

z/OS
Bulk Data Transfer



Commands

z/OS
Bulk Data Transfer



Commands

Note

Before using this information and the product it supports, be sure to read the general information under "Appendix. Notices" on page 87.

First Edition (March 2001)

This edition applies to Version 1 Release 1 of z/OS (5694-A01) and to all subsequent releases and modifications until otherwise indicated in new editions.

Order publications through your IBM representative or the IBM branch office serving your locality. Publications are not stocked at the address below.

IBM welcomes your comments. A form for readers' comments may be provided at the back of this publication, or you may address your comments to the following address:

International Business Machines Corporation
Department 55JA, Mail Station P384
2455 South Road
Poughkeepsie, NY 12601-5400
United States of America

FAX (United States & Canada): 845+432-9405

FAX (Other Countries):

Your International Access Code +1+845+432-9405

IBMLink (United States customers only): IBMUSM10(MHVRCFS)

Internet e-mail: mhvrcfs@us.ibm.com

World Wide Web: <http://www.ibm.com/servers/eserver/zseries/zos/webqs.html>

If you would like a reply, be sure to include your name, address, telephone number, or FAX number.

Make sure to include the following in your comment or note:

- Title and order number of this book
- Page number or topic related to your comment

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

© Copyright International Business Machines Corporation 1986, 2001. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Figures	xi
About This Book	xiii
Who Should Read This Book	xiii
How to Use This Book	xiii
Related Reading	xiii
z/OS BDT Publications	xiv
Using LookAt to look up message explanations	xiv
Accessing licensed books on the Web	xv
Chapter 1. Writing and Submitting BDT Commands	1
Command Types	1
Format of BDT Commands	1
BDT Command Prefix	2
How to Submit Commands	3
Submitting Commands Interactively	3
Submitting Commands in a Batch Job	3
How BDT Processes Commands	3
Chapter 2. Command Guide	5
Starting the Transaction Queuing Integrity (TQI) Facility	5
Starting BDT	5
Step 1. Make Sure That the System Is Ready	5
Step 2. Invoke Your BDT Start Procedure	5
Step 3. Vary JES3 Online (For Hot Starts on JES3 Systems Only)	6
When to Use a Cold, Warm, or Hot Start	6
Summary of Start Types	7
Starting a BDT Session	7
Activating the BDT SNA Manager	7
Starting the Session	8
Stopping a BDT Session	8
Determining If a Session Is Working	8
Determining If Data Is Moving between Your Node and Another Node	9
Determining If Data Is Moving on a Particular Job	9
Canceling, Holding, or Rescheduling a Job	10
If You Don't Know the Job Number	10
Canceling a Job That Is on the Work Queue at Your BDT Subsystem	10
Holding a Job That Is on the Work Queue at Your BDT Subsystem	10
Rescheduling an Active Job That Is on the Work Queue at Your BDT Subsystem	10
Canceling, Holding, or Rescheduling a Job That Is on the Work Queue at Another Node	11
Displaying Information About Jobs	11
If You Know the Job Name or Job Number	11
If You Know Part of the Job Name	12
If You Don't Know the Job Name or Job Number	12
If a File-to-File Job Is on the Work Queue at Another Node	12
Handling Problems in DTC Networks	12
Runaway First Job in a DTC Network	13
Releasing a Job from DTC Network Hold	13
Jobs Are Rejected When a DTC Network Is Submitted	14
Managing the BDT System Log	14
Changing the Destination of the BDT System Log	14

Printing the BDT System Log	15
Chapter 3. Command Reference	17
C,SNA — Cancel a Session	17
Purpose	17
Format	17
Usage Notes.	18
Results.	18
Examples	18
DUMP — Dump the BDT Address Space	19
Purpose	19
Format	19
Usage Notes.	20
Results.	20
Example	20
F,DUMP — Change the Dump Option	20
Purpose	20
Format	20
Usage Note	21
Results.	21
Examples	21
F,J,C — Cancel a Job	21
Purpose	21
Format	21
Usage Notes.	22
Results.	22
Examples	22
F,J,H or R — Hold or Release a Job	23
Purpose	23
Format	23
Usage Notes.	23
Result	24
Examples	24
F,J,P — Change a Job's Priority	24
Purpose	24
Format	24
Usage Notes.	24
Result	25
Example	25
F,JES3 — Suspend or Resume NJE Communication from JES3 to BDT (SNA NJE Feature Only).	25
Purpose	25
Format	25
Usage Note	25
Results.	25
Examples	26
F,LOG,ADEST or DDEST — Specify the Destination of the BDT System Log	26
Purpose	26
Format	26
Usage Note	27
Results.	27
Examples	27
F,LOG,SYSLOG — Change the BDT System Log Destination	28
Purpose	28
Format	28
Usage Notes.	28

I
I
I
I

Results	28
Examples	28
F,LOG,MSGPROP — Change the BDT Message Propagation Option Status	29
Purpose	29
Format	29
Usage Note	29
F,LOG,WRITE — Print the BDT System Log	29
Purpose	29
Format	30
Usage Note	30
Result	30
Example	30
F,MSG,E or D — Enable or Disable the TQI Message Handler	30
Purpose	30
Format	30
Usage Notes.	31
Results.	31
Examples	31
F,MSG,STATUS — Display the Status of the TQI Message Handler	32
Purpose	32
Format	32
Usage Notes.	32
Result	33
Example	33
F,NET,ID,J,C — Cancel a Job in a DTC Network	33
Purpose	33
Format	33
Usage Notes.	33
Result	34
Example	34
F,NET,ID,J,I or D — Change the Hold Count of a Job in a DTC Network.	34
Purpose	34
Format	34
Usage Notes.	34
Results.	35
Examples	35
F,NET,ID,J,F — Cancel a DTC Network	35
Purpose	35
Format	35
Usage Notes.	35
Results.	36
Example	36
F,NET,ID,J,R — Release a Job from DTC Network Hold.	37
Purpose	37
Format	37
Usage Notes.	37
Results.	37
Example	37
F,NODE,FENCE — Control VLU Fencing (File-to-File Feature Only)	38
Purpose	38
Format	38
Usage Notes.	38
Results.	38
Examples	39
F,TQI,E or D — Enable or Disable TQI	39
Purpose	39

Format	39
Usage Notes.	40
Results.	40
Examples	41
F,TQI,STATUS — Display the Status of the TQI Address Space	41
Purpose	41
Format	41
Usage Notes.	41
Result	42
Example	42
I,A — Display the Status of Active Jobs	42
Purpose	42
Format	42
Usage Note	42
Results.	43
Examples	43
I,A,TCB — Display the Status of Active BDT Tasks	44
Purpose	44
Format	44
Results.	44
Example	44
I,B — Display Backlog of Jobs	45
Purpose	45
Format	45
Usage Notes.	45
Results.	46
Examples	47
I,C — Display the Status of Cell Pools and SNA Buffer Pools	48
Purpose	48
Format	48
Result	48
Examples	48
I,DSN — Display Data Set Status	49
Purpose	49
Format	49
Usage Notes.	49
Result	50
Examples	50
I,J — Display the Status of a Job on the BDT Work Queue	50
Purpose	50
Format	51
Usage Note	51
Results.	51
Examples	52
I,L — Display Session Status	53
Purpose	53
Format	53
Usage Note	53
Results.	53
Examples	54
I,LOG — Display the BDT System Log Destination.	54
Purpose	54
Format	54
Result	54
Example	54
I,NET — Display DTC Networks	54

Purpose	54
Format	55
Result	55
Example	55
I,NET,ID — Display the Status of Jobs in a DTC Network	55
Purpose	55
Format	55
Usage Note	56
Result	56
Examples	56
I,NODE — Display the Status of Nodes	57
Purpose	57
Format	57
Results	58
Examples	58
I,OPT — Display System Status	58
Purpose	58
Format	59
Results	59
Example	59
I,P — Display the Status of Jobs by Priority	59
Purpose	59
Format	59
Usage Note	60
Result	60
Examples	60
I,Q — Display the BDT Work Queue	60
Purpose	60
Format	61
Usage Notes	61
Results	61
Examples	62
I,QS — Display BDT Work Queue Information	63
Purpose	63
Format	63
Result	63
Example	63
I,R — Display Operator-Action Messages	64
Purpose	64
Format	64
Result	64
Example	64
I,X,FCT — Display Statistics for BDT Modules by FCT Name	64
Purpose	64
Format	64
Result	65
Examples	65
I,X,M — Display Statistics for BDT Modules by Module Name	65
Purpose	65
Format	65
Result	66
Example	66
JES — Submit a JES3 Command from BDT	66
Purpose	66
Format	66
Usage Notes	66

Result	66
Example	67
R,SNA,NODE — Restart a Session	67
Purpose	67
Format	67
Usage Note	67
Results	67
Example	68
RETURN — Terminate BDT	68
Purpose	68
Format	68
Usage Notes	68
Results	68
Example	69
S,SNA,LIMIT — Change the Concurrent Session Limit	69
Purpose	69
Format	69
Usage Note	69
Results	69
Example	69
S,SNA,LOG=? — Display the Destination of the SNA Manager Log	70
Purpose	70
Format	70
Usage Notes	70
Result	70
Example	70
S,SNA,LOG — Change the Destination of the SNA Manager Log (File-to-File Feature Only)	70
Purpose	70
Format	70
Usage Notes	71
Result	71
Example	71
S,SNA,NODE — Start a Session	71
Purpose	71
Format	72
Usage Notes	72
Results	72
Examples	73
S,SNA,STATUS,LIST — Display the Status of the SNA Manager	73
Purpose	73
Format	73
Usage Notes	74
Results	74
Examples	74
S,TQI,DELAY — Change the Read Checkpoint Interval	75
Purpose	75
Format	75
Result	75
Example	75
S,TQI,SUSPEND, or RESTART — Control BDT's Access to the TQI Checkpoint	
Data Set	75
Purpose	75
Format	76
Usage Notes	76
Results	77

Examples	77
T — Send a Command to Another BDT Node (Requires File-to-File Feature)	78
Purpose	78
Format	78
Usage Notes.	78
Result	78
Example	78
V — Control a Session Using VLU	79
Purpose	79
Format	79
Usage Notes.	80
Results.	80
Examples	81
V,JES3 — Control the JES3 to BDT Interface	82
Purpose	82
Format	83
Usage Notes.	83
Result	83
Examples	83
X,SNA — Activate the BDT SNA Manager	83
Purpose	83
Format	84
Usage Notes.	84
Result	84
Example	84
Z — Send Messages to Other Consoles or Users (File-to-File Feature Only)	85
Purpose	85
Format	85
Usage Notes.	85
Result	85
Examples	86
Appendix. Notices	87
Trademarks	88
Glossary	89
Index	91

Figures

1. Sample Syntax Diagram for an BDT Command	2
2. Canceling a DTC Network	36

About This Book

This book is a reference guide to the commands of the Bulk Data Transfer (BDT) licensed program. It describes all of the BDT commands.

