messages also are recorded on the hard-copy log. Note that this parameter is ignored if FETCH=NO is also specified.

97 is the routing code equivalent of JES3 Dest Class S1.

nnn

Specifies an MVS routing code from 1 to 28, or 41 to 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

ALWIO=

The ALWIO parameter specifies the current number of asynchronous I/O requests which can be processed concurrently. This value must be a number

from 1 to the value specified in the MAXIO parameter. The value specified in the ALWIO parameter must be less than or equal to the value specified in the MAXIO parameter.

This parameter can be displayed through the *INQUIRY,S,ALWIO=nn command, and modified through the *MODIFY,S,ALWIO=nn operator command.

MAXIO=

The MAXIO parameter specifies the maximum number of asynchronous I/O requests that can be processed concurrently. Storage is obtained for the number of requests specified here. Note that an increase of one in this parameter results in a 76-byte increase in storage used. This parameter can only be changed when performing a warm start or cold start. The value specified in the MAXIO parameter may be a number from 1 to 99. The default value is 25.

The value specified in the MAXIO parameter must be greater than or equal to the value specified in the ALWIO parameter.

Example

In the following example, volume fetch messages are issued with the routing code equivalent of the destination classes specified:

S7   Nonscratch tape volume fetch messages.

S10   Scratch tape fetch messages.

S9   Direct-access volume fetch messages.

Also, MDS messages would identify the first 15 characters of the data set names. All nonaction messages would go to console destination S1. If necessary, one retry to mount any volume would be allowed. Allocation would occur automatically following volume fetch. Allocation order for devices would be by the order of their device numbers.

```
SETPARAM,FETCH=YES,TAFETCH=(S7,S10),DAFETCH=S9,DSN=15
```

SETRES (Mount Direct-Access Volumes)

The SETRES statement identifies frequently used direct-access volumes which are not permanently resident. The SETRES statement specifies volumes which may be on devices at main initialization time. When a specified volume is found to be present on an MDS-managed, removable, direct-access device during main initialization, the volume is considered mounted by MDS, without a MOUNT command being necessary.

Statement Summary

Table 62. SETRES Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	A real direct-access device that is listed on a SETRES statement may also be assigned the reserved mount-attribute through a VATLST entry. (*z/OS MVS Using the Subsystem Interface* describes VATLST entries.)

Table 62. SETRES Summary (continued)

Variable	Value
Security Usage	None
Performance Considerations	Using SETRES, the time required to perform volume setup following a JES3 restart is reduced and management of highly used direct-access setup volumes is simplified. (No action is taken if a specified volume is not found during initialization.) JES3 treats the specified volumes as mounted until an MDS unload is issued.
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►─SETRES─,─VOL=─(─volser─┬──────────┬─)──────────────────►◄
                         └─,volser─┘
```

Parameters

VOL=
　　Indicates the volume serial numbers of volumes mounted on devices that can have these volumes removed (unmounted) by JES3 MDS. (Note that the XTYPE parameter on the DEVICE statement for the associated devices must include the RM subparameter.)

Example

In the following example, four volumes with these serial numbers are marked as mounted if found on devices at the time a main is initialized.

```
SETRES,VOL=(111111,222222,2314AA,3330BB)
```

SOCKET

Use the SOCKET initialization statement to describe a TCP/IP socket connection that is used to communicate with an NJE node using the TCP/IP protocol.

Statement Summary

Table 63. SOCKET Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.

Table 63. SOCKET Summary (continued)

Variable	Value
Coding Considerations	NAME is the only required parameter. However, the HOSTNAME, NETSERV, and NODE parameters must be specified at initialization time or modified later in order to start the socket.
Security Usage	See the TLS keyword on the "NJERMT (JES3 Network Node Definition)" on page 140 statement.
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. • Use the *MODIFY,SOCKET=name command to modify an existing socket. • Use the *MODIFY,SOCKET,ADD=name command to add a new socket. • Use the *MODIFY,SOCKET,DELETE=name command to delete a socket. An active socket cannot be deleted or modified except to change the JTRACE, VTRACE, or ITRACE parameter.

Syntax
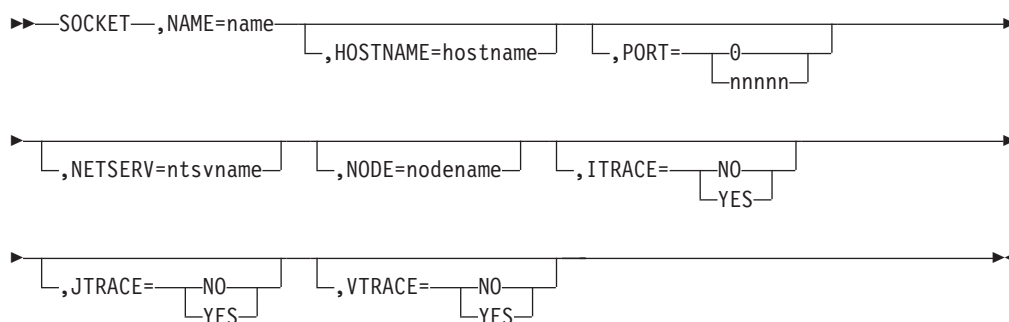
Parameters

NAME=name
> A 1-8 character name that uniquely identifies this socket. The name must contain only A-Z, @, $, #, or 0-9 and cannot start with a digit.

HOSTNAME=hostname
> Specifies the IP host name or IP address that this socket will use to communicate with TCP/IP.
>
> The host name can consist of up to 60 characters and must be a legal TCP/IP address or host name defined to the TCP/IP resolver. The host name can be in IPV4 or IPV6 format.

PORT=
> Specifies a port number that the socket will use, in combination with the host name, to communicate with TCP/IP. The port must be a number from 0 to 65,535. A port of 0 indicates that when the socket starts a standard service

name of VMNET, VMNET will be used instead of a numeric port. The service of VMNET corresponds to port 175. Although there is a corresponding port for the service NJENET-SSL, it is recommended that you use the TLS=YES parameter on the NJERMT statement or *MODIFY,NJE command instead.

NETSERV=

Specifies the name of the Netserv on which the socket will be activated. This parameter does not need to be specified during initialization, but if the parameter is omitted, it must be modified later. Otherwise, the socket cannot be started.

NODE=

Specifies the name of the node that will use this socket. This parameter does not need to be specified during initialization, but if the parameter is omitted, it must be modified later. Otherwise, the socket cannot be started.

ITRACE=

Indicates that internal tracing in the socket address space will be active.

JTRACE=

Indicates that JES tracing will be active. JES tracing occurs during JES specific exit points at the socket level in the Netserv address space during which data records, headers, and trailers are transmitted and received.

VTRACE=

Indicates that verbose tracing will be active at the socket level. Verbose tracing involves various diagnostic messages being written to the console and job log from the Netserv address space.

Rules

Additions, deletions, and modifications to SOCKETs are remembered across a JES3 hot start.

Examples

In examples where host names CHICAGO.COM and BOSTON.COM are used, it is assumed, and required, that these names have been defined to TCP/IP.

Example 1: The following is an example of a TCP/IP definition between two nodes using IP addresses. Although the HOSTNAME and PORT parameters on the NETSERV statement are not required, they are shown here to illustrate the relationship between the NETSERV statement on one node and the SOCKET statement on the other.

```
BOSTON:
NETSERV,NAME=JES3S1,SYSTEM=APPLES,
HOSTNAME=2.71.82.81,
PORT=495
SOCKET,NAME=SOCKET1,NETSERV=JES3S1,NODE=CHICAGO,
HOSTNAME=3.141.59.26
NJERMT,NAME=BOSTON,HOME=YES
NJERMT,NAME=CHICAGO,TYPE=TCPIP

CHICAGO:
NETSERV,NAME=JES3S2,SYSTEM=ORANGES,
HOSTNAME=3.141.59.26
SOCKET,NAME=SOCKET1,NETSERV=JES3S1,NODE=BOSTON,
HOSTNAME=2.71.82.81,
PORT=495
NJERMT,NAME=CHICAGO,HOME=YES
NJERMT,NAME=BOSTON,TYPE=TCPIP
```

Example 2: The following is an example of a TCP/IP definition between two nodes using a host name. Although the HOSTNAME and PORT parameters on the NETSERV statement are not required, they are shown here to illustrate the relationship between the NETSERV statement on one node and the SOCKET statement on the other.

```
BOSTON:
NETSERV,NAME=JES3S1,SYSTEM=APPLES,HOSTNAME=BOSTON.COM
SOCKET,NAME=SOCKET1,NETSERV=JES3S1,NODE=CHICAGO,
HOSTNAME=CHICAGO.COM
NJERMT,NAME=BOSTON,HOME=YES
NJERMT,NAME=CHICAGO,TYPE=TCPIP

CHICAGO:
NETSERV,NAME=JES3S2,SYSTEM=ORANGES,HOSTNAME=CHICAGO.COM
NJERMT,NAME=CHICAGO,HOME=YES
NJERMT,NAME=BOSTON,TYPE=TCPIP
```

Note:

Note:

1. A SOCKET statement is not required on CHICAGO unless it is required to start the communication on CHICAGO. If communication is started on BOSTON by using socket SOCKET1, TCP/IP will create an ephemeral socket on the CHICAGO side. JES3 on CHICAGO, in turn, dynamically creates a SOCKET definition with a unique name of @nnnnnnn, where nnnnnnn starts at 0000001 and is assigned to the first available number. JES3 calls this socket definitions a server socket, because when a TCP/IP connection is established, the node on which the connection is initiated is known to TCP/IP as a client and the responding node is known to TCP/IP as a server. A client socket also sometimes referred to as an outbound socket and a server socket is sometimes referred to as an inbound socket.

2. If BOSTON is a JES3 node and CHICAGO is a JES2 node, CHICAGO and BOSTON must define a sockets to each other. JES2 requires a socket definition for both an inbound and outbound socket; JES3 requires a socket definition only for an outbound socket.

SPART (Spool Partition Definition)

The SPART statement defines one spool partition and specifies:
- The name of the partition
- Whether JES3 is to use the partition as the default partition
- Whether JES3 is to write initialization information to the named partition
- Whether the partition is to overflow into another partition
- The number of records in each track group

Statement summary

Table 64. SPART Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	If the initialization stream includes no SPART statements, JES3 defines one spool partition and names it JES3PART. JES3 then writes all spool data and the checkpoint information to this spool partition.

Table 64. SPART Summary (continued)

Variable	Value
Placement in Initialization Stream	The SPART statements must all appear before the ENDJSAM statement.
Coding Considerations	1. You may include up to 1024 SPART statements in the initialization stream. One or more of the spool partitions can be "dummy" partitions that do not contain any data sets. 2. If you add SPART statements during a warm start, include them *following* existing SPART statements in the initialization stream. 3. The SPART parameter specified on a CLASS, FORMAT, MAINPROC, NJERMT, SYSOUT or TRACK statement must correspond to the NAME parameter specified on an SPART statement.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	The SPLIM and GRPSZ parameter specifications on the SPART statement override the SPLIM and GRPSZ parameter specifications on the BUFFER statement.
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. *MODIFY CONFIG can be used to add, remove or modify SPART statements.

Syntax