Who Should Read This Book

This book is for:

- System programmers, who need to establish and maintain BDT sessions
- System operators, who need to operate BDT
- End users, who need to display information about their jobs.

How to Use This Book

If you are unfamiliar with BDT commands, begin with Chapter 1. Writing and Submitting BDT Commands.

This book contains three chapters and a glossary.

- Chapter 1, “Writing and Submitting BDT Commands,” is an introduction to BDT commands. It explains the types of BDT commands and how to write and submit BDT commands.
- Chapter 2, “Command Guide,” presents some common operator tasks and explains how to use BDT commands to perform them.
- Chapter 3, “Command Reference,” describes all of the BDT commands. The commands are listed alphabetically by abbreviated command name. For example, MODIFY commands, which are abbreviated as F commands, are listed before INQUIRY, or I commands.

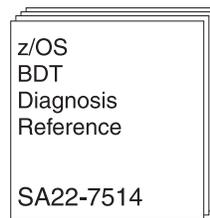
Related Reading

Where necessary, this book references information in other books, using shortened versions of the book title. For complete titles and order numbers of the books for all products that are part of z/OS, see *z/OS Information Roadmap*.

z/OS BDT Publications



Introduces BDT.



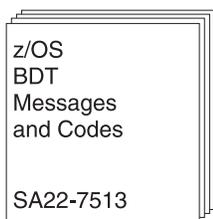
This book explains how to request and read a BDT formatted dump, explains how to find and read BDT information in an MVS SVS dump, and shows the layouts of BDT data areas.



Explains how to create and submit transactions to copy data sets.



Explains how to define BDT to MVS and ACF/VTAM, allocate BDT and TQI data sets, write BDT initialization statements, write BDT and TQI start procedures, and write BDT user exit routines.



Explains all BDT messages and completion codes.



Describes all BDT commands.

Using LookAt to look up message explanations

LookAt is an online facility that allows you to look up explanations for z/OS messages and system abends.

Using LookAt to find information is faster than a conventional search because LookAt goes directly to the explanation.

LookAt can be accessed from the Internet or from a TSO command line.

You can use LookAt on the Internet at:

<http://www.ibm.com/servers/eserver/zseries/zos/bkserv/lookat/lookat.html>

To use LookAt as a TSO command, LookAt must be installed on your host system. You can obtain the LookAt code for TSO from the LookAt Web site by clicking on **News and Help** or from the *z/OS Collection*, SK3T-4269.

To find a message explanation from a TSO command line, simply enter: **lookat** *message-id* as in the following example:

```
lookat iec192i
```

This results in direct access to the message explanation for message IEC192I.

To find a message explanation from the LookAt Web site, simply enter the message ID. You can select the release if needed.

Note: Some messages have information in more than one book. For example, IEC192I has routing and descriptor codes listed in *z/OS MVS Routing and Descriptor Codes*. For such messages, LookAt prompts you to choose which book to open.

Accessing licensed books on the Web

z/OS licensed documentation in PDF format is available on the Internet at the IBM Resource Link Web site at:

<http://www.ibm.com/servers/resourceLink>

Licensed books are available only to customers with a z/OS license. Access to these books requires an IBM Resource Link Web userid and password, and a key code. With your z/OS order you received a memo that includes this key code.

To obtain your IBM Resource Link Web userid and password log on to:

<http://www.ibm.com/servers/resourceLink>

To register for access to the z/OS licensed books:

1. Log on to Resource Link using your Resource Link userid and password.
2. Click on **User Profiles** located on the left-hand navigation bar.
3. Click on **Access Profile**.
4. Click on **Request Access to Licensed books**.
5. Supply your key code where requested and click on the **Submit** button.

If you supplied the correct key code you will receive confirmation that your request is being processed. After your request is processed you will receive an e-mail confirmation.

Note: You cannot access the z/OS licensed books unless you have registered for access to them and received an e-mail confirmation informing you that your request has been processed.

To access the licensed books:

1. Log on to Resource Link using your Resource Link userid and password.
2. Click on **Library**.
3. Click on **zSeries**.
4. Click on **Software**.
5. Click on **z/OS**.
6. Access the licensed book by selecting the appropriate element.

Chapter 1. Writing and Submitting BDT Commands

BDT commands allow you and the BDT subsystem to communicate with each other through your console. You use commands to ask the BDT subsystem for information. You also use commands to control the BDT subsystem, its resources, its connection to other nodes in the BDT network, and the jobs it is processing. In response to your commands, BDT sends messages to you about events in the system.

This chapter is an introduction to writing and submitting BDT commands. It explains:

- What the command types are
- What the format of a BDT command is
- How to use the command syntax diagrams
- How to submit commands
- How BDT processes commands.

Command Types

These are the basic BDT commands and their functions:

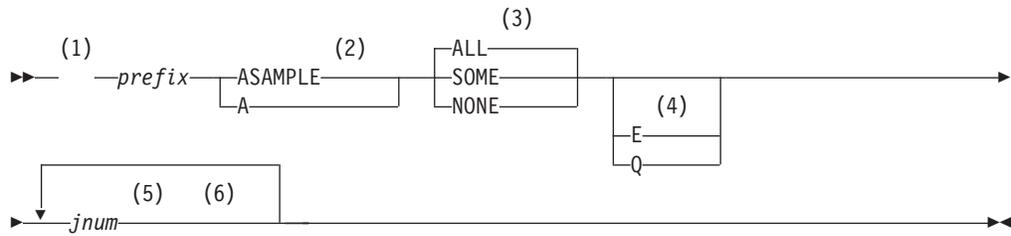
- **INQUIRY (I)** commands request information about jobs or the BDT subsystem.
- **MODIFY (F)** commands change parameters or values given during initialization or in previous commands.
- **CALL (X), START (S), RESTART (R),** and **CANCEL (C)** commands control the SNA manager. They start and stop sessions between nodes.
- **VARY (V)** commands control BDT resources such as virtual logical units (VLUs).
- The **MESSAGE (Z)** command allows you to communicate with any TSO, JES3, or multiple console support (MCS) console anywhere in the BDT network.
- The **SEND (T)** command routes commands to other BDT systems.
- The **JES** command sends JES3 commands from one JES3 system to another JES3 system in the same complex.
- The **DUMP** command dumps the BDT address space.
- The **RETURN** command terminates BDT.

The **MODIFY,NODE,FENCE** command, the **START,SNA,LOG** command, the **SEND** command, and the **MESSAGE** command are for the File-to-File feature only. The **MODIFY,JES3** command is for the SNA NJE feature only. All other commands can be used with both features.

Format of BDT Commands

This book describes each BDT command with a syntax diagram. The syntax diagram shows the parts and punctuation of the command. To construct a command from the diagram follow the diagram from left to right, choosing the path that suits your needs.

Figure 1 on page 2 shows a sample syntax diagram and explains how to use it to construct a command. This command is for illustration only. Do not attempt to enter it.



Notes:

- 1 Start here.
- 2 Choose either ASAMPLE or A.
- 3 Choose one of the options. The default is always above the main line. In this case, ALL is the default.
- 4 Choose E, Q, or neither.
- 5 Repeat *jnum* any number of times. Variables are always in italics.
- 6 End here.

Figure 1. Sample Syntax Diagram for an BDT Command

BDT Command Prefix

The prefix tells the system that the command is a BDT command. The prefix you use depends on the type of console you are using (MCS, JES3, or TSO), and whether your system programmer has created short-cuts (such as PF keys). For a listing of the IBM-defined prefixes, see Table 1.

Table 1. IBM-Defined Prefixes

Type of Console	Prefix in a Single-BDT Complex	Prefix in a Poly-BDT Complex
MCS	<i>bdt-char</i> or BDT or F [<i>bdt-proc.</i>] <i>bdt-id</i>	Same
JES3	*S,BDT	*S,BDT,SY(<i>node-name</i>)
TSO	BDT	BDT SY(<i>node-name</i>)

bdt-char is a special character (such as /) that routes the command directly to a specific system. Do not use a delimiter (a comma or a blank) after *bdt-char*. For information on defining *bdt-char*, see *z/OS BDT Installation*.

bdt-proc is the name of the cataloged procedure in SYS1.PROCLIB that is used to start BDT. It is optional.

bdt-id is the installation-defined identifier of BDT.

SY(*node-name*) is the system parameter that indicates to which BDT subsystem the command should go. Include the parentheses as shown.

Note: At an MCS console, the *bdt-char* prefix and the “BDT” prefix invoke BDT user exit routine BDTUX28. The “F” prefix does not.

Some valid specifications for a command using the TSO prefix are listed below.
BDT,S,NODE=FTF,Q,J=3431

```
BDT,SAMPLE,NODE=NODEC,J=(2871,3431,4982)
BDT,S,J=1542
```

How to Submit Commands

You can submit commands either interactively or in a batch job.

Submitting Commands Interactively

You can submit commands by typing them at your console, following the rules of command syntax.

Frequently used commands can be assigned to the program function keys (PF keys) on the console's keyboard. The PF keys can be set up to issue a command immediately when you press them, or to produce skeletal commands with blank spaces for you to fill in.

Submitting Commands in a Batch Job

You can submit commands in a batch job, using this format:

```
//job card
// EXEC PGM=BDTBATCH
//SYSPRINT DD DUMMY
//SYSIN DD *
command
/EOT
command
/EOT
```

If you use this method to submit commands:

- Do not use a prefix. Start with the command word.
- Begin the command in any column.
- When using more than one command, start each command on a new line and separate the commands with a /EOT statement.
- Do not use the line-end character — it is invalid.

How BDT Processes Commands

When you submit a command, TQI makes a copy of the command on the TQI checkpoint data set. BDT then reads the command from the data set. If you disable TQI, commands you submit go directly to BDT.

Note: When BDT is restarted, any commands on the TQI checkpoint data set are discarded. Because of this, when restarting BDT after a failure, do not issue BDT commands that initiate BDT activity or inquire about a job's status until you receive message BDT2225 indicating that TQI initialization is complete. Once you receive this message you may safely submit commands.

Chapter 2. Command Guide

This chapter describes how to use BDT commands to perform a few important tasks. It presents the commands that allow you to:

- Start the transaction queueing integrity (TQI) facility.
- Start BDT.
- Start a BDT session.
- Stop a BDT session.
- Determine if a session is working when it seems to be stuck.
- Find a job in the system.
- Cancel, hold, or reschedule a job that is on the BDT work queue.
- Handle problems in dependent transaction control (DTC) networks.
- Manage the BDT system log.

The commands are all shown with a prefix. Do not use a prefix when submitting commands in a batch job.

Starting the Transaction Queueing Integrity (TQI) Facility

TQI must be started on each processor from which users submit commands and file-to-file transactions in order for the commands and transactions to be checkpointed. TQI must also be started in order for users to receive BDT messages. TQI may be started in either of two ways:

- Automatically during initialization of the MVS base control program. To do this, include a START command for TQI in the COMMNDxx member of SYS1.PARMLIB.
- Manually by the operator. To do this, issue the MVS START command. Note that if some time later TQI restarts automatically, any user parameters that the operator may have included on the START command are lost.

Starting BDT

If you want to use the transaction queueing integrity (TQI) facility to allow you to receive BDT messages, you should begin by starting TQI. See Starting the Transaction Queueing Integrity (TQI) Facility.

Starting BDT requires the steps described below.

Step 1. Make Sure That the System Is Ready

Make sure:

- MVS is running.
- JES is running.
- The VTAM network is established.
- The console authorization level is 15.

Step 2. Invoke Your BDT Start Procedure

Use the MVS command

```
S bdt-proc
```

where *bdt-proc* is the name of your start procedure. You will be prompted by message BDT3036 to enter a start type (cold, warm, or hot), and by message BDT3037 (if a cold or warm start) to enter the name of the member that contains

the BDT start procedure. For information on when to use a cold, warm, or hot start, see “When to Use a Cold, Warm, or Hot Start”.

Note: If an error occurs while you are starting BDT, you may have to cancel BDT before you try to start it again.

Step 3. Vary JES3 Online (For Hot Starts on JES3 Systems Only)

This step is necessary only for JES3 systems doing a hot start. If you want users to be able to submit JES3 commands through BDT, you must vary JES3 online with the BDT command

```
prefix V,JES3,ONLINE
```

Note: Whenever you restart BDT, the fencing of VLUs for file-to-file nodes returns to the setup defined in the initialization stream.

If you want to change the fencing, use the BDT command

```
prefix F,NODE=node-name,FENCE=(from,to).
```

When to Use a Cold, Warm, or Hot Start

When to Use a Cold Start

A cold start is the most severe type of start. It disrupts processing more than the other types of start. For this reason you should use a hot or warm start whenever possible.

The only situations that require a cold start are:

- To start BDT for the first time in your installation
- After a failure that cannot be corrected by a hot or warm start
- To install new releases or enhancements that require a cold start.

Cold start processing reads the initialization stream. In many installations the initialization stream used for a cold start will be different from the one used on the previous start.

If there are any errors in the initialization stream BDT displays a message describing the error on the console or writes it to the BDTOUT data set. If the error is so severe that BDT would not be able to run properly, BDT will terminate in the initialization stage. If this happens, you must alert the system programmer so that the problem can be corrected before you attempt to start again.

During a cold start all BDT jobs (both active and inactive) are lost. These jobs must be resubmitted. Also, any changes that you made by issuing commands (such as MODIFY) are lost. TQI data sets are unaffected.

When to Use a Warm Start

A warm start is less severe than a cold start, but you should use a hot start if possible. A warm start is required for the following situations:

- After a failure that cannot be corrected by a hot start
- To make changes to the initialization stream and put the new initialization values into effect.

Warm start processing reads the initialization stream. Since it does so, a warm start can change the global-local relationship defined between nodes. If a warm start is to change the global-local relationship, you should make sure that the work queue

is empty before stopping and warm-starting BDT. Any errors found in the initialization stream will be treated as they are during a cold start.

Jobs that were active when BDT came down are interrupted. BDT will either restart these jobs or dispose of them according to their failure option. Jobs on the work queue are not affected unless the global-local relationship between nodes is redefined by the warm start. In this case the fate of jobs on the work queue is unpredictable.

All of the changes you made to jobs by issuing commands (such as MODIFY) will remain in effect.

When to Use a Hot Start

You can use a hot start to restart BDT:

- After a normal shutdown.
- After BDT terminates because of a failure of MVS or JES.
- To load a new copy of BDT code if there have been recursive abends (the same module and displacement appear in message BDT3713 for each failure). You must terminate BDT with the RETURN command before doing a hot start for this purpose.

Hot start processing does *not* read the initialization stream, so system limits remain as they were set by the previous initialization.

The jobs that were active when BDT came down should restart. Jobs on the work queue are not affected.

All of the changes you made to jobs by issuing commands (such as MODIFY) will remain in effect.

Summary of Start Types

The table below shows the different start types and their effects.

Start Type	Reads Initialization Stream	Saves Work Queue	Saves MODIFY Job Changes	Saves MODIFY System Changes
Cold	Yes	No	No	No
Warm	Yes	Yes	Yes	No
Hot	No	Yes	Yes	No

Starting a BDT Session

Your initialization stream may start sessions automatically. If it does not, you will have to issue BDT commands to start sessions.

Before starting sessions, you may need to activate the BDT SNA manager.

Activating the BDT SNA Manager

You must activate the BDT SNA manager if:

- You are doing a cold start of BDT
- You are doing a warm or hot start of BDT and the BDT SNA manager was not active when BDT terminated

- The BDT SNA manager has been canceled with a BDT C,SNA,NODE=ALL command.

If you aren't sure whether the BDT SNA manager is active or if any sessions have already been established, use

prefix S,SNA,STATUS,LIST

to display the status of the BDT SNA manager and a list of all active sessions.

Activate the BDT SNA manager with the BDT command

prefix X,SNA

Look for message BDT2801, SNA MANAGER READY.

Starting the Session

When the BDT SNA manager is active, use

prefix S,SNA,NODE=node-name

or

prefix R,SNA,NODE=node-name

to establish a session between a node at your BDT subsystem and another node. R,SNA,NODE also enables automatic session restart (ASR).

For R,SNA,NODE, message BDT2860 will tell you that a session is being started. For S,SNA,NODE, several messages, including BDT2860, will tell you a session is being started.

Stopping a BDT Session

To cancel a session between a node at your BDT subsystem and another node, you must know the name of the other node. If you aren't sure of the node name, first use

prefix I,L=ALL

to display the names of all nodes connected to your BDT subsystem by BDT sessions.

To stop a session between a node at your BDT subsystem and another node when active work completes, use

prefix C,SNA,NODE=node-name,QUIESCE

To stop a session between a node at your BDT subsystem and another node immediately, use

prefix C,SNA,NODE=node-name,FORCE

Several messages, including BDT2803, SESSION TERMINATED WITH node-name (appl-id), will be issued in response to the C,SNA command.

To restart a session canceled with the C,SNA command, use S,SNA,NODE=node-name or R,SNA,NODE=node-name. (See "Starting a BDT Session" on page 7.)

Determining If a Session Is Working

- To display a list of active sessions, use
prefix S,SNA,STATUS,LIST
- To display the status of all sessions, including sessions that are offline, and to display the status of VLU's for those sessions, use

prefix I,NODE=ALL

- If you are interested in one particular session, you can save time by using *prefix I,NODE=node-name* to display the status of the session with a particular node.

Determining If Data Is Moving between Your Node and Another Node

To determine if data is moving between the node or nodes at your BDT subsystem and another node use

prefix I,A,NODE=node-name

and note, in message BDT8673, the number of bytes transferred for some of the jobs. Then issue the command again a few minutes later and see if the number of bytes transferred has increased. If there is no increase in the number of bytes transferred, or if a job has a large elapsed time but few bytes transferred, there is a problem on the session, possibly in ACF/VTAM.

Getting Data Moving Again

To get the session working again, try canceling the session :i1 RESTART (R) command and starting it up again. To cancel it, first try.

prefix C,SNA,NODE=node-name,QUIESCE

If this doesn't work you will have to use

prefix C,SNA,NODE=node-name,FORCE

Several messages, including BDT2803, SESSION TERMINATED WITH node-name (appl-id), will be issued in response to the C,SNA command.

To restart the session use

prefix R,SNA,NODE=node-name

Message BDT2860 will tell you that a session is being started.

If the session still doesn't move data, the problem is most likely in ACF/VTAM. See the the ACF/VTAM publications or the person responsible for the ACF/VTAM network.

Determining If Data Is Moving on a Particular Job

To determine if data is moving on a particular job, use

prefix I,A,J=job-no

and note, in message BDT8673, the number of bytes transferred for the job. Then issue the command again a few minutes later and see if the number of bytes transferred has increased. If there is no increase in the number of bytes transferred, or if the job has a large elapsed time but few bytes transferred, there is a problem on the session, possibly in ACF/VTAM.

If data is not moving on a job, use

prefix I,J=job-no

to display more information. If message BDT8612 shows the job's status as complete (C) on the "from" node but active (A) on the "to" node, it may be that the "from" node has sent the last of the data but the session was interrupted before the data was received by the "to" node.

You may want to cancel, hold, or reschedule the stuck job.

Canceling, Holding, or Rescheduling a Job

Using BDT commands, you can cancel, hold, or reschedule a job that is on the work queue at your BDT subsystem.