```
►►─SPART──,NAME=partitionname─────────────────────────────────────►
                              ┌─NO──┐          ┌─NO──┐
                  └─,DEF=──┴─YES─┘    └─,INIT=──┴─YES─┘

►──────────────────────────────────────────────────────────────►
         ┌─10─┐  ┌─25──┐           ┌─YES──────────┐
   └─,SPLIM=──(─┴─min─┴─,─┴─marg─┴─)─┘   └─,OVRFL=──┼─NO───────────┤
                                         └─partitionname─┘

►──────────────────────────────────────────────────────────────►◄
         ┌─30──┐
   └─,GRPSZ=──┴─nnn─┘
```
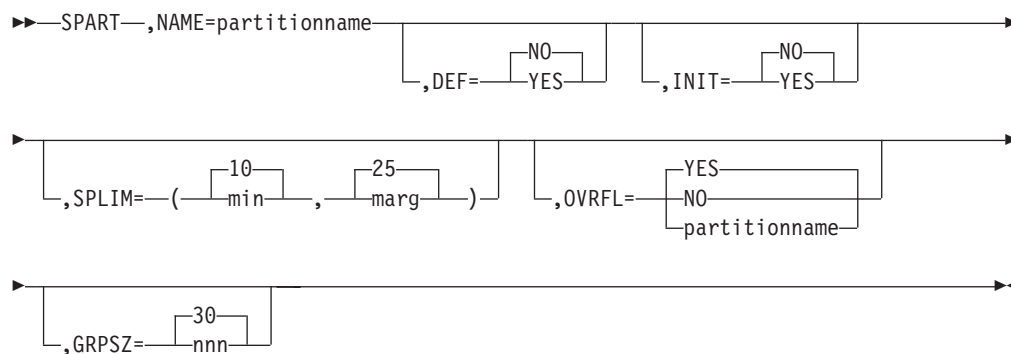
Parameters

NAME=
Specifies the 1-8 character name of the spool partition. You cannot specify DRAINED, UNAVAIL, DELETED, YES, NO or a partition name where the first character is a numeric.

DEF=
Specifies whether this is the default spool partition.

  YES
    Specifies that this is the default spool partition.

  NO Specifies that this is not the default spool partition.

If you do not specify the DEF parameter on any SPART statements, the partition defined on the first SPART statement in the initialization stream becomes the default partition.

If you have defined only one partition, that partition becomes the default, even if you have specified DEF=NO on the SPART statement.

If you specify DEF=YES on more than one SPART statement, the partition defined on the first statement that specifies DEF=YES becomes the default partition.

If you omit this parameter, JES3 uses DEF=NO for all partitions except the first; DEF=YES for the first or only partition.

If you specify an invalid subparameter, JES3 uses the parameter default.

INIT=
Specifies whether JES3 is to use this partition to write the initialization data needed for hot starts or local starts.

YES
Specifies that JES3 is to use this partition.

NO Specifies that JES3 is not to use this partition.

If you omit INIT=YES from all SPART statements, JES3 writes the initialization data to the default spool partition.

If you specify INIT=YES on more than one SPART statement, JES3 writes the initialization data to the partition defined on the first SPART statement that specifies INIT=YES.

If you specify an invalid subparameter, JES3 uses the parameter default.

SPLIM=
Specifies the minimum and marginal percentages of spool space still available in active spool partitions. An active spool partition is one containing at least one spool data set. If the minimal or marginal percentages of spool space are reached, indicating that a spool partition is nearly full, JES3 issues action messages to the operator.

min
Specifies the percentage of total spool space in an active spool partition which, when that percentage is all that is still available, defines a minimum spool space condition. For example, if **min** specifies 10, a minimum spool space condition exists when 10% or less of the spool space in an active spool partition is still available.

The percentage of spool space defining this condition may be between 0 and 99. It must, however, be smaller than or equal to the percentage defining a marginal spool space condition (see the next subparameter).

When a spool partition reaches a minimum spool space condition, JES3 issues a message stating that this condition has occurred. The message alerts the operator to inquire whether the spool partition automatically overflows into another partition. If the spool partition does overflow, no operator action is required. If the spool partition is not defined to overflow into another partition, the operator can use operator commands to take appropriate actions. For information on actions to take, see "Balancing the Workload Across Partitions" in *z/OS JES3 Initialization and Tuning Guide*.

If a minimum spool space condition arises on the default spool partition, JES3 suspends all SYSOUT buffer processing. JES3 does not resume SYSOUT buffer processing until enough spool space is freed to reach a marginal spool space condition.

Always specify a minimum spool space percentage for the default spool partition so that enough spool space remains to perform a warm start. Otherwise, if JES3 requires a warm start and not enough spool space is available, you must perform a cold start.

marg
Specifies the percentage of total spool space in an active spool partition which, when that percentage is all that is still available, defines a marginal spool space condition. For example, if *marg* specifies 20, a marginal spool space condition exists when 20% or less of the spool space in an active spool partition is still available.

The percentage of spool space defining this condition may be between 0 and 99.

When a spool partition reaches a marginal spool space condition, JES3 issues a message stating that this condition has occurred. The message alerts the operator to inquire whether the spool partition automatically overflows into another partition. If the spool partition does overflow, no operator action is required. If the spool partition is not defined to overflow into another partition, the operator can use operator commands to take appropriate actions. For information on actions to take, see "Balancing the Workload Across Partitions" in *z/OS JES3 Initialization and Tuning Guide*.

If you specify an invalid subparameter, JES3 uses the parameter default.

OVRFL=
Indicates where, if anywhere, data for this spool partition may be put when this partition becomes full. If the spool partition defined by this SPART statement is the default partition, this parameter is ignored. For guidelines on choosing overflow partitions, see "Defining Spool Partition Overflow" in *z/OS JES3 Initialization and Tuning Guide*.

YES
Specifies that this spool partition may overflow only into the default spool partition.

NO Specifies that this spool partition may not overflow into any other spool partition. Jobs requesting spool space in this partition when it is full will wait until space becomes available.

partitionname
Specifies the name of the spool partition into which this spool partition overflows.

If you specify an invalid subparameter, JES3 uses the parameter default.

GRPSZ=
Specifies the number of spool records in each track group. (The BUFSIZE parameter determines the size of each spool record.) The number must not be greater than 999. JES3 rounds the specified value up to the number of records in the nearest whole physical track for the selected spool device type. For guidelines to help you select a value for this parameter, see "Determining the Size of a Track Group" in *z/OS JES3 Initialization and Tuning Guide*.

If you change the group size parameter, you must perform a warm start. See *z/OS JES3 Commands* for information about how to replace a spool data set (WR).

If you omit this parameter, the default value is taken from the GRPSZ parameter of the BUFFER statement. If omitted from both statements, the default is 30.

If you specify an invalid subparameter, JES3 uses the parameter default.

Examples

Example 1: The following example defines two spool partitions, PARTA and PARTB. Partition PARTB is the default partition. JES3 also writes initialization information to partition PARTB.

```
SPART,NAME=PARTA
SPART,NAME=PARTB,DEF=YES,INIT=YES
```

Example 2: This example also defines two partitions, PARTC and PARTD. Because neither SPART statement specifies DEF=YES, JES3 uses the partition defined by the first SPART statement as the default partition (PARTC). Because neither SPART statement specifies INIT=YES, JES3 writes initialization information to the default partition, PARTC.

```
SPART,NAME=PARTC
SPART,NAME=PARTD
```

Example 3: This example defines 4 partitions. PART1 is the default partition. JES3 also writes initialization information to PART1. The second partition, PART2, overflows into the third partition, PART3, which overflows into the fourth partition. PART4 overflows into the default partition, PART1.

```
SPART,NAME=PART1,DEF=YES,INIT=YES
SPART,NAME=PART2,OVRFL=PART3
SPART,NAME=PART3,OVRFL=PART4
SPART,NAME=PART4,OVRFL=PART1
```

STANDARDS (Installation Defaults and Standards)

Use the STANDARDS initialization statement to specify default values for information not provided on other JES3 initialization statements or on the //*FORMAT JES3 control statement. It also provides standards to be applied to all jobs entering the system.

Statement Summary

Table 65. STANDARDS Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	STANDARDS,ALTJCL=ACCEPT, CARDS=(2,W,50),CICNT=(2,1), DBGCLASS=A,FAILURE=RESTART,JESMSG=NOTSO, LINES=(1,W,10),MAXJOBST=0,MAXASST=0, MAXINDD=MAXJOBST,PRTY=0,SETUP=JOB, INTPMID=01,STCMID=01,TSOPMID=01,INTPROC=ST, STCPROC=ST,TSOPROC=ST,BYTES=(1500,W,50), SYSLINES=(10,50),PAGES=(500,W,50) ,CIDEMAND=ANY,CIBATCH=ANY

Table 65. STANDARDS Summary (continued)

Variable	Value
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	None
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	• Warm start or cold start for all parameters. • Hot start with refresh for all parameters, except SETUP and THWSSEP. – Use the *MODIFY,X,D= command to change the CICNT, MAXASST, MAXJOBST, and PSTCNT parameters. Use the *MODIFY,S command to change the THWSSEP parameter.

Syntax

```
►►─STANDARDS─┬──────────────────────────────┬─────────────────────────────►
             │            ┌─ACCEPT─┐         │
             └─,ALTJCL=───┼─ERROR──┼─────────┘
                          ├─IGNOREW┤
                          └─COMMENT┘