If you have the file-to-file feature, you may also need to cancel, hold, or reschedule a job that is on the work queue at another node. See “Canceling, Holding, or Rescheduling a Job That Is on the Work Queue at Another Node” on page 11.

If You Don't Know the Job Number

To cancel a job you must know the job number, and to hold or reschedule a job you must know the job number and whether the job is active or not active.

If you don't know the number or status of the job, you could use the
prefix I,J=job-name

command, or the
prefix I,Q

command to display that information. See “Displaying Information About Jobs” on page 11 for other commands that will display the number and status of a job.

Canceling a Job That Is on the Work Queue at Your BDT Subsystem

- To cancel a job that is not in a DTC network use
prefix F,J=job-no,C

Look for message BDT8618 to tell you that the job is being canceled.

- To cancel a job that is in a DTC network use
prefix F,NET,ID=net-id,J=job-no,C

Look for message BDT8680 to tell you that the job is being canceled.

Holding a Job That Is on the Work Queue at Your BDT Subsystem

- To put an active job into operator hold use
prefix F,J=job-no,C,R,H

Look for message BDT8618.

- To put a job that is not active into operator hold use
prefix F,J=job-no,H

Look for message BDT8618 to tell you that the job is being held.

- To release a job that is in operator hold use
prefix F,J=job-no,R

Look for message BDT8618 to tell you that the job is being released from hold.

Rescheduling an Active Job That Is on the Work Queue at Your BDT Subsystem

To cancel and then reschedule an active job use
prefix F,J=job-no,C,R

Look for message BDT8618.

Canceling, Holding, or Rescheduling a Job That Is on the Work Queue at Another Node

A file-to-file job submitted at your file-to-file node may be in a session for which your file-to-file node is the local node; this job will be put on the work queue at the global node. Use

prefix SEND,node-name,command

to send a BDT command to the global node. For example, to cancel a file-to-file job at another node use

prefix SEND,node-name,F,J=job-no,C

Displaying Information About Jobs

The commands on the next few pages will help you display information about jobs that are on the work queue at your BDT subsystem.

If you have the file-to-file feature, you may need to display information about jobs that are at other nodes. File-to-file jobs submitted at your file-to-file node will be on the work queue at other nodes any time your file-to-file node is the local node in the session. For information on locating file-to-file jobs on work queues at other nodes, see “If a File-to-File Job Is on the Work Queue at Another Node” on page 12.

If You Know the Job Name or Job Number

To display the status of the job use

prefix I,J=job-no or job-name

It is usually better to use the job number, if you know it, rather than the job name, because a job number is unique to a job, while several jobs may have the same job name. Knowing the job’s status allows you to find out still more about the job:

- If the status is A (for active) you can use

prefix I,A,J=job-no

to tell you how long the job has been running and how many bytes of data have been transferred.

- If the status is Q (for on the work queue) there may be other information in the message:

H=OPR—the job is in operator hold. To release the job, use

prefix F,J=job-no,R

H=URS—the job is in hold because a data set is enqueued (it is unavailable). BDT will release the job in 15 minutes. If the data set is available, the job will run. Otherwise, the job will be put into enqueue hold again for another 15 minutes.

H=NET—the job is in a DTC network and is waiting for a predecessor job to complete. The DTC network name (*net-id*) and the job’s hold count are also in the message. See “Handling Problems in DTC Networks” on page 12 for ways to deal with problems in DTC networks. If you want to know what other jobs are in the same DTC network, use

prefix I,NET,ID=net-id

H=TQI—the job was submitted at the local node and is still on the TQI data set; the job may also be on the work queue at the global node but the local node has not yet received confirmation of this.

- For other fields in the message, such as S, C, RESCH, and CAN, see the explanation for BDT8612 in *z/OS BDT Messages and Codes*. There isn’t any

further investigation you can do with these fields. If the status is C on the sending node and A on the receiving (“to”) node, see “Determining If Data Is Moving on a Particular Job” on page 9.

If You Know Part of the Job Name

If you know at least the first character of the job name you can use

*prefix I,J=job-name**

entering as much as you know of the job name followed by an asterisk (*). This will display the jobs whose names begin with those characters. For example, if you know that the job name begins with the letters DBP, use *prefix I,J=DBP**.

If You Don't Know the Job Name or Job Number

- Did you submit the job? If so, use

*prefix I,Q,**

to display the jobs submitted from your terminal.

- Do you know the other node name (the one that is not your own node) for the job? If so, use

prefix I,Q,NODE=node-name

- If there is a large work queue, you could narrow your search by using

prefix I,A,NODE=node-name

to display the job if it is active, or

prefix I,B[,TO=node-name,FROM=node-name,+ ORIGIN=node-name]

to display the job if it is not active but is backlogged. Use the TO, FROM, and ORIGIN parameters if you know this information about the nodes involved.

- If you know the priority of the job you could use

prefix I,P=prty

to display the jobs of that priority.

- If you know that the job is in a DTC network and you know the network ID, use

prefix I,NET,ID=net-id

to display the jobs in that network.

- If you know that the job is in a DTC network but you do not know the network ID, you could use

prefix I,NET

to display the network IDs of every DTC network at your BDT subsystem.

If a File-to-File Job Is on the Work Queue at Another Node

If the job you want to locate is a file-to-file job on the work queue at another node use

prefix SEND,node-name,command

to send a BDT command to the other node. For example, to find out the number of a job that is active at another node you could send the I,A command to that node:

prefix SEND,node-name,I,A

Handling Problems in DTC Networks

Dependent transaction control (DTC) networks can be very complicated structures. If you experience a problem with a DTC network you may want to notify the user who submitted the jobs or the person in your installation who is responsible for maintaining DTC networks.

Runaway First Job in a DTC Network

Unless the DTC network is carefully constructed, the first job in the network can run and complete before its successors are submitted. This kind of “runaway” first job will not release its successors, and as a result, the rest of the DTC network will never run.

If a DTC network gets held because of a runaway first job, you can use the *prefix F,NET,ID=net-id,J=job- no,D*

command or the

prefix F,NET,ID=net-id,J=job- no,R

command to start the network moving. Look for message BDT8680 to tell you the job is released. You must know the structure of the network to use these commands effectively. If you do not know the structure of the network, you will have to flush the entire network.

Flushing a DTC Network

Use the

prefix F,NET,ID=net-id,J=job- no,F

command to flush a DTC network. You will get a message BDT8680 for the job you specified with *job-no* and for each successor job in the network that is flushed.

The *F,NET,ID=net-id,J=job-no,F* command flushes **only** the job and its successors. You can display the remainder of the network with

prefix I,NET,ID=net-id

Then, use

prefix F,NET,ID=net-id,J=job- no,F

against the remaining jobs, checking each time with *I,NET,ID=net-id* until the DTC network is entirely gone.

Preventing a Runaway First Job in a DTC Network

After flushing a DTC network that was stuck, tell the user to resubmit the DTC network, using one of the following methods to prevent the runaway first job problem:

- Submit the network “bottom-up”, that is, submit the first job last.
- Submit the first job in operator hold, then release it after the entire network has been submitted by using

prefix F,J=job-no,R

Message BDT8618 will tell you that the job has been released.

- Give the first job a hold count, then release it after the entire network has been submitted by using

prefix F,NET,ID=net-id,J=job- no,R

Message BDT8680 will tell you that the job has been released.

Releasing a Job from DTC Network Hold

A job in a DTC network is normally released when all its predecessor jobs complete. You might need to release a job manually if one of its predecessors abends or is canceled. Or, you might need to release a job manually if it has been given a hold count (with the NETHOLD parameter when it was submitted) that is higher than the number of predecessors for the job.

- To release a job you can lower its hold count, one unit at a time, by using

prefix F,NET,ID=net-id,J=job- no,D

Message BDT8680 will tell you the hold count of the job until it is 0; then the message will tell you that the job has been released.

- To release a job no matter how high the hold count, use
prefix F,NET,ID=net-id,J=job-no,R

Message BDT8680 will tell you the job has been released.

The Job Released from DTC Hold Still Won't Run

The job may be in another hold status as well, such as operator hold. Use
prefix I,J=job-no

to find out if the job is in another hold status. If message BDT8612 tells you that H=OPR or H=URS, use
prefix F,J=job-no,R

to release the job.

Jobs Are Rejected When a DTC Network Is Submitted

This problem is related to the problem of jobs remaining after flushing a DTC network.

If a DTC network is submitted when there are jobs with the same network ID already in the system, the new jobs will combine with the other jobs to form a DTC network that will not run properly (unless the remaining old jobs and the incoming new jobs are identical).

When this happens you should notify either the user who submitted the jobs or the person in your installation who is responsible for maintaining DTC networks. The easiest solution is to flush out the entire DTC network with that ID. Use
prefix F,NET,ID=net-id,J=job-no,F

You will get a message BDT8680 for the job you specified with *job-no* and for each successor job in the network that is flushed. If you do not flush the entire network, you must know the exact structure of both the old and new networks and be very careful about canceling jobs, adjusting hold counts, and so on.

Managing the BDT System Log

The BDT system log contains information about BDT processing. Using BDT commands, you can change the destination of the BDT system log, and print the BDT system log.

Changing the Destination of the BDT System Log

When changing the destination of the BDT system log, you might first display the current destination using
prefix I,LOG

Routing the Log to Your Console

- To route the BDT system log to your console in addition to its original destination use
*prefix F,LOG,ADEST=**

Message BDT8711 will tell you that your console has been added to the destination routing table of the log.

- To change the destination of the BDT system log from its original destination to your console use
prefix F,LOG,SYSLOG=WTO

Message BDT9921 will tell you the new primary log destination.

Routing the Log to Another Console

- To route the BDT system log to a console in addition to its original destination use

prefix F,LOG,ADEST=node-name,sys-name,console-type,console-name

Message BDT8711 will tell you that the console has been added to the destination routing table of the log.

- To change the destination of the BDT system log from its original destination to a console receiving JES3 routing code messages use

prefix F,LOG,SYSLOG=JES3

Message BDT9921 will tell you the new primary log destination.

Route the log only to a console that “rolls”, and not to a console that has to be cleared.

Printing the BDT System Log

You can print the BDT system log if the destination of the log is a printer. Use

prefix I,LOG

to display the current destination of the BDT system log.

If the destination is not a printer, use

prefix F,LOG,SYSLOG=PRINT

to change the destination to a printer. Message BDT9921 will tell you the new primary log destination.

To print the log use

prefix F,LOG,WRITE

Look for message BDT9932 to tell you that the BDT system log is being sent to a printer.

Chapter 3. Command Reference

This chapter describes all of the BDT commands.

The commands are in alphabetic order by abbreviated command name, and each command begins a new page. Each command description contains a brief explanation of the purpose of the command, a syntax diagram, some brief usage notes, messages BDT issues in response to the command, and some examples of the command in use.

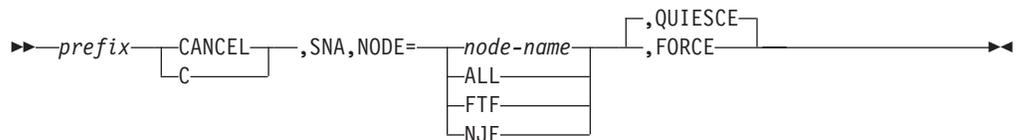
If you do not understand terms or rules of command syntax, refer to Chapter 1. Writing and Submitting BDT Commands.

C,SNA — Cancel a Session

Purpose

Use this command to cancel a session between a node at your BDT subsystem and another node or nodes. Canceling a session stops all communication.

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

is required.

node-name

is the name of the node to which communication is to be stopped. Specify only one node name.

ALL

specifies that communication to all nodes is to be stopped. This cancels the BDT SNA manager.

FTF

specifies that all file-to-file communication is to be stopped.

NJE

specifies that all NJE communication is to be stopped.

FORCE

disables the session immediately. Jobs being processed will be terminated.

QUIESCE

disables the system in an orderly fashion. Jobs being processed will be allowed to complete; no new jobs will be begun. If you do not specify `FORCE` or `QUIESCE`, `QUIESCE` is assumed.

C,SNA

Usage Notes

1. All forms of this command disable automatic session restart (ASR).
2. When stopping communication between file-to-file nodes, you can issue this command at either the local node or the global node.
3. You must be authorized to use this command.
4. To restart sessions terminated with C,SNA,NODE=*node-name*, C,SNA,NODE=FTF, or C,SNA,NODE=NJE, use the START,SNA or RESTART,SNA command.
To restart sessions terminated with C,SNA,NODE=ALL, use the X,SNA command to reactivate the BDT SNA manager, and the START,SNA command to start the sessions.
5. The QUIESCE parameter allows jobs on the session to finish, and so saves you from having to resubmit jobs that are being processed when you issue the CANCEL command. The FORCE parameter does not allow jobs on the session to finish. NJE jobs terminated with the FORCE parameter will have to be resubmitted. File-to-file jobs terminated with the FORCE parameter may be restarted from the last checkpoint.
6. If you issue a CANCEL command with the QUIESCE parameter, but then decide you do not want to wait for an orderly session shutdown, you may issue a second CANCEL command with the FORCE parameter before the first CANCEL has completed.
7. To suspend the transfer of data without canceling the session, use the V (VARY) command.

Results

BDT issues these messages:

```
BDT2861 SESSION CANCEL REQUESTED FOR node-name (appl-id)
        TYPE={FTF|NJE}
BDT2866 STOP SESSION INITIATED - node-name (appl-id) -
        ERC=(err codes) - OPERATOR CANCELLED SESSION
BDT2803 SESSION TERMINATED WITH node-name (appl-id)
BDT2820 SCIP SESSION UNBIND REQUESTED FOR node-name
        (appl-id), TYPE={FTF|NJE}
BDT2803 SESSION TERMINATED WITH node-name (appl-id)
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

For C,SNA,NODE=ALL, BDT2861 is not issued, and the following additional messages are issued:

```
BDT2866 STOP SESSION INITIATED - node-name (appl-id) -
        ERC=(err codes)
BDT2805 SNA MANAGER TERMINATED
BDT6006 (0001,SNA) JOB ENDED AT hh:mm:ss ON yyyy.ddd -
        COMP=ZE RO
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

Examples

1. Using an F *id* prefix, stop communication between your node, SYSA1, and node SYSA2. The identifier of BDT (for use in the prefix) is A1.
F A1 CANCEL,SNA,NODE=SYSA2

Result:

```
BDT2861 SESSION CANCEL REQUESTED FOR SYSA2 (APPLA2)
        TYPE=FTF
BDT2866 STOP SESSION INITIATED - SYSA2 (APPLA2) -
        ERC=(D04,0) - OPERATOR CANCELLED SESSION
BDT2803 SESSION TERMINATED WITH SYSA2 (APPLA2)
BDT2820 SCIP SESSION UNBIND REQUESTED FOR SYSA1
        (APPLA1), TYPE=FTF
BDT2803 SESSION TERMINATED WITH SYSA1 (APPLA1)
```

- Using the *S,BDT prefix, stop all file-to-file communication immediately between your file-to-file node and other nodes.

```
*S,BDT,CANCEL,SNA,NODE=FTF,FORCE
```

Result:

```
BDT2862 SESSION QUIESCE REQUESTED FOR SYSA2 (APPLA2), TYPE=FTF
BDT2861 SESSION CANCEL REQUESTED FOR SYSA2 (APPLA2)
        TYPE=FTF
BDT2866 STOP SESSION INITIATED - SYSA2 (APPLA2) -
        ERC=(D04,0) - OPERATOR CANCELLED SESSION
BDT2803 SESSION TERMINATED WITH SYSA2 (APPLA2)
BDT2820 SCIP SESSION UNBIND REQUESTED FOR SYSA1
        (APPLA1), TYPE=FTF
BDT2803 SESSION TERMINATED WITH SYSA1 (APPLA1)
```

- Using the *S,BDT prefix, stop communication between your node, SYSA1, and all other nodes.

```
*S,BDT,CANCEL,SNA,NODE=ALL
```

Result:

```
BDT2866 STOP SESSION INITIATED - SYSA2 (APPLA2) -
        ERC=(C04,0)
BDT2803 SESSION TERMINATED WITH SYSA2 (APPLA2)
BDT2805 SNA MANAGER TERMINATED
BDT6006 (0001,SNA) JOB ENDED AT 18:56:46 ON 83.152 -
        COMP=ZERO
BDT2820 SCIP SESSION UNBIND REQUESTED FOR SYSA1
        (APPLA1), TYPE=FTF
BDT2803 SESSION TERMINATED WITH SYSA1 (APPLA1)
```

DUMP — Dump the BDT Address Space

Purpose

Use this command to take a formatted dump of the BDT address space.

Format

```
►► prefix—DUMP—,TITLE—'OPERATOR-REQUESTED-DUMP'—
                        'dump-title'—►►
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

dump-title

is the title you assign to the dump. The title can be up to 50 characters long, and should be enclosed in single quotation marks. If you omit this parameter, the title for your dump is “OPERATOR-REQUESTED-DUMP.”

DUMP

Usage Notes

1. You must be authorized to use this command.
2. This command does not bring down BDT.

Results

Before taking the dump, BDT issues this message if the WANTDUMP=ASK parameter was specified in the OPTIONS initialization statement:

```
BDT9990 SPECIFY DUMP OPTION {YES|NO|BDT|PRDMP}
```

Refer to *z/OS BDT Messages and Codes* for a description of the dump options.

After taking the dump, BDT issues these messages:

```
BDT3720 BDT FORMATTED DUMP COMPLETE, BD008, COMMGR  
BDT9936 OPERATOR-REQUESTED DUMP COMPLETE
```

See *z/OS BDT Diagnosis Reference* for a description of the dump produced.

Example

Using an *F id* prefix, dump the BDT address space and call the dump MYDUMP. The BDT *id* (for use in the prefix) is A1.

```
F A1 BDT,DUMP,TITLE='MYDUMP'
```

Result:

```
BDT3720 BDT FORMATTED DUMP COMPLETE, BD008, COMMGR  
BDT9936 OPERATOR-REQUESTED DUMP COMPLETE
```

F,DUMP — Change the Dump Option

Purpose

Use this command to change the BDT formatted dump option that will be used if BDT fails.

Format

```
►► prefix [MODIFY] ,DUMP [ ,YES  
[ F ] [ ,NO  
[ ,ASK ]
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

DUMP

is the BDT formatted dump option.

YES

specifies that a dump is to be taken if BDT fails.

NO

specifies that no dump is to be taken if BDT fails.

F,J,C

DUMP

requests that BDT take a dump. BDT takes a BDT formatted dump and either an MVS SVC dump or a S060 system dump. Use this parameter only with active jobs.

- R** reschedules the canceled job. If it is a file-to-file job, it restarts from the last checkpoint taken. If it is a SNA NJE job, it restarts from the beginning; there are no checkpoints for NJE. Use this parameter only with active jobs.
- H** puts the canceled job back on the work queue, in operator hold. Use this parameter only with active jobs.

Usage Notes

1. You may need to be authorized to use this command.
2. Do not use this command for dynamic application programs (DAPs), such as the BDT SNA manager, which also appear on the work queue.
3. To hold a job that is not active, use F,J,H.
4. If you want to cancel a job but don't know the job number, use either the I,Q command or the I,J=*job-name* command to display the number of the job you want to cancel.
5. To cancel a job that is in a DTC network, use the F,NET,ID,J,C command.

Results

BDT issues this message if the job was on the work queue but not active:

```
BDT8618 JOB job-no job-name, CANCEL REQUEST FROM
        BDT OPERATOR INITIATED
```

BDT issues this message if the job was active:

```
BDT8618 JOB job-no job-name, CANCEL REQUEST FROM
        BDT OPERATOR ACCEPTED
```

BDT produces a BDT formatted dump with completion code BD122. Depending on the options used at your installation, BDT also produces either an MVS SVC dump with a U07A abend (the hex representation of BD122) or an S060 system dump requested by the SYSUDUMP, SYSABEND, or SYSMDUMP DD statement in the BDT start procedure.

For DUMP, BDT takes a BDT formatted dump, and either an MVS SVC dump or an S060 system dump.