►─┬──────────────────────────────────────────────────────────────────────┬─►
  │         ┌─2──┐   ┌─WARNING or W─┐   ┌─50─┐  │
  └─,CARDS=(─┴─nnn┴─,─┼─CANCEL or C──┼─,─┴─nnn┴─)┘
                      └─DUMP or D────┘

►─┬──────────────────────────────────────────┬─┬──────────────┬───────────►
  │         ┌─2─────────┐ ┌─1──────────┐     │ │        ┌─ANY──┐│
  └─,CICNT=(─┴─maxbatch─┴,┴─maxdemsel──┴─)────┘ └─,CIBATCH=┼─CLASS┤│
                                                         └─JOB──┘

►─┬──────────────────┬─┬────────────────────────────────┬─────────────────►
  │          ┌─ANY──┐│ └─,PSTCNT=(maxbatch,maxdemsel)────┘
  └─,CIDEMAND=┼─CLASS┤│
             └─JOB──┘

►─┬────────────────────┬─┬──────────────────────┬─────────────────────────►
  │          ┌─A────────┐│ │         ┌─RESTART─┐  │
  └─,DBGCLASS=┴─msgclass─┴┘ └─,FAILURE=┼─CANCEL──┼─┘
                                       ├─HOLD────┤
                                       └─PRINT───┘

►─┬──────────────────────────┬────────────────────────────────────────────►
  │        ┌─NOTSO─────────┐  │
  └─,JESMSG=┼─ Other Options┼──┘
           └─ALL───────────┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,LINES──(──┬──1──┬──,──┬─WARNING or W─┬──,──┬──50──┬──
                └─nnn─┘     ├─CANCEL or C──┤     └─nnn──┘
                            └─DUMP or D────┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,BYTES──(──┬─1500────┬──,──┬─WARNING or W─┬──,──┬──50──┬──
               └─nnnnnnn─┘     ├─CANCEL or C──┤     └─nnn──┘
                                └─DUMP or D────┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,PAGES──(──┬─500─────┬──,──┬─WARNING or W─┬──,──┬──50──┬──
               └─nnnnnnn─┘     ├─CANCEL or C──┤     └─nnn──┘
                                └─DUMP or D────┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,MAXJOBST=─┬──0──┬─┘ └─,MAXASST=─┬──0──┬─┘ └─,MAXINDD=─┬─MAXJOBST─┬─┘
               └─nnn─┘              └─nnn─┘               └─nnn──────┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,PRTY=─┬──0────────────┬─┘  └─,SETUP=─┬─JOB──┬─┘
           └─defaultpriority─┘             ├─NONE─┤
                                           ├─DHWS─┤
                                           ├─THWS─┤
                                           └─HWS──┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,SYSLINES=─┬─10────┬──,──┬─50──┬─┘  └─,THWSSEP=─┬─IGNORE──┬─┘
               └─nnnnn─┘     └─mmm─┘               ├─PREFER──┤
                                                    └─REQUIRE─┘
```

```
►──────────────────────────────────────────────────────────────────────────►
   └─,INTPMID=─┬─01─┬─┘  └─,STCPMID=─┬─01─┬─┘  └─,TSOPMID=─┬─01─┬─┘
             └─xx─┘                └─id─┘                └─id─┘
```

```
►──────────────────────────────────────────────────────────────────────────◄
   └─,INTPROC=─┬─ST─┬─┘  └─,STCPROC=─┬─ST─┬─┘  └─,TSOPROC=─┬─ST─┬─┘
             └─xx─┘                └─xx─┘                └─xx─┘
```

Other Options:

```
        (1)
|──────────(──┬─────┬──┬─────────┬──)──────────────────────────────────|
             └─,◄──┘  ├─NOTSO───┤
                      ├─NOSTC───┤
                      └─NOBATCH─┘
```

Notes:

1   You are allowed a maximum of only 3 parameters within the parenthesis.

Parameters

ALTJCL=

Specifies whether JES3 recognizes JES3 control statements in JCL that begin
with "/*" instead of "//*" (for example, /*MAIN instead of //*MAIN).

• ERROR - indicates that JES3 control statements beginning with "/*" will be
rejected, and will cause the job to be canceled with an error message.

- IGNOREW - indicates that JES3 control statements beginning with "/*" will be rejected, and will cause a warning message to be issued, but will not cause the job to be canceled.
- COMMENT - indicates that JES3 control statements beginning with "/*" will be rejected. No messages will be issued.
- ACCEPT - indicates that certain JES3 control statements beginning with "/*" will be processed. Note that some JES3 control statements, such as //*NET, must begin with "//*". These will be treated as comments. This is the default.

CARDS=
Defines the maximum number of cards a job may punch and how to handle jobs exceeding this maximum.

nnn
Specifies the maximum number of cards, in hundreds, from 1 to 999. The default is 2; that is, 200 punched cards.

CANCEL or C
Specifies that a job be canceled without a dump if it exceeds nnn.

DUMP or D
Specifies that a job be canceled with a system abend dump if the job exceeds nnn.

WARNING or W
Specifies that JES3 issue a warning message and continue processing the job if it exceeds the punch limit. JES3 reissues a warning message for every additional 100 (default) cards the job punches.

mmm or 50
Regulates the frequency that JES3 issues message IAT1600 after exceeding the maximum punch limit (*mmm* is a percentage of the maximum punch limit). The value you specify must be a multiple of 10 between 10 and 100 inclusive. Specifying too low a value can cause JES3 to flood the system with messages which in turn, can cause a shortage of staging areas and console buffers. To decrease the number of messages issued, use higher values for *nnn* and *mmm*.

If you specify an invalid subparameter, JES3 uses the parameter default.

CIBATCH=
Indicates whether batch jobs must have CI processing limited to certain processors. This will apply to all batch jobs unless overridden by the CIBATCH parameter on the CLASS statement pertaining to a job's JOB CLASS.

- JOB - indicates CI processing must be performed on a system on which the job is eligible to run.

  Note: Either the SYSTEM or SYSAFF parameter on the JOB control statement, or the SYSTEM parameter on the //*MAIN control statement, are considered for CI scheduling purposes when determining where the job is eligible to run. The job's scheduling environment does not apply.
- CLASS - indicates CI processing must be performed on a system on which the job's JOB CLASS is enabled.
- ANY - indicates CI processing may be performed on any processor regardless of job or class eligibility. This is the default.

CIDEMAND=
Indicates whether demand select jobs must have CI processing limited to

certain processors. This will apply to all demand select jobs unless overridden by the CIDEMAND parameter on the CLASS statement pertaining to a job's JOB CLASS.

- JOB - indicates CI processing must be performed on a system on which the job is eligible to run.
- CLASS - indicates CI processing must be performed on a system on which the job's JOB CLASS is enabled.
- ANY - indicates CI processing may be performed on any processor regardless of job or class eligibility. This is the default.

CICNT=
Specifies the maximum number of CI DSPs that can operate in the JES3 global address space at any time. The first subparameter (*maxbatch*) specifies the maximum number of CI DSPs that process batch jobs. The second subparameter (*maxdemsel*) specifies the maximum number of CI DSPs that process demand select jobs (that is, started tasks and TSO LOGONs).

The sum of the two subparameters cannot exceed 255. CI DSPs defined to process batch jobs cannot be used to process demand select jobs, and vice versa.

Specify as small a number as practical, since this parameter can be modified using an operator command. The count can be incremented or decremented using the *MODIFY,X operator command.

Note:
1. If you specify CICNT=(0,0), no CI DSPs will run in the JES3 global address space. However, specifying CICNT=0 defaults to CICNT=(0,1) and results in one demand select CI DSP in the JES3 global address space.
2. If you define C/I FSS address spaces for your installation, JES3 creates a special C/I subtask in the JES3 global address space for starting C/I FSS address spaces; it cannot be used for starting other tasks or TSO LOGONs. This subtask allows a C/I FSS address space to be started even if you specify CICNT=(0,0) in the initialization stream.

If you specify an invalid subparameter, JES3 uses the parameter default.

PSTCNT=
Specifies the maximum number of POSTSCAN DSPs that can operate in the JES3 global address space at any one time. The first subparameter *(maxbatch)* indicates the maximum number of POSTSCAN DSPs that can process batch jobs. The second subparameter *(maxdemsel)* indicates the maximum number of POSTSCAN DSPs that process demand select jobs (that is, started tasks and TSO LOGONs). A POSTSCAN DSP defined as processing batch jobs cannot be used to process demand select jobs, and vice versa.

The total of both numbers specified for this parameter must be between 1 and 32,767 (inclusive).

For guidelines on choosing a value for this parameter, see "Configuring C/I Processing" in *z/OS JES3 Initialization and Tuning Guide*.

Parameter Default: The combined maximum number of CI DSPs in the JES3 complex that can process batch jobs (maxbatch) and demand select jobs (maxdemsel). (That is, the total number of CI DSPs specified on the CICNT parameter of the STANDARDS statement, plus the number of CI DSPs specified on the DSPCNT parameter of every FSSDEF statement for a C/I FSS address space, including all values allowed to default.)

DBGCLASS=

Specifies the default message class for the debug data set written by the debug facility and the default SYSOUT class for JES3 Dynamic Support Programs (DSP).

FAILURE=

Specifies the default job recovery option to be applied to jobs active at the time of a main restart failure. This parameter is used if the FAILURE option is not indicated on the CLASS statement associated with the job and the job does not have a main MVS checkpoint/restart option specified in its JCL.

CANCEL

Specifies that the job be canceled on the main.

HOLD

Specifies that the job be held for restart on the main.

PRINT

Specifies that the job be printed and held for restart on the main.

RESTART

Specifies that the job be restarted on the main at the beginning of the first step.

Note: If a job has been registered as an element of automatic restart management, the FAILURE= keyword is ignored.

If automatic restart management decides to start the job, all non-spin sysout data sets created during the previous execution will be deleted.

A job in a JES3 system can have a failure option specified in one of the following:

1. //*MAIN JECL statement in the job's JCL
2. CLASS statement in the JES3 initialization stream
3. STANDARDS statement in the JES3 initialization stream

Note: Higher items override lower items in the above list.

The failure option is used to determine the disposition of a job when one of the following occurs:

- The job is executing and the processor on which the job is executing fails (is IPLed).
- The job terminates abnormally.
- The job goes through end of memory.
- A *RESTART,main,jobname/jobno command has been issued for a job that is already running and the job is not registered with Automatic Restart Manager (ARM). If the failure option is RESTART, the job will be restarted. If the failure option is CANCEL, the *RESTART,main,jobname/jobno command is not accepted, and the job continues to run. If the failure option is HOLD, the job is canceled, and then placed in operator hold. If the failure option is PRINT, the job is printed, then it is placed in operator hold.
- A *START,mainname,FLUSH command was issued for a local processor and there were jobs running on the specified local.
- A *MODIFY Q,DD=ddn,STOP command was issued for a spool data set. This command holds the specified spool data set and suspends further scheduling for all jobs that have data on the data set, if the jobs are not currently active on a processor. But, if there were a job that had data on the

data set, and it was active on main, JES3 issues a command to MVS on the appropriate processor to (MVS) cancel the job. All jobs (whether active on main or not) get placed into spool hold status. Later, if a *MODIFY Q,DD=ddn,RELEASE command is issued to release the specified spool data set, and the jobs from spool hold status, and the job had been active in main when it was put into spool hold status, the failure options are used to (JES3) cancel the job, place the job in operator hold, print the job and then place it into operator hold, or restart the job.

JESMSG=
Specifies whether JES3 suppresses WTOs and WTORs that are added to the JESMSGLG data set for TSO users, started tasks, or batch jobs. Suppressing the WTOs and WTORs added to the JESMSGLG data set significantly reduces the subsystem interface traffic and the number of spool I/O requests needed to support JESMSGLG logging.

NOTSO
Indicates that JES3 should not log WTOs and WTORs originating from TSO users in the JESMSGLG spool data set.

NOSTC
Indicates that JES3 should not log WTOs and WTORs originating from started tasks in the JESMSGLG spool data set.

NOBATCH
Indicates that JES3 should not log WTOs and WTORs originating from batch jobs in the JESMSGLG spool data set.

ALL
Indicates that JES3 should log all WTOs and WTORs in the JESMSGLG spool data set.

If you specify this parameter, you cannot specify any other parameter. If you do so, JES3 uses the default value of **NOTSO**.

If you specify an invalid sub-parameter, JES3 uses the parameter default of **NOTSO**.

Note: Using the JESMSG= keyword on the CLASS initialization statement overrides the JESMSG= specification on the STANDARDS initialization statement. The asynchronous nature of message processing results in the following situations:

- JES3 is not able to guarantee the order of messages in the JESMSGLG.
- It is possible that multi-line messages might have other messages interspersed within them.

LINES=
Defines the maximum number of lines to be printed for a single job and how to handle jobs exceeding this maximum.

nnn
Specifies the maximum number of lines, in thousands, from 1 to 999. The default is 1; that is, 1000 lines.

CANCEL or C
Specifies that a job be canceled if it exceeds nnn.

DUMP or D
Specifies that a job be canceled with a system abend dump is the job exceeds nnn.

STANDARDS

WARNING or W

Specifies that JES3 issue a warning message and continue processing the job if it exceeds the line limit. JES3 reissues a warning message for every additional 500 (default) lines the job prints.

mmm or 50

Regulates the frequency that JES3 issues message IAT1600 after exceeding the maximum line limit (*mmm* is a percentage of the maximum line limit). The value you specify must be a multiple of 10 between 10 and 100 inclusive. Specifying too low a value can cause JES3 to flood the system with messages which in turn, can cause a shortage of staging areas and console buffers. To decrease the number of messages issued, use higher values for *nnn* and *mmm*. If you specify an invalid parameter, JES3 uses the parameter default.

If you specify an invalid subparameter, JES3 uses the parameter default.

MAXJOBST=

Specifies the maximum number of JCL statements that a batch job can include. JES3 control statements are not counted. This limit applies no matter where in the complex the job's C/I processing takes place. For a discussion about how to select the job JCL limit, see "Preventing a Job from Dominating the SWA" in *z/OS JES3 Initialization and Tuning Guide*.

nnn

Specifies the total number of JCL statements that a single job may contain and still be processed by a converter/interpreter (CI) DSP. *nnn* may be any decimal integer from 0 to 99999999, inclusive. Specifying 0 indicates that you do not want to limit the total number of JCL statements in a single job.

If you specify an invalid subparameter, JES3 uses the parameter default.

MAXASST=

Specifies the maximum number of JCL statements for batch jobs that may be processed concurrently by all CI DSPs in the JES3 global address space. The value must be an integer between 0 and 99999999, inclusive. A value of 0 means no JCL statement limit applies; JES3 does not check how many JCL statements are being processed. For guidelines on choosing a value for this parameter, see *z/OS JES3 Initialization and Tuning Guide*.

If you specify an invalid subparameter, JES3 uses the parameter default.

MAXINDD=

Specifies the maximum number of JCL SYSIN DD statements that a batch job can include. Only DD* and DD DATA DD statements are included in this count. Other types of DD statements are not counted. For a discussion about how to select the job SYSIN DD limit see "Preventing a Job from Dominating the JSAM Buffers" in *z/OS JES3 Initialization and Tuning Guide*.

nnn

Specifies the number of JCL SYSIN DD statements that a single job may contain and still be processed. *nnn* may be any decimal integer from 0 to 99999999, inclusive. Specifying 0 indicates that you do not want to limit the number of DD statements in a single job.

If you specify an invalid subparameter, JES3 uses the parameter default.

Note: The parameter default will be whatever value was specified for the MAXJOBST parameter, or the default value for MAXJOBST if MAXJOBST was not specified.

PRTY=
Specifies the default job priority (0 to 14) for a job whose priority is not specified in the JCL or on the CLASS statement.

If you specify an invalid subparameter, JES3 uses the parameter default.

SETUP=
Indicates the system standard for allocation of devices identified by the NAME parameter of SETNAME statement(s). The SETUP parameter specifies the type of setup processing, such as job setup, tape high watermark setup, or disk high watermark setup. This parameter also provides the default for the SETUP parameter on the //*MAIN JES3 statement and also, SETUP=NONE overrides the SETUP parameter on the //*MAIN statement.

NONE
Specifies that no preexecution setup is to occur. All devices are allocated, mounted, and deallocated by MVS; the SETPARAM statement is ignored. The SETUNITS and SETNAME tables are created even though MDS processing does not occur.

JOB
Specifies that preexecution setup is to occur by job for those devices (indicated in the UNIT parameter of DD statements for the job) which are identified in the SETNAME statement. All devices for the job are allocated to the job from first step to last. This type of setup improves job turnaround time at the expense of overall device usage efficiency.

DHWS
Specifies that high watermark setup is to occur for only MVS direct-access units identified in the SETNAME statement. The direct-access units must also be specified on the TYPE parameter of the HWSNAME statement. MDS will attempt to allocate the minimum number of direct-access devices for a job. Other devices are allocated based on the amount required for the entire job.

If you specify an invalid subparameter, JES3 uses the parameter default.

THWS
Specifies that high watermark setup is to occur for only tape units identified in the SETNAME statement. The tape units must also be specified on the TYPE parameter of the HWSNAME statement. MDS will attempt to allocate the minimum number of tape devices for a job. Direct-access devices are allocated based on the amount for the entire job.

HWS
Specifies that high watermark setup is to occur for all devices required for a job running on an MVS processor which are indicated in the SETNAME statement. The devices must also be specified on the TYPE parameter of the HWSNAME statement. MDS will attempt to allocate the minimum number of devices required for the job to run.

SYSLINES=

nnnn
Defines the maximum number of JESYSMSG message lines, in thousands, that are issued before the system issues message IAT1613. **nnnn** may be any decimal integer from 1 to 9999, inclusive. The default is 10 (10,000 messages). If you specify an incorrect value, JES3 uses the default.

mmm
The frequency at which JES3 issues message IAT1613 after exceeding the

original SYSLINES limit. **mmm** is a percentage of the original SYSLINES limit. The value you specify must be a multiple of 10 between 10 and 100 inclusive. The default is 50 (50%). If you specify an incorrect value, JES3 uses the default.

Specifying values too low can cause JES3 to issue message IAT1613 prematurely or too frequently for normal conditions (for example, a long running started task). To decrease the number of IAT1613 messages issued, use higher *nnnn* and *mmm* values.

THWSSEP=
Specifies whether you want scratch and specific tape requests, or scratch tape requests of different media types separated during high watermark processing. This parameter is valid only when you specify the HWS or THWS parameter of the SETUP parameter.

You can use this parameter to direct specific and scratch tape requests to different types of tape drives. For example, you may want JES3 to allocate only scratch tape requests to an IBM 3480 that is equipped with an automatic cartridge loader.

You can also use this parameter to direct scratch tape requests that have a preferred media type to different drives. JES3 attempts to allocate a device matching the media type whenever possible.

An end user can override this parameter using a //*MAIN JECL statement. The values also can be modified using the JES3 *MODIFY,S command. For information about using the JES3 *MODIFY,S command see *z/OS JES3 Commands*.

IGNORE
Specifies that JES3 not separate scratch and specific tape requests and not separate scratch tape requests of different media types during high watermark processing. Both scratch and specific tape requests and scratch requests of different media types can be allocated on the same tape drive.

PREFER
Specifies that JES3 attempt to allocate scratch and specific tape requests on separate tape drives and attempt to allocate scratch tape requests of different media types on separate tape drives without allocating additional devices. If JES3 cannot separate the requests, scratch and specific tape requests and scratch requests of different media types will be allocated on the same tape drive.

REQUIRE
Specifies that JES3 should not allocate scratch and specific tape requests on the same tape drive and not allocate scratch tape requests of different media types on the same tape drive, even if JES3 must allocate additional tape drives to satisfy the request.

INTPMID=
Specifies the 2-byte identifier (ID) of the converter/interpreter options list for jobs entered using the internal reader. The ID must match the ID specified by the PARMID parameter on a CIPARM initialization statement. If no CIPARM statements are included in the initialization stream, the default value is used.

If you specify an invalid subparameter, JES3 uses the parameter default.

STCPMID=
> Specifies the 2-byte identifier of the parameter list to be used when interpreting started task jobs. The parameter list specified must be defined on a CIPARM statement.

TSOPMID=
> Specifies the 2-byte identifier of the parameter list to be used when interpreting TSO LOGON jobs. The parameter list must be defined on a CIPARM statement.
>
> For TSO-submitted jobs, the message class is determined as follows:
> - If the job has the MSGCLASS parameter coded on the job statement, the value specified on that parameter is used.
> - Otherwise, the message class is taken from the MSGCLASS or the HOLD (HOLDCLASS) parameters specified in the user's profile in either the TSO/E UADS or the TSO/E segment of the RACF data base. The MSGCLASS parameter value is used as the message class if the job was submitted using the TSO/E SUBMIT jjj or SUBMIT jjj HOLD command. The HOLD (or HOLDCLASS) parameter value is used as the message class if the job was submitted using the TSO/E SUBMIT jjj HOLD command.
> - The specified or default message class from the CIPARM initialization statement associated with the INTPMID= parameter on the STANDARDS initialization statement.
>
> For jobs submitted by another job through the internal reader (regardless of whether of not the submitting job is from TSO):
> 1. If the job has the MSGCLASS parameter coded on the JOB statement, the value specified on that parameter is used.
> 2. The SYSOUT class from the DD statement that specifies INTRDR.
> 3. The specified or default message class from the CIPARM initialization statement associated with the INTPMID= parameter on the STANDARDS initialization statement.

INTPROC=
> Specifies the appropriate IATPLBxx procedure library to be searched by the MVS converter when resolving procedure references for jobs submitted using the internal reader. This procedure library must be defined by an IATPLBxx DD statement in the JES3 start procedure or by a DYNALLOC initialization statement. An individual job can override this value using the PROC parameter on the //*MAIN JES3 control statement.
>
> **Note:** Jobs entering from a disk reader or NJERDR use the standard procedure library as defined on the IATPLBST DD statement in the JES3 procedure or from the DYNALLOC initialization statement.
>
> If you specify an invalid subparameter, JES3 uses the parameter default.

STCPROC=
> Specifies the appropriate IATPLBxx procedure library used for started task jobs. This procedure library must be defined by a IATPLBxx DD statement in the JES3 procedure or a DYNALLOC initialization statement. The default is IATPLBST.

TSOPROC=
> Specifies the appropriate IATPLBxx procedure library to be used for TSO LOGON jobs. This procedure library must be defined on a IATPLBxx DD statement or a DYNALLOC statement. The default procedure library is IATPLBST.

BYTES=

Specifies the maximum number of bytes of data that can be written to a spool data set for a job and the action to be taken for any job that exceeds the maximum.

nnnnnn

Specifies the maximum number of bytes of data that can be written to a spool data set for a job. The value specified must be between 1 and 999999, inclusive, and represents thousands of bytes (that is, 1000 times nnnnnn) of spool data. This value may be overridden by the BYTES parameter on the //*MAIN JES3 job control statement.

C or CANCEL

Specifies that a job whose output exceeds the byte limit is to be canceled without a dump.

D or DUMP

Specifies that a job whose output exceeds the byte limit is to be canceled with a system abend dump.

W or WARNING

Specifies that JES3 issue a warning message and continue processing the job if it exceeds the byte limit. JES3 reissues a warning message for every additional 750,000 (default) bytes the job writes to spool.

mmm or 50

Regulates the frequency that JES3 issues message IAT1600 after exceeding the maximum number bytes (*mmm* is a percentage of the maximum byte limit). The value you specify must be a multiple of 10 between 10 and 100 inclusive. Specifying too low a value can cause JES3 to flood the system with messages which in turn, can cause a shortage of staging areas and console buffers. To decrease the number of messages issued, use higher values for *nnnnnn* and *mmm*.

If you specify an invalid subparameter, JES3 uses the parameter default.

PAGES=

Specifies the maximum number of pages for a single job, and the action to be taken for any job whose output exceeds the maximum.

nnnnnnnn

Specifies the maximum number of pages for a single job. This value may be overridden by the PAGES parameter on the //*MAIN JES3 job control statement. The specified number must be between 1 and 16777215, inclusive.

C or CANCEL

Specifies that a job whose output exceeds the page limit is to be canceled without a dump.

D or DUMP

Specifies that a job whose output exceeds the page limit is to be canceled with a system abend dump.

W or WARNING

Specifies that JES3 issue a warning message and continue processing the job if it exceeds the page limit. JES3 reissues a warning message for every additional 250 (default) pages that the output exceeds the limit.

mmm or 50

Regulates the frequency that JES3 issues message IAT1600 after

exceeding the maximum page limit (*mmm* is a percentage of the maximum page limit). The value you specify must be a multiple of 10 between 10 and 100 inclusive. Specifying too low a value can cause JES3 to flood the system with messages which in turn, can cause a shortage of staging areas and console buffers. To decrease the number of messages issued, use higher values for *nnnnnnnn* and *mmm*.

If you specify an invalid subparameter, JES3 uses the parameter default.

Example

This example specifies installation default values for information not provided on other JES3 initialization statements or JES3 control statements.