Examples

1. Using an F *id* prefix, cancel job 0357, which is not active. The BDT *id* is BDT1.
F BDT1 BDT,F,J=0357,C

Result:

```
BDT8618 JOB 0357 MYJOB, CANCEL REQUEST FROM
        BDT OPERATOR INITIATED
```

2. Using an F *id* prefix, cancel active job 0846 with a dump. The BDT *id* (for use in the prefix) is A1.

```
F A1 MODIFY,J=0846,C,DUMP
```

Result:

```
BDT8618 JOB 0846 THISJOB, CANCEL REQUEST FROM
        BDT OPERATOR ACCEPTED
```


F,J,H or R

3. To release a job that is in a DTC network from DTC network hold, use the F,NET,ID,J,R command.

Result

BDT issues this message:

```
BDT8618 JOB job-no job-name, {HELD|RELEASED}
```

Examples

1. Using a prefix of BDT, put job 0145 into hold.

```
BDT,F,J=0145,H
```

Result:

```
BDT8618 JOB 0145 THISJOB, HELD
```

2. Using an F *id* prefix, release job 0145 from hold. The identifier of BDT (for use in the prefix) is A1.

```
F A1 MODIFY,J=0145,R
```

Result:

```
BDT8618 JOB 0145 THISJOB, RELEASED
```

F,J,P — Change a Job's Priority

Purpose

Use this command to change the priority of a job on the work queue.

Format

```
►► prefix—[MODIFY]—,J=(—job-no—),P=prty—►►  
          └─┬─┘  
          F
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

job-no

is the number of the job whose priority is to be changed. The job cannot be active.

prty

is the new priority to be assigned to the job. Priorities range from 0 to 15, with 15 the highest priority and the first to be scheduled.

Usage Notes

1. Use this command only for jobs that result from a transaction. Do not use it for a dynamic application program (DAP), such as the BDT SNA manager, though DAPs also appear on the work queue.
2. To display the priority of a job use the I,J command.

F,JES3

BDT issues this message for MODIFY,JES3,RESUME:
BDT9965 NJE TRANSACTIONS ARE RESUMED FROM JES3

or, if JES3 is already resumed:

BDT9965 NJE TRANSACTIONS ARE ALREADY RESUMED FROM JES3

Examples

1. Using a prefix of *S,BDT, suspend NJE transactions from JES3 to BDT.

```
*S,BDT,F,JES3,SUSPEND
```

Result:

BDT9965 NJE TRANSACTIONS ARE SUSPENDED FROM JES3

2. Using a prefix of *S,BDT, resume NJE transactions from JES3 to BDT.

```
*S,BDT,F,JES3,RESUME
```

Result:

BDT9965 NJE TRANSACTIONS ARE RESUMED FROM JES3

F,LOG,ADEST or DDEST — Specify the Destination of the BDT System Log

Purpose

Use this command to route the BDT system log to your console or to any console in the BDT network. The system log will also go to its original destination.

Format

```
►► prefix [MODIFY] , LOG [ADEST] [DDEST] = _____  
          └─┬─┘                  └─┬─┘  
          F                          *  
  
► [ * ( node-name , sys-name , type , name ) ] _____ ◀◀
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG

specifies the BDT system log.

ADEST

causes the BDT system log to be routed to the indicated destination.

DDEST

stops reception of the BDT system log at the indicated destination.

* causes the BDT system log to be routed to the console at which the command is entered.

node-name

is the name of the node to which the log is to be routed.

sys-name

is the identifier of the processor to which the log is to be routed (1 to 8 characters).

type

is the identifier of the type of console to which the log is to be routed (3 to 5 characters):

- TSO — TSO user
- JES — JES3 console
- MCS — MCS console
- JMC — JES3 console destination class.

name

is the name of the console to which the log is to be routed (1 to 8 characters):

- User ID for a TSO user
- Console name for a JES3 console
- Console name for an MCS console
- JES3 message class name.

Note: Do not route the log to a TSO terminal or a console that has to be “cleared”. This type of console will flood with the log messages, and you will not be able to enter a command to stop receiving the log. Route the log only to a console that “rolls”.

Usage Note

For a description of JES3 console destination classes, see *z/OS JES3 Commands*.

Results

BDT issues this message:

```
BDT8711 node-name sys-name type name {ADDED TO|
      DELETED FROM} SYSLOG DESTINATION ROUTING TABLE
```

The destination specified in the command receives or stops receiving the BDT system log.

Examples

1. Using a prefix of *S,BDT, route the BDT system log to this console (which is JES3 console CN1 on system SY1 at node SPK01).

```
*S,BDT,F,LOG,ADEST=*
```

Result:

```
BDT8711 SPK01 SY1 JES CN1 ADDED TO SYSLOG DESTINATION
      ROUTING TABLE
```

2. Using a prefix of *S,BDT, stop reception of the BDT system log at JES3 console CN2 on system SY1 at your node, SPK01.

```
*S,BDT,MODIFY,LOG,DDEST=(SPK01,SY1,JES,CN2)
```

Result:

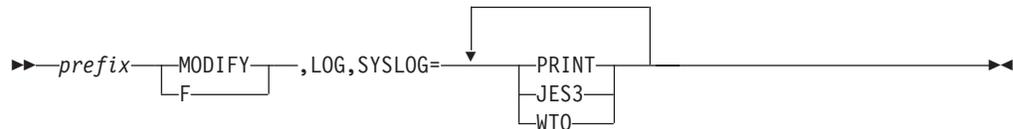
```
BDT8711 SPK01 SY1 JES CN2 DELETED FROM SYSLOG DESTINATION
      ROUTING TABLE
```

F,LOG,SYSLOG — Change the BDT System Log Destination

Purpose

Use this command to change the output device for the BDT system log from its original destination to a new destination. The output device you designate may be one or more of the following: a printer, consoles receiving JES3 routing code messages, or your console.

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG

specifies the BDT system log.

PRINT

specifies a printer as the output device for the system log.

JES3

specifies consoles receiving JES3 routing code messages as the output device for the system log.

WTO

specifies your console as the output device for the system log.

Note: Do not route the log to a console that has to be “cleared”. This type of console will flood with the log messages, and you will not be able to enter a command to stop receiving the log. Route the log only to a console that “rolls”.

Usage Notes

1. When specifying more than one output device, use commas to separate output devices and enclose the list in parentheses. (See the examples.)
2. Use the I,LOG command to display the current log destination.

Results

BDT issues this message:

```
BDT9921 PRIMARY SYSLOG DESTINATION(S): {[PRINT|JES3|WTO]}
```

The BDT system log is routed to the designated devices.

Examples

1. Using an F *id* prefix, route the BDT system log to the printer. The identifier of BDT (for use in the prefix) is A2.
F A2 MODIFY,LOG,SYSLOG=PRINT

Result:

BDT9921 PRIMARY SYSLOG DESTINATION(S): PRINT

- Using a prefix of *S,BDT, route the BDT system log to the printer and to JES3 consoles.

e12BDT,F,LOG,SYSLOG=(PRINT,JES3)

Result:

BDT9921 PRIMARY SYSLOG DESTINATION(S): PRINT,JES3

F,LOG,MSGPROP — Change the BDT Message Propagation Option

Status

Purpose

Use this command to change the message propagation option status.

Format

```

▶▶ prefix — MODIFY — ,LOG,MSGPROP=(YES|NO) —▶▶
F

```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG

specifies the BDT system log.

YES

specifies message propagation is to be enabled. This option will allow the BDT system to route messages that come from another BDT system to the nodes in routing table.

NO

specifies message propagation is to be disabled. This option will prevent messages coming from another BDT system from being routed to the BDT nodes in the routing table. This does not affect the routing of messages that do not come from another BDT system as the output device for the system log.

Usage Note

If you specify MSGPROP=YES, you may expose your BDT system to a possible message loop if any of the BDT nodes route messages to a node that has already routed the message.

F,LOG,WRITE — Print the BDT System Log

Purpose

Use this command to print the BDT system log.

F,LOG,WRITE

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG

specifies the BDT system log.

WRITE

causes the contents of the BDT system log to be printed.

Usage Note

The BDT system log destination must be a printer. Use the I,LOG command to display the destination of the log. If the destination is not a printer, use the F,LOG,SYSLOG=PRINT command to change the destination to a printer.

Result

BDT issues this message:

```
BDT9932 A BDT SYSLOG DATA SET HAS BEEN QUEUED TO SYSOUT
        CLASS 'x'
```

Example

Using an F *id* prefix, print the contents of the BDT system log. The BDT *id* is A1.

```
F A1 F,LOG,WRITE
```

Result:

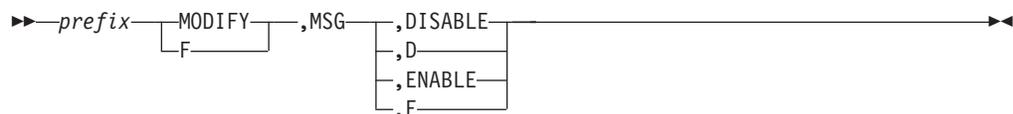
```
BDT9932 A BDT SYSLOG DATA SET HAS BEEN QUEUED TO SYSOUT
        CLASS 'x'
```

F,MSG,E or D — Enable or Disable the TQI Message Handler

Purpose

Use this command to disable or enable the TQI message handler for routing messages.

Format



prefix

is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

bdt-char

BDT,*node-name*

bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

When using BDT,*node-name*, substitute a node name for *node-name*.

Do not use a prefix when submitting commands in a batch job.

MSG

specifies the TQI message handler.

DISABLE or D

disables the message handler for routing messages.

ENABLE or E

enables the message handler for routing messages.

Usage Notes

1. You can use this command at two types of consoles only:
 - The MCS console for the processor on which the TQI address space exists.
 - A JES3 console. From a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
2. For information on defining *bdt-char*, see *z/OS BDT Installation*
3. In most cases, BDT will disable the message handler automatically when it encounters errors. However, in some cases you will need to disable the message handler with this command. Your system programmer will tell you when to disable the message handler.
4. Use this command to enable the message handler again after an error disabling it has been fixed. Again, your system programmer will tell you when to enable the message handler.