```
STANDARDS,CICNT=5,PRTY=2,FAILURE=PRINT,LINES=(100,W),CARDS=(200,W),
SETUP=NONE,PAGES=(1000,W),BYTES=(1500,W),INTPMID=I1,STCPMID=S1,
TSOPMID=T1,INTPROC=I1,STCPROC=S1,TSOPROC=T1
```

SYSID (Define the Default MVS/BDT Node)

Use the SYSID initialization statement to define the default MVS/Bulk Data Transfer (BDT) node for this JES3 complex. If the JES3 complex includes one or more MVS/BDT facilities (program product 5665-302), you must include this statement in the JES3 initialization stream. JES3 submits MVS/BDT commands and transactions to the MVS/BDT node defined by this statement unless otherwise specified on the command or transaction.

Statement Summary

Table 66. SYSID Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	Include only one SYSID statement in the JES3 initialization stream.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters.

Syntax

```
►►──SYSID──,NAME=nodename──────────────────────────────────────────►◄
                              │         ┌─108─────┐
                              └─,CLASS=─┼─msgdest─┤
                                        ├─nnn─────┤
                                        └─S12─────┘
```
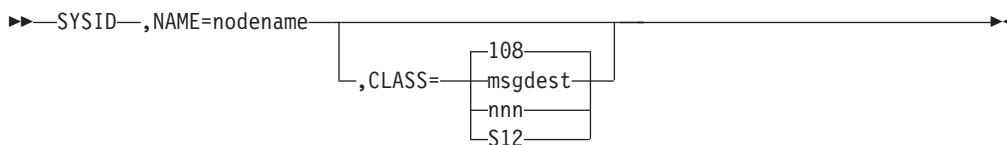
Parameters

NAME=

Specifies the name of the default MVS/BDT node. This name must match the node name on a MVS/BDT SYSID initialization statement.

CLASS=

Specifies the routing class information that should be applied to MVS/BDT "system" messages that do not specify routing information. MVS/BDT "system" messages are those issued by MVS/BDT dynamic application programs (DAPs) with no explicit transaction origin id.

If you let this parameter default, routing code 108 will be applied to all MVS/BDT "system" messages. 108 is the routing code equivalent of JES3 Dest Class S12.

This value may be specified as a JES3 destination class or as an MVS routing code. If a routing code is used, nnn specifies a decimal number from 1 through 28, or 41 through 128. Routing codes 29 through 40 are reserved for IBM's use and will be ignored if specified.

SYSOUT (SYSOUT Class Characteristics)

Use the SYSOUT initialization statement to define SYSOUT class characteristics. The SYSOUT statement is required for each JES3 output class that requires other than TYPE=PRINT processing (JES3 initially sets all SYSOUT classes to TYPE=PRINT).

The SYSOUT statement parameters are applicable to all SYSOUT created by JES3.

Also, be aware that if the SYSOUT is associated with an output descriptor that is defined by the OUTPUT JCL statement or TSO OUTDES command, then the output characteristics are merged for SYSOUT on the HOLD queue.

Statement Summary

Table 67. SYSOUT Summary

Variable	Value
Required/Optional Statement	Optional
Statement Default	None
Placement in Initialization Stream	This statement must follow the ENDJSAM statement.
Coding Considerations	If STANDARD is specified for any parameters, JES3 uses the corresponding value from the OUTSERV statement.
Security Usage	Use the FLASH parameter to print security classifications on 3800 printer output. Do not confuse the FLASH security classifications with RACF security labels which can also be printed on job output. If you are using both FLASH and RACF to print security classifications, ensure that their meanings agree and that you do not overlay the security label printed by PSF.
Performance Considerations	None

Table 67. SYSOUT Summary (continued)

Variable	Value
Initialization Stream Overrides	1. The CARR, CHARS, FLASH, FORMS, MODIFY, STACKER, TRAIN and THRESHLD parameters on this SYSOUT statement override corresponding values on the OUTSERV and DEVICE statements. 2. The TRKGRPS parameter on this SYSOUT statement overrides corresponding values on the CLASS and MAINPROC initialization statements and on the //*MAIN JES3 control statement. 3. If specified, the TRUNC parameter on this SYSOUT statement overrides the corresponding value on the BUFFER initialization statement.
Restart or Command Modification	• Warm start or cold start for all parameters. • The SPART parameter has a dependency on the NAME parameter of the SPART statement. During a hot start with refresh, JES3 does not process the SPART statements and uses the SPART statements from the last warm or cold start. If you add a SPART statement during a hot start with refresh, JES3 ignores it and issues error messages if the SYSOUT statement references the SPART statement you attempted to add.

Syntax

```
►──┬─────────────────────────────────────────────────┬──┬─────────────┬──►
   └─,HOLD=─(─┬──────┬──┬────────┬──┬──────┬─)─┘      └─,INT=─┬─YES─┬─┘
             └─TSO─┘  └─,EXTWTR─┘  └─,3540─┘              └─NO──┘

►──┬─────────────────────────────────────┬──┬───────────────┬──┬─────────┬──►
   └─,MODIFY=─┬─STANDARD─────────────┬─┘  └─,OVFL=─┬─ON──┬─┘  └─,PRTY=nn─┘
             ├─(NONE)───────────────┤          └─OFF─┘
             └─(─┬──────┬─┬─────┬─)─┘
                 └─name─┘ ├─(0)─┤
                          ├─(1)─┤
                          ├─(2)─┤
                          └─(3)─┘