Results

For DISABLE:

- Messages will not be recorded on the message data set.
- All messages will go to the BDT system log.
- WTO messages will go to operators' consoles.
- BDT will attempt to route other messages to their destinations, but may not be successful.

BDT issues this message for DISABLE:

```
BDT2120 node-name MSG DISABLE COMMAND PROCESSED
```

For ENABLE, messages will be recorded on the message data set and will be routed to their usual destinations as well as to the BDT system log.

BDT issues this message for ENABLE:

```
BDT2120 node-name MSG ENABLE COMMAND PROCESSED
```

Examples

1. From the MCS console, disable the message handler for routing messages. The *bdt-char* prefix is +.


```
+MODIFY,MSG,D
```

F,MSG,E or D

Result:

BDT2120 SPK01 MSG DISABLE COMMAND PROCESSED

2. From a JES3 console, enable the message handler for routing messages on processor SY1. The *bdt-char* prefix is +.

*SEND SY1 +MODIFY,MSG,E

Result:

BDT2120 SPK01 MSG ENABLE COMMAND PROCESSED

F,MSG,STATUS — Display the Status of the TQI Message Handler

Purpose

Use this command to display the status of the TQI message handler. The status displayed includes whether the message handler is active (in existence) and whether it is enabled or disabled (recording or not recording messages).

Format

→ *prefix* — [MODIFY] — ,MSG — [,STATUS] — →
 └─ F ─┘ └─ ,ST ─┘

prefix

is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

bdt-char

BDT,*node-name*

bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

When using BDT,*node-name*, substitute a value for *node-name*.

Do not use a prefix when submitting commands in a batch job.

MSG

specifies the TQI message handler.

STATUS or ST

displays the status of the message handler.

Usage Notes

1. If you use this command when messages are going to the system log because the message handler is disabled or not active, you will still receive the response to this message on your console.
2. You can use this command at two types of consoles only:
 - The MCS console for the processor on which the TQI address space exists.
 - A JES3 console. At a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
3. For information on defining *bdt-char*, see *z/OS BDT Installation*

Result

BDT issues this message:

```
BDT2132 node-name MSG STATUS: {ACTIVE|NOT ACT} /
{ENABLED|DISABLED}
```

Example

From the MCS console, display the status of the message handler. The *bdt-char* prefix is +.

```
+F,MSG,STATUS
```

Result:

```
BDT2132 SPK01 MSG ACTIVE / ENABLED
```

F,NET,ID,J,C — Cancel a Job in a DTC Network

Purpose

Use this command to cancel a job in a dependent transaction control (DTC) network.

Format

```

  >> prefix — MODIFY — ,NET, ID=net-id, J=( — job-no — ), C — >>
  |_____F_____|
  
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET

specifies that jobs being affected are in a DTC network.

net-id

is the identifier of the DTC network containing the job to be canceled.

job-no

is the number of the job to be canceled.

C specifies that the job should be canceled. If the job is not active it will be canceled immediately. If the job is active it will complete before being canceled. In either case, successor jobs will not be released.

Usage Notes

1. When using this command, consider the effect that canceling a job has on the rest of the network. For example, perhaps you should lower the hold count of the other jobs and let them run, or cancel or flush part or all of the network.
2. If you want to cancel a job in a DTC network but don't know the job number, use I,NET,ID=*net-id* to display the jobs in the network. If you don't know the network ID, use I,NET to display the network ID of every DTC network at your BDT subsystem.

F,NET,ID,J,C

Result

BDT issues this message:

```
BDT8680 JOB job-no (job-name), NET=net-id, CANCELED [(A)]
```

The letter A indicates the job was active when canceled.

Example

Using a prefix of *S,BDT, cancel job 2046 in network WHSE06.

```
*S,BDT,F,NET,ID=WHSE06,J=2046,C
```

Result:

```
BDT8680 JOB 2046 (WHSE1), NET=WHSE06, CANCELED
```

F,NET,ID,J,I or D — Change the Hold Count of a Job in a DTC Network

Purpose

Use this command to raise by one or lower by one the hold count of a job in a dependent transaction control (DTC) network. This changes the number of predecessor jobs that must complete before the job can be scheduled.

Format

```
➔ prefix MODIFY,NET,ID=net-id,J=(job-no), I | D ➔
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET

specifies that the job is in a DTC network.

net-id

is the identifier of the DTC network containing the job.

job-no

is the number of the job whose hold count is to be lowered or raised. The job must be in DTC network hold.

I increases the hold count by 1.

D decreases the hold count by 1.

Usage Notes

1. Use this command only for jobs that are in DTC network hold; do not use it for active jobs.
2. See the F,J,C and F,J,H or R commands for jobs that are not in DTC networks.
3. If you want to change the hold count of a job in a DTC network but don't know the job number, use I,NET,ID=*net-id* to display the jobs in the network. If you don't know the network ID, use I,NET to display the network ID of every DTC network at your BDT subsystem.

F,NET,ID,J,F

- Never assume that you have flushed out an entire DTC network with this command. Always use the I,NET,ID command to check.

Results

BDT issues this message for the job you used in the command:

```
BDT8680 JOB job-no (job-name), NET=net-id, FLUSHED [(A)]
```

BDT then issues this message showing each successor job being flushed:

```
BDT6220 JOB (job-no job-name), NET=net-id, REL=(job-no,job-name),  
        FLUSHED [(A)]
```

BDT flushes the job and its successor jobs.

Example

Using a prefix of BDT, cancel job 0087 and all jobs after it in network RECVD30. Job 0087 has as its successors jobs 0089, 0090, 0092, and 0093. See Figure 2 for a description of the effect of this command.

```
BDT,F,NET,ID=RECVD30,J=0087,F
```

Result:

```
BDT8680 JOB 0087 (RECT02), NET=RECVD30, FLUSHED  
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0089,RECT03),  
        FLUSHED  
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0090,RECT05),  
        FLUSHED  
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0092,RECT07),  
        FLUSHED  
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0093,RECT08),  
        FLUSHED
```

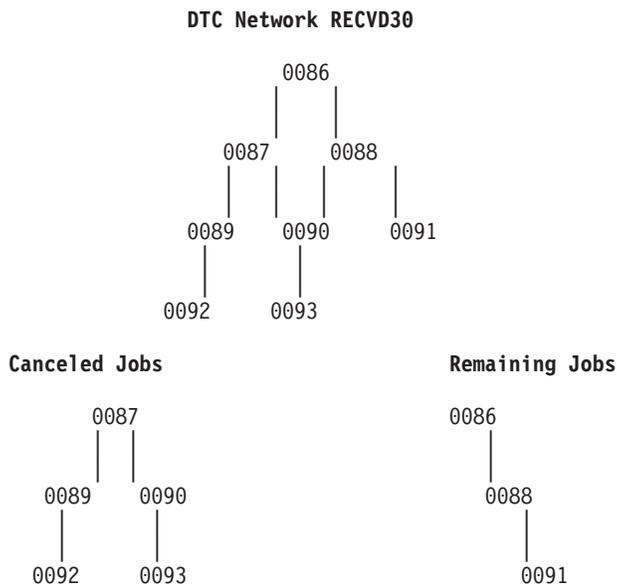


Figure 2. Canceling a DTC Network

F,NET,ID,J,R — Release a Job from DTC Network Hold

Purpose

Use this command to release a job that is in dependent transaction control (DTC) network hold. This command releases the job no matter what the hold count of the job is. It releases the job **only** from DTC network hold; it does not release the job from any other holds (such as operator hold).

Format

```

▶▶ prefix MODIFY ,NET, ID=net-id, J=( job-no ), R
└──┬──┘
  F

```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET

specifies that jobs being affected are in a DTC network.

net-id

is the ID of the DTC network containing the job.

job-no

is the number of the job you want to release.

R releases the job.

Usage Notes

1. Use this command only for jobs that are in DTC network hold; do not use it for active jobs.
2. Use the F,J,H or R command for jobs that are not in DTC networks.
3. If you want to release a job from DTC network hold but don't know the job number, use I,NET,ID=*net-id* to display the jobs in the network. If you don't know the network ID, use I,NET to display the network ID of every DTC network at your BDT subsystem.

Results

BDT issues this message:

```
BDT8680 JOB job-no (job-name), NET=net-id, RELEASED
```

BDT releases the job from network hold, regardless of its hold count.

BDT can now schedule and run the job, unless there are other restrictions on the job.

Example

Using a prefix of BDT, release job 0657 in network PAYOCT82.

```
BDT, F, NET, ID=PAYOCT82, J=0657, R
```

Result:

```
BDT8680 JOB 0657 (PAY01), NET=PAYOCT82, RELEASED
```

F,NODE,FENCE — Control VLU Fencing (File-to-File Feature Only)

Purpose

Use this command at the global node to change fencing of virtual logical units (VLUs) for file-to-file sessions.

VLU fencing controls the use of VLUs by direction. It allows you to set a certain number of VLUs for “from” use only, and a certain number for “to” use only. The rest remain available for use in either direction as needed.

Format

```
►►—prefix—┐MODIFY┐,NODE=node-name,FENCE=(from,to)————►►
             └──F──┘
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name

is the name of the local node. You cannot specify your own node for *node-name*.

FENCE=(from,to)

specifies how many VLUs are to be fenced in each direction:

- *from* is the number of VLUs to be used for data transfer from the local node to the global node
- *to* is the number of VLUs to be used for data transfer to the local node from the global node.

The total number of VLUs (*from* + *to*) must not exceed the total number of data transfer VLUs available (that is, the total VLUs on the session minus one for the communication VLU).

Usage Notes

1. This command is for file-to-file sessions only.
2. Use the I,NODE command to display the status of VLUs at a node or nodes.
3. The direction of fencing is in relation to the node specified as *node-name*. “From” means from the local node to the global node; “to” means to the local node from the global node.
4. Fencing that has been defined by this command will remain in effect until the next BDT restart. A restart puts the fencing defined at initialization into effect.
5. To remove fencing from all VLUs, use:
FENCE=(), FENCE=(0), or FENCE=(0,0).
6. You must be at the global node to use this command.

Results

BDT issues this message showing the status of each VLU.