►──┬──────────────────────┬──┬──────────────────┬──►
   └─,SPART=partitionname─┘  └─,STACKER=─┬─STANDARD─┬─┘
                                        ├─C────────┤
                                        └─S────────┘

►──┬──────────────────────┬──┬────────────────────────┬──►
   └─,TRAIN=─┬─name─────┬─┘  └─,THRESHLD=─┬─-1───────┬─┘
            └─STANDARD─┘                 ├─STANDARD─┤
                                         └─limit────┘

►──┬────────────────────────────────────────┬──┬──────────────┬──►
   └─,TRKGRPS=─(─┬─1──────,──2───────────┬─)─┘  └─,TRUNC=─┬─YES─┬─┘
               ├─prigrps────────────────┤             └─NO──┘
               └─prigrps──,──secgrps────┘

►──┬──────────────────────────────────┬──┬──────────────────┬──►
   └─,TYPE=─(─┬─USER1,RSVD──────────┬─)─┘  └─,COMPACT=comptab─┘
            ├─USER2,PUNCH─────────┤
            │         ┌─,PRINT─┐   │
            └─DSISO───┴────────┴───┘

►──┬────────────────────┬──┬──────────────────────────────────────────┬──►◄
   └─,CHNSIZE=─┬─DS──────┬─┘  └─,OUTDISP=─┬─HOLD──────────────────────┬─┘
             ├─nnn─────┤             ├─KEEP───────────────────────┤
             └─(nnn,mmm)┘            ├─LEAVE──────────────────────┤
                                     ├─PURGE──────────────────────┤
                                     ├─WRITE──────────────────────┤
                                     └─(─┬─HOLD──┬──┬─,HOLD──┬─)───┘
                                         ├─KEEP──┤  ├─,KEEP──┤
                                         ├─LEAVE─┤  ├─,LEAVE─┤
                                         ├─PURGE─┤  ├─,PURGE─┤
                                         └─WRITE─┘  └─,WRITE─┘
```

Notes:

1   Maximum of 8.

Parameters

CLASS=

    Specifies the SYSOUT class (A-Z,0-9) being defined.

CARR=

    Specifies the name (1 to 8 characters) of the carriage tape or FCB required to print this SYSOUT class. This parameter overrides the CARRIAGE parameter specified as an installation default on the OUTSERV statement and the

CARRIAGE parameter on the DEVICE statement indicating the carriage tape or FCB initially mounted. If STANDARD is specified, the carriage tape name is taken from that specified on the OUTSERV initialization statement.

If the device is a 3211, 3203, or 3800 printer, a module must be included in SYS1.IMAGELIB, having the name FCB2xxxx or FCB3xxxx, where xxxx is the 1- to 4-character name of the FCB.

Note: If you are using the user exit IATUX23 and you are coding FCBs for use with JES3 defined printers that are other than 3800, then you must code a channel 12 code in the FCB.

For more information about SYS1.IMAGELIB, refer to *z/OS DFSMSdfp Advanced Services*.

CHARS=
Specifies the name of the character image to be used in processing this SYSOUT class.

id1-id4
Specifies up to four images to be used for processing this SYSOUT class.

STANDARD
Specifies that the image to be used is as defined by the OUTSERV statement.

CONTROL=
Specifies the type of carriage spacing control required to print this SYSOUT class.

PROGRAM
Specifies that the carriage control character is to be the first character of each logical record in the data set.

SINGLE
Specifies single spacing for the data set.

DOUBLE
Specifies double spacing for the data set.

COPIES=
Specifies the number of copies of each data set to be produced.

num
Specifies the number of copies, from 0 to 255, to be produced for this SYSOUT class. If specified alone, it applies to all printers.

n1-n8
Specifies the number of transmissions of a data set and the number of copies, from 1 to 255, to be produced with each transmission. If n1 is specified, it is applicable only to impact printers. For example, COPIES=(1,5,2,6) produces one copy on an impact printer and three transmissions of the data set to a 3800 printer, where the first transmission will produce five copies, the second will produce two copies, and the third will produce six copies.

DEST=
Specifies the printer or punch to process this SYSOUT class. This parameter indicates the device specifically by name or nonspecifically by device type, device group, or both.

devname

Specifies a 1- to 8-character name for the printer or punch. The name must match the JNAME parameter on a DEVICE statement defining this device.

dtype

Specifies a 1- to 8-character device type which matches the DTYPE parameter on a DEVICE statement for a printer or punch. If dtype only is specified, then any device of this type may process the output class. If dtype is specified with dgroup, then any device of that type within the group will process the output class.

dgroup

Specifies a 1- to 8-character device group name which matches the DGROUP parameter on a DEVICE statement for a printer or punch. If dgroup only is specified, then any device in that group may process the output class. If dgroup is specified with dtype, then any device in that group of the specified type will process the output class.

nodename

Specifies a 1- to 8-character name that is the name of the node to which JES3 networking output is directed. The nodename cannot be defined as the name of the current home node.

Note:

1. If the DEST= parameter is omitted, there is no default destination associated with this class.

2. If you specify DEST=(dtype), JES3 assigns LOCAL as the dgroup.

FLASH=

Specifies the name of the forms flash cartridge for a 3800 printer to be used on this SYSOUT class.

id Specifies the name of the forms flash cartridge.

cnt

Specifies the number of consecutive copies the forms flash is to print.

STANDARD

Specifies that the forms flash cartridge to be used was defined in the OUTSERV statement.

FORMS=

Specifies the name of the printer forms or card stock (1-to-8 alphanumeric or national characters) to be used when processing this output class. This parameter overrides the FORMS parameter specified on the OUTSERV or DEVICE statement. If STANDARD is specified, the forms or card stock specification is taken from that specified on the OUTSERV initialization statement.

HOLD=

Specifies that the output data set is to be held for use by a system function.

TSO

Specifies that the data set is to be held for return to a TSO user.

EXTWTR

Specifies that the data set is to be returned to an external writer.

3540

Specifies that the data set is to be returned to the 3540 external writer.

3540
Specifies that the data set is to be returned to the 3540 external writer.

INT=
Specifies whether the interpret option is required for punched output.

    YES
        Indicates that a card punch with the interpret option (device type PUN3525I or 3525M) is to be used. Note that the DEST parameter must include a PUN3525I (or M) punch; otherwise, INT=NO is assumed.

    NO Indicates that the interpret option is not needed.

MODIFY=
Specifies the copy modification module (for 3800) and table reference character to be used for this SYSOUT class.

    STANDARD
        Specifies the copy modification module to be used as defined by the OUTSERV statement.

    name
        Specifies the name of the copy modification module to be used (1-4 characters).

    NONE
        Specifies that no copy modification module is to be used.

    0-3
        Specifies the table reference character to be used with the copy modification module.

OVFL=
Specifies the overflow option.

    ON Indicates that the printer should eject whenever the end-of-forms indicator is sensed (skips to channel 12).

    OFF
        Indicate that the forms overflow control is not to be used.

PRTY=
Specifies the priority at which the data set is to enter the output queue. The value may be from 0 to 255.

SPART=
Specifies the spool partition that JES3 is to use when it writes data for this SYSOUT class. To specify the default spool partition, omit this parameter. If you specify a partition name, the name must match the NAME parameter on a SPART statement. If you specify the SPART parameter, you must also specify TYPE=DSISO.

If you specify an undefined partition name, JES3 uses the default spool partition.

STACKER=
Specifies the 3800 stacker in which this SYSOUT class output is to be placed.

    STANDARD
        Specifies the stacker as defined in the OUTSERV statement.

    C Specifies the continuous stacks. If no 3800 has BTS features, STACKER=C is forced.

    S Specifies the sheet stacker, where offset stacking takes place.

TRAIN=
Specifies the print train or band required to print this SYSOUT class.

name
Specifies the name of the print train or band. This parameter specification overrides the TRAIN parameters specified on the OUTSERV or DEVICE statements.

STANDARD
Specifies that the value specified on the OUTSERV statement is to be used.

THRESHLD=
Specifies the default maximum size for a SYSOUT data set. The THRESHLD parameter assumes that the data set size is the number of records in the data set multiplied by the number of copies. Data sets that equal or exceed the value specified are queued as separate pieces of work for output service writers. Specifying STANDARD causes the value specified on the OUTSERV statement to be used.

The THRESHLD parameter on the SYSOUT statement overrides the THRESHLD parameter on the OUTSERV statement.

TRKGRPS=
Specifies the number of track groups (as defined by the GRPSZ parameter on the BUFFER or SPART statement) JES3 is to allocate to jobs within this SYSOUT class. For guidelines on how to determine the appropriate value for the TRKGRPS parameter for your installation, see "Determining Track Group Allocation Sizes" in *z/OS JES3 Initialization and Tuning Guide*.

prigrps
Specifies the number of track groups to be initially allocated to jobs in this SYSOUT class. The specified value may be 1 through 9.

secgrps
Specifies the number of track groups to be allocated to jobs in this SYSOUT class subsequent to their primary allocation. JES3 allocates the specified amount of spool space after the job uses up its initial allocation, and again (for an unlimited number of times) when the job uses up each secondary allocation and requests more spool space. The specified value may be 1 through 9. If you specify this parameter, you must also specify the TYPE=DSISO parameter.

If you specify an invalid subparameter, JES3 uses the parameter default.

TRUNC=
Specifies whether trailing blanks are to be truncated from SYSOUT data belonging to this SYSOUT class.

YES
Indicates that trailing blanks are to be truncated from SYSOUT data.

NO Indicates that trailing blanks are not to be truncated from SYSOUT data.

Parameter Default: The default is the value specified on the TRUNC parameter of the BUFFER statement. If the TRUNC parameter is omitted from the BUFFER statement, the default for both parameters is TRUNC=YES.

TYPE=
Specifies the action JES3 takes after a data set in this SYSOUT class is processed. Multiple subparameters must be specified for type DSISO and RSVD data sets if PRINT, PUNCH, or TSO type characteristics are also

required. For example, TYPE=(PRINT,DSISO) causes the data set to be printed, but TYPE=DSISO never prints. Omission of the output type subparameter results in the data set becoming lost to output service.

USER1
Specifies that no action is to be taken by JES3 for this class. It is a user responsibility to process data sets in this SYSOUT class.

USER2
Specifies that no action is to be taken by JES3 for this class. It is a user responsibility to process data sets in this SYSOUT class.

DSISO
Specifies that each data set in this class is to have its own track allocation table (TAT). This increases spool utilization because each data set can be purged when the data set processing is complete instead of when the job completes. (Note that the subparameter has no relationship to any other TYPE specification.)

This parameter does not apply to the JESMSGLG, JESJCL, or JESYSMSG data sets. If you specify the SPART or TRKGRPS parameter on this statement, you must also specify the DSISO parameter.

RSVD
Specifies that this is a reserved SYSOUT class. Reserved classes may be used to hold SYSOUT output for TSO. A SYSOUT data set assigned to a reserved class is held for TSO if the MSGCLASS parameter specified for the generating job is also a reserved class.

PUNCH
Specifies that data sets in this SYSOUT class are to be punched.

PRINT
Specifies that data sets in this SYSOUT class are to be printed.

COMPACT=
Specifies the 1- to 8-character name of a compaction table defined to JES3 by the COMPACT initialization statement. Any data set in this SYSOUT class which is sent to a SNA work station (which supports compaction) is compacted using this compaction table instead of the work station default compaction table.

If you omit this parameter, the default compaction table or default compaction table for the work station is used.

CHNSIZE=
Specifies the size of the RU chain to be transmitted to SNA work stations.

DS Specifies that the entire data set is to be sent as a single chain.

nnn
Specifies the number of pages that the chain is to contain. Control characters in the data (skip to channel 1 for printers or eject for punches) delimit the page size. The value for nnn can be any number from 1-255.

(nnn,mmm)
Specifies the number of pages (nnn) in the chain and the number of logical records (mmm) in each page. This form of the subparameter allows you to transmit, as a multiple chain, a data set that contains no control characters.

The value for nnn and for mmm can be any number from 1-255.

Note:

1. If CHNSIZE=DS is specified no output checkpoints will be taken.
2. If you specify nnn or (nnn,mmm), JES3 takes an output checkpoint before each chain is transmitted.
3. CHNSIZE specified on a //*FORMAT statement overrides this specification. CHNSIZE specified on this statement overrides CHNSIZE specified on a DEVICE statement.
4. CHNSIZE=DS gives the best performance, but error conditions detected cannot result in a restart from the last checkpoint since checkpoints are not taken.

OUTDISP=
Specifies the initial output disposition to be assigned when this SYSOUT class is used. The first value specifies the normal output disposition to be used when the job does not abend. The second value specifies the abnormal output disposition to be used if the job abends. The valid output dispositions are:

HOLD
Specifies hold the output. JES3 does not process the output until you either change the disposition to WRITE or KEEP, or release the output. When the output is released, the disposition changes to WRITE.

KEEP
Specifies process the output and then keep a copy of it on spool. After processing, the disposition of this output becomes LEAVE.

LEAVE
Specifies that JES3 does not process the output until you change the disposition to either WRITE or KEEP, or release the output. When the output is released, the disposition changes to KEEP.

PURGE
Specifies purge the output immediately.

WRITE
Specifies process the output then purge it.

If only the normal output disposition value is specified, then the abnormal output disposition is assigned the same value.

If only the abnormal output disposition value is specified, then the normal output disposition is assigned a value of WRITE.

If OUTDISP is specified along with HOLD=3540, then OUTDISP is ignored as it does not apply to 3540 external writers.

If OUTDISP is specified along with HOLD=TSO, then HOLD=TSO is ignored.

TRACK (Preformatted Spool Data Set)

Use the TRACK initialization statement to replace a corresponding FORMAT statement in an initialization stream after the spool data set specified by the FORMAT statement has been formatted. The TRACK statement indicates that the corresponding data set has been formatted.

Statement summary

Table 68. TRACK Summary

Variable	Value
Required/Optional Statement	Required

Table 68. TRACK Summary (continued)

Variable	Value
Statement Default	None
Placement in Initialization Stream	This statement must precede the ENDJSAM statement.
Coding Considerations	1. The maximum number of TRACK statements is 1024. 2. The TRACK statement should replace the FORMAT statement after each spool data set has been formatted. The SPART parameter specification on the TRACK statement must match the NAME parameter on a SPART statement.
Security Usage	None
Performance Considerations	None
Initialization Stream Overrides	None
Restart or Command Modification	Cold start, warm start, or hot start with refresh for all parameters. When warm starting JES3, if the STT or STTL parameter was specified on a FORMAT statement that is being replaced by a track statement. The STT or STTL parameter must also be specified on the TRACK statement. You can also use a warm start to replace FORMAT statements with TRACK statements if the corresponding spool data set is already formatted. *MODIFY CONFIG can be used to add, remove or modify TRACK statements.

Syntax

```
►►──TRACK──,DDNAME=ddname────────────────────────────────────────────►
                           └─,SPART=partitionname─┘

►──┬──────────────────────┬──────────────────────────────────────────►◄
   ├─,STT=(cylnum,cylnum)──────┤
   └─,STTL=(cylnum,numtrkgps)─┘
```
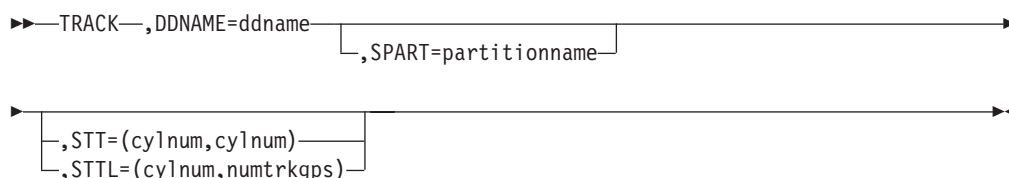
Parameters

DDNAME=
Specifies the name (1 to 8 characters) of the DD statement that defines the spool data set. Once a spool data set is defined, it must be referred to by the same ddname.

SPART=
Specifies that the spool data set identified by this statement is a member of the named spool partition. The partition name must match a partition name specified on a SPART statement.

To specify that the data set is a member of the default partition, omit this parameter. You must assign at least one spool data set as a member of the

default spool partition, or you must allow at least one spool data set to become a member by default. If you fail to do this, JES3 terminates its processing during initialization.

STT=

Specifies the range of cylinders to be allocated to the single track table (STT). This range must be within the extent allocated to the data set. The value of *cylnum* specifies an absolute cylinder number. (Absolute cylinder numbers are device-dependent; the component description for the device describes the numbering scheme.)

The range indicated by *(cylnum,cylnum)* can be one cylinder (for example: 24,24) or several cylinders (for example: 24,28) and can be in ascending or descending order. JES3 allocates to the STT only those track groups that fall completely within the indicated range of cylinders. The value for *cylnum* cannot be 0.

For fixed head devices, allocate cylinders under the fixed heads for better performance. For other devices, allocate cylinders in the center of the data set.

You should consider spool recovery and I/O balance before specifying the STT or STTL parameter. The presence of a single track table on a spool extent can limit the recovery actions that can be taken for that spool extent. To ensure successful recovery in the event of a problem, you should dedicate a spool extent to the STT or specify the STT on the minimum number of spool extents to achieve your I/O balance requirements.

If you omit either the STT or STTL parameter, or you specify an invalid range, JES3 allocates the centermost 2 track groups of each spool data set in the default partition as the initial STT allocation.

Note: If you change this parameter and want the change to go into effect for existing spool data sets, you must perform a cold start.

STTL=

Specifies the location and number of track groups to allocate to the single track table (STT). These track groups must be within the extent allocated to the data set. The value for *cylnum* specifies an absolute cylinder number indicating the beginning cylinder number of the STT allocation in this extent. (Absolute cylinder numbers are device-dependent; the component description for the device describes the numbering scheme.) The value for *numtrkgps* specifies the number of track groups to allocate to this extent, beginning with the first track group that is located completely in cylinder *cylnum*. The maximum number of track groups that may be allocated to the STT is 9999.

For fixed head devices, allocate cylinders under the fixed heads for better performance. For other devices, allocate cylinders in the center of the data set.

You should consider spool recovery and I/O balance before specifying the STT or STTL parameter. The presence of a single track table on a spool extent can limit the recovery actions that can be taken for that spool extent. To ensure successful recovery in the event of a problem, you should dedicate a spool extent to the STT or specify the STT on the minimum number of spool extents to achieve your I/O balance requirements.

If you omit either the STT or STTL parameter, or you specify an invalid range, JES3 allocates the centermost 2 track groups of each spool data set in the default partition as the initial STT allocation.

> **Note:** If you change this parameter and want the change to go into effect for existing spool data sets, you must perform a cold start.

Example

The following example shows how two spool data sets are specified on TRACK statements and on DD statements in the JES3 procedure.

Track statements:

```
TRACK,DDNAME=SPOOL1
TRACK,DDNAME=SPOOL2
```

Associated DD statements in the JES3 procedure:

```
//SPOOL1 DD DSN=JES3.QUES1,DISP=OLD,UNIT=3330,
VOL=SER=MVSRW1
//SPOOL2 DD DSN=JES3.QUES2,DISP=OLD,UNIT=3330,
VOL=SER=MVSRW2
```

Appendix A. Work Selection for JES3

This table summarizes the ways you specify work selection in JES3. The table assumes that you have established intital WS= settings using the JES3 initialization statements, OUTSERV and DEVICE. The table illustrates the ways you can code JCL to obtain the work selection you want.

JES3 Work Selection Processing Summary

Table 69. JES3 Work Selection Processing Summary

WS=	Meaning	JCL Source Examples

C	Carriage tape or FCB (printers only)	• DD Statement
		
		`//DD1     DD UNIT=3211,FCB=(IMG1,VERIFY)`
		`//DD2     DD SYSOUT=A,FCB=IMG2`
		`//DD3     DD UNIT=3211,FCB=(6,ALIGN)`
		
		• OUTPUT Statement
		
		`//OUTDS1 OUTPUT FCB=AA33`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,FCB=IMG1`
		`//DDX     DD SYSOUT=A`

CL	SYSOUT Class	• DD Statement
		
		`//DDX     DD SYSOUT=A`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT CLASS=D`
		`//OUT1    DD     SYSOUT=(,),OUTPUT=*.OUTDS6`

CM	Copy Modification (3800 Printer Only)	• DD Statement
		
		`//DDX     DD UNIT=3800,MODIFY=(MYMOD,0),CHARS=(GS15,GS10)`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT CHARS=(GT12,GB12,GI12),MODIFY=(MYMOD,2)`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,MODIFY=(MYMOD,2)`
		`//DDX     DD SYSOUT=T`

D	Data Set Destination	• DD Statement
		
		`//ANKARA  DD SYSOUT=K,DEST=RMT333`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT DEST=R444`
		`//OUT1    DD     SYSOUT=(,),OUTPUT=*.OUTDS6`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,DEST=ROME`
		`//DDX     DD SYSOUT=T`

Table 69. JES3 Work Selection Processing Summary (continued)

WS=	Meaning	JCL Source Examples

F	Forms Requested	• DD Statement
		
		`//SYSPRINT  DD SYSOUT=(K,,4PRT)`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT FORMS=ACCT4010`
		`//OUT1   DD    SYSOUT=(,),OUTPUT=*.OUTDS6`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,FORMS=ACCT4010`

FL	Flash (3800 Printer Only)	• DD Statement
		
		`//SYSPRINT  DD SYSOUT=K,COPIES=10,FLASH=(ABCD,5)`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT FORMS=ACCT4010,FLASH=STANDARD`
		`//OUT1   DD    SYSOUT=(,),OUTPUT=*.OUTDS6`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,FORMS=ACCT4010,FLASH=STANDARD`

L	Limit Scheduling (line, page or record)	Not Applicable

SS	Stacker (3800 Printer Only)	• DD Statement
		
		`//SYSPRINT  DD SYSOUT=K,BURST=Y`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT BURST=Y`
		`//OUT1   DD    SYSOUT=(,),OUTPUT=*.OUTDS6`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,FORMS=ACCT4010,STACKER=S`

P	Data Set Priority	• DD Statement derived from job's priority
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT PRTY=200`
		`//OUT1   DD    SYSOUT=(,),OUTPUT=*.OUTDS6`

PM	Processing Mode	• OUTPUT Statement
		
		`//OUTDS6 OUTPUT PRMODE=PAGE`
		`//OUT1   DD    SYSOUT=(,),OUTPUT=*.OUTDS6`

T	Specific Device Type Requested	The parameter is derived from the SYSOUT class definition (PRT, PUN, and so on). You can specified the specific device type on the OUT= parameter in calling some JES3 DSPs.

Table 69. JES3 Work Selection Processing Summary (continued)

WS=	Meaning	JCL Source Examples

U	Character arrangement table (CHARS) or Train image (UCS).	• DD Statement
		
		`//SYSPRINT  DD SYSOUT=K,UCS=PN`
		`or`
		`//SYSPRINT  DD SYSOUT=K,CHARS=GS14`
		
		• OUTPUT Statement
		
		`//OUTDS6 OUTPUT UCS=PN`
		`//OUT1    DD     SYSOUT=(,),OUTPUT=*.OUTDS6`
		`or`
		`//OUTDS6 OUTPUT CHARS=GS14`
		`//OUT1    DD     SYSOUT=(,),OUTPUT=*.OUTDS6`
		
		• //*FORMAT Statement
		
		`//*FORMAT PR,DDNAME=DDX,TRAIN=STANDARD`
		`or`
		`//*FORMAT PR,DDNAME=DDX,CHARS=GS14`

Appendix B. Accessibility

Accessible publications for this product are offered through IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter/SSLTBW/welcome).

If you experience difficulty with the accessibility of any z/OS information, send a detailed message to the "Contact us" web page for z/OS (http://www.ibm.com/systems/z/os/zos/webqs.html) or use the following mailing address.

IBM Corporation
Attention: MHVRCFS Reader Comments
Department H6MA, Building 707
2455 South Road
Poughkeepsie, NY 12601-5400
United States

Accessibility features

Accessibility features help users who have physical disabilities such as restricted mobility or limited vision use software products successfully. The accessibility features in z/OS can help users do the following tasks:

- Run assistive technology such as screen readers and screen magnifier software.
- Operate specific or equivalent features by using the keyboard.
- Customize display attributes such as color, contrast, and font size.

Consult assistive technologies

Assistive technology products such as screen readers function with the user interfaces found in z/OS. Consult the product information for the specific assistive technology product that is used to access z/OS interfaces.

Keyboard navigation of the user interface

You can access z/OS user interfaces with TSO/E or ISPF. The following information describes how to use TSO/E and ISPF, including the use of keyboard shortcuts and function keys (PF keys). Each guide includes the default settings for the PF keys.

- *z/OS TSO/E Primer*
- *z/OS TSO/E User's Guide*
- *z/OS V2R2 ISPF User's Guide Vol I*

Dotted decimal syntax diagrams

Syntax diagrams are provided in dotted decimal format for users who access IBM Knowledge Center with a screen reader. In dotted decimal format, each syntax element is written on a separate line. If two or more syntax elements are always present together (or always absent together), they can appear on the same line because they are considered a single compound syntax element.

Each line starts with a dotted decimal number; for example, 3 or 3.1 or 3.1.1. To hear these numbers correctly, make sure that the screen reader is set to read out

punctuation. All the syntax elements that have the same dotted decimal number (for example, all the syntax elements that have the number 3.1) are mutually exclusive alternatives. If you hear the lines 3.1 USERID and 3.1 SYSTEMID, your syntax can include either USERID or SYSTEMID, but not both.

The dotted decimal numbering level denotes the level of nesting. For example, if a syntax element with dotted decimal number 3 is followed by a series of syntax elements with dotted decimal number 3.1, all the syntax elements numbered 3.1 are subordinate to the syntax element numbered 3.

Certain words and symbols are used next to the dotted decimal numbers to add information about the syntax elements. Occasionally, these words and symbols might occur at the beginning of the element itself. For ease of identification, if the word or symbol is a part of the syntax element, it is preceded by the backslash (\) character. The * symbol is placed next to a dotted decimal number to indicate that the syntax element repeats. For example, syntax element *FILE with dotted decimal number 3 is given the format 3 * FILE. Format 3* FILE indicates that syntax element FILE repeats. Format 3* * FILE indicates that syntax element * FILE repeats.

Characters such as commas, which are used to separate a string of syntax elements, are shown in the syntax just before the items they separate. These characters can appear on the same line as each item, or on a separate line with the same dotted decimal number as the relevant items. The line can also show another symbol to provide information about the syntax elements. For example, the lines 5.1*, 5.1 LASTRUN, and 5.1 DELETE mean that if you use more than one of the LASTRUN and DELETE syntax elements, the elements must be separated by a comma. If no separator is given, assume that you use a blank to separate each syntax element.

If a syntax element is preceded by the % symbol, it indicates a reference that is defined elsewhere. The string that follows the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you must refer to separate syntax fragment OP1.

The following symbols are used next to the dotted decimal numbers.

? indicates an optional syntax element
    The question mark (?) symbol indicates an optional syntax element. A dotted decimal number followed by the question mark symbol (?) indicates that all the syntax elements with a corresponding dotted decimal number, and any subordinate syntax elements, are optional. If there is only one syntax element with a dotted decimal number, the ? symbol is displayed on the same line as the syntax element, (for example 5? NOTIFY). If there is more than one syntax element with a dotted decimal number, the ? symbol is displayed on a line by itself, followed by the syntax elements that are optional. For example, if you hear the lines 5 ?, 5 NOTIFY, and 5 UPDATE, you know that the syntax elements NOTIFY and UPDATE are optional. That is, you can choose one or none of them. The ? symbol is equivalent to a bypass line in a railroad diagram.

! indicates a default syntax element
    The exclamation mark (!) symbol indicates a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicate that the syntax element is the default option for all syntax elements that share the same dotted decimal number. Only one of the syntax elements that share the dotted decimal number can specify the ! symbol. For example, if you hear the lines 2? FILE, 2.1! (KEEP), and 2.1 (DELETE), you know that (KEEP) is the

default option for the FILE keyword. In the example, if you include the FILE keyword, but do not specify an option, the default option KEEP is applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, the default FILE(KEEP) is used. However, if you hear the lines 2? FILE, 2.1, 2.1.1! (KEEP), and 2.1.1 (DELETE), the default option KEEP applies only to the next higher dotted decimal number, 2.1 (which does not have an associated keyword), and does not apply to 2? FILE. Nothing is used if the keyword FILE is omitted.

* indicates an optional syntax element that is repeatable
The asterisk or glyph (*) symbol indicates a syntax element that can be repeated zero or more times. A dotted decimal number followed by the * symbol indicates that this syntax element can be used zero or more times; that is, it is optional and can be repeated. For example, if you hear the line 5.1* data area, you know that you can include one data area, more than one data area, or no data area. If you hear the lines 3* , 3 HOST, 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

Notes:

1. If a dotted decimal number has an asterisk (*) next to it and there is only one item with that dotted decimal number, you can repeat that same item more than once.

2. If a dotted decimal number has an asterisk next to it and several items have that dotted decimal number, you can use more than one item from the list, but you cannot use the items more than once each. In the previous example, you can write HOST STATE, but you cannot write HOST HOST.

3. The * symbol is equivalent to a loopback line in a railroad syntax diagram.

+ indicates a syntax element that must be included
The plus (+) symbol indicates a syntax element that must be included at least once. A dotted decimal number followed by the + symbol indicates that the syntax element must be included one or more times. That is, it must be included at least once and can be repeated. For example, if you hear the line 6.1+ data area, you must include at least one data area. If you hear the lines 2+, 2 HOST, and 2 STATE, you know that you must include HOST, STATE, or both. Similar to the * symbol, the + symbol can repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the * symbol, is equivalent to a loopback line in a railroad syntax diagram.

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for service, and current service activity will cease if a problem is determined to be associated with out-of-support devices. In such cases, fixes will not be issued.

Minimum supported hardware

The minimum supported hardware for z/OS releases identified in z/OS announcements can subsequently change when service for particular servers or devices is withdrawn. Likewise, the levels of other software products supported on a particular release of z/OS are subject to the service support lifecycle of those products. Therefore, z/OS and its product publications (for example, panels, samples, messages, and product documentation) can include references to hardware and software that is no longer supported.

- For information about software support lifecycle, see: IBM Lifecycle Support for z/OS (http://www.ibm.com/software/support/systemsz/lifecycle/)
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