```
BDT8645 {FTF|NJE} NODE node-name VLU vlu-name TYPE vlu-type
        VLU STATUS {ONLINE|OFFLINE}
        {ALLOCATED|UNALLOCATED}
        {OPEN|CLOSED} {SEND MODE|RECEIVE MODE}.
```


F,TQI,E or D

prefix

is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

bdt-char
BDT,*node-name*

bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

Do not use a prefix when submitting commands in a batch job.

TQI

specifies the BDT transaction queueing integrity (TQI) address space.

DISABLE or D

disables the TQI address space for recording transactions.

ENABLE or E

enables the TQI address space for recording transactions.

Usage Notes

1. You can use this command at two types of consoles only:
 - The MCS console for the processor on which the TQI address space exists.
 - A JES3 console. At a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
2. How you submit commands, and what BDT does with user's transactions when TQI is disabled, depends on whether TQI is required in your installation or not.
 - If TQI is not required, commands and transactions will bypass TQI processing and pass directly to BDT.
 - If TQI is required, BDT will reject commands and transactions unless they are submitted with the MVS MODIFY or F prefix. This prefix is:

```
MODIFY [bdt-proc.]bdt-id command
```

or

```
F [bdt-proc.]bdt-id command
```

where *bdt-proc* is the name of the cataloged procedure in SYS1.PROCLIB that is used to start BDT, and *bdt-id* is the installation-defined identifier used to identify BDT. Any other prefix will cause the command to be rejected by BDT.

3. You may want to use this command to disable TQI when you have suspended reading of the TQI checkpoint data set by BDT (with the S,TQI,SUSPEND command).
4. For information on defining *bdt-char*, see *z/OS BDT Installation*

Results

BDT issues this message for DISABLE:

```
BDT2120 node-name TQI DISABLE COMMAND PROCESSED
```

BDT issues this message for ENABLE:

```
BDT2120 node-name TQI ENABLE COMMAND PROCESSED
```

Examples

1. From an MCS console, disable recording of commands and transactions at node SPK01. The *bdt-char* prefix is +.

```
+MODIFY,TQI,D
```

Result:

```
BDT2120 SPK01 TQI DISABLE COMMAND PROCESSED
```

2. From an MCS console, enable TQI's recording of commands and transactions at node SPK01. The *bdt-char* prefix is +.

```
+MODIFY,TQI,E
```

Result:

```
BDT2120 SPK01 TQI ENABLE COMMAND PROCESSED
```

F,TQI,STATUS — Display the Status of the TQI Address Space

Purpose

Use this command to display the status of the TQI address space. The status displayed includes whether the TQI address space is active (in existence); whether it is enabled or disabled (recording or not recording); and whether TQI is defined as required or not required for your installation.

Format

```
►► prefix [MODIFY] ,TQI [STATUS]
           [F]           [ST]
           └──┬──┘       └──┬──┘
           └──┬──┘       └──┬──┘
           [F]           [ST]
```

prefix

is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

bdt-char

BDT,*node-name*

bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

Do not use a prefix when submitting commands in a batch job.

TQI

specifies the BDT transaction queueing integrity (TQI) address space.

STATUS or ST

displays the status of the TQI address space.

Usage Notes

1. You can use this command at two types of consoles only:
 - The MCS console for the processor on which the TQI address space exists.
 - A JES3 console. At a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
2. For information on defining the *bdt-char*, see *z/OS BDT Installation*

F,TQI,STATUS

Result

BDT issues this message:

```
BDT2127 node-name TQI STATUS:
      {REQUIRED|NOT REQ} / {ACTIVE|NOT ACT} /
      {ENABLED|DISABLED} / {DEFAULT|NOT DFLT}
```

Example

From an MCS console, display the status of the TQI address space at node SPK01. The *bdt-char* prefix is +.

```
+F,TQI,STATUS
```

Result:

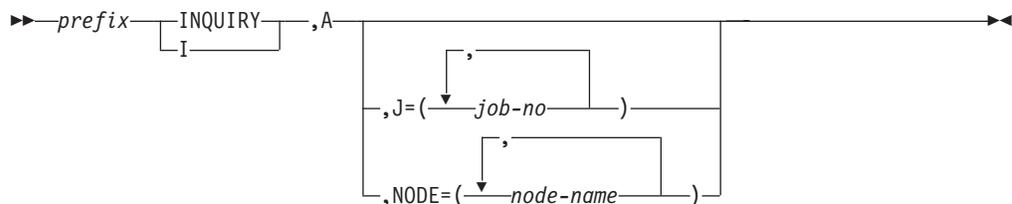
```
BDT2127 SPK01 TQI STATUS: REQUIRED / ACTIVE / ENABLED /
      DEFAULT
```

I,A — Display the Status of Active Jobs

Purpose

Use this command to display information about any or all jobs that are active at your BDT subsystem. An active job is a job on the BDT work queue that has been selected by BDT for processing. This command will not display complete information for inbound NJE jobs.

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

A specifies that the jobs being displayed are active jobs.

job-no

is the number of the job for which information is to be displayed.

node-name

is the name of a node. It specifies that all jobs active between your BDT subsystem and *node-name* are to be displayed.

If you do not specify *job-no* or *node-name*, this command will display all jobs that are active at your BDT subsystem.

Usage Note

For jobs that are on the work queue but are not active, use the I,J command.

Results

BDT issues these messages for each active job:

```
BDT8672 BDTJOB JOBNAME JESJOB DAP FROM TO ELAPSED CPU TIME BYTES
BDT8673 job-no job-name jesjob dap node1 node2 hh mm ss ss.hh nnnnn [K|M|G]
```

For jobs for which the sending and receiving nodes are the same, BDT will issue two BDT8673 messages.

For each job that is scheduled but is waiting for a data set, BDT issues this message:

```
BDT8673 job-no job-name jesjob dap node1 node2 {SHR=dsn|EXC=dsn}
```

Notice that the information displayed is the same as above except that the data set disposition is displayed instead of time and bytes information.

Examples

- Using a prefix of *S,BDT, display information for all active jobs.

```
*S,BDT,I,A
```

Result:

```
BDT8672 BDTJOB JOBNAME JESJOB DAP FROM TO ELAPSED CPU TIME BYTES
BDT8673 0166 PAY005 SEQ SPK02 MYNOD 00 00 12 00000.20 24587
BDT8673 2101 TOPJOB SEQ MCR10 MYNOD 01 28 16 00006.30 01307K
BDT8673 3656 LOWJOB PDS MYNOD NPZ05 00 42 13 00000.74 13815
.
.
.
BDT8673 8397 BDTJOB PDS MYNOD SPK02 00 09 26 00000.60 00145K
```

- Using a prefix of BDT, display information for job number 0166.

```
BDT,INQUIRY,A,J=0166
```

Result:

```
BDT8672 BDTJOB JOBNAME JESJOB DAP FROM TO ELAPSED CPU TIME BYTES
BDT8673 0166 PAY005 SEQ SPK02 MYNOD 00 00 12 00000.20 24587
```

- Using a prefix of *S,BDT, display information for all jobs active between node SPK02 and your BDT subsystem.

```
*S,BDT,I,A,NODE=SPK02
```

Result:

```
BDT8672 BDTJOB JOBNAME JESJOB DAP FROM TO ELAPSED CPU TIME BYTES
BDT8673 0166 PAY005 SEQ SPK02 MYNOD 00 00 12 00000.20 24587
.
.
.
BDT8673 8397 BDTJOB PDS MYNOD SPK02 00 09 26 00000.60 00145K
```

I,A,TCB — Display the Status of Active BDT Tasks

Purpose

Use this command to display the status of all active task control blocks (TCBs) for BDT tasks.

Format

```
▶▶—prefix—INQUIRY—,A,TCB—▶▶
      |_____|
      |_____I_____|
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

A specifies that the status of active TCBs is to be displayed.

TCB

specifies that the status of all active TCBs is to be displayed. There is one TCB for each resident BDT function and one for each request for data transfer.

Results

BDT issues this message:

```
BDT8670 S          TCB      DAP  USER          PROGRAM...
BDT8671 {A|W|N}  tcb-addr name {job-no|FCT} mod-name...

          ...SEQN          PSW
          ...rec-code seq-no  {.psw.|TCBFLGS tcbflgs}
```

If the job or function has failed or is in the process of failing, one of the following appears at the end of the message:

```
ABEND= {BDnnn|Snnn|Unnn}
```

```
ABEND IN PROGRESS
```

Example

Using a prefix of BDT, display the status of all active TCBs.

```
BDT,I,A,TCB
```

Result:

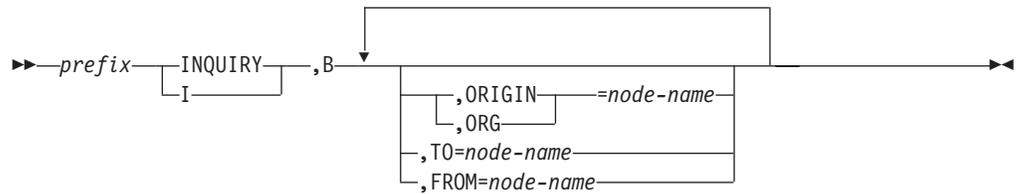
```
BDT8670 S  TCB  DAP  USER  PROGRAM  SEQN  PSW
BDT8671 N 74FDC8 WAIT  FCT  BDTINIT  0005  TCBFLGS 0000800400
BDT8671 N 74E990 TIMER FCT  BDTGSC1  0006  TCBFLGS 0002800400
BDT8671 N 74E098 COMMGR FCT  BDTGSC1  0007  TCBFLGS 0002800400
BDT8671 N 7525E0 MSDV  FCT  BDTGSC1  0008  TCBFLGS 0002800400
.
.
.
BDT8671 W 7027F8 PDS   0029          0042  .D16AB6.
```

I,B — Display Backlog of Jobs

Purpose

Use this command to display a summary of the backlog of jobs on the work queue at your BDT subsystem. This command also displays the number of active jobs on the work queue at your BDT subsystem, and BDT's use of sessions. The jobs displayed are file-to-file jobs for which your file-to-file node is the global node, and outbound NJE jobs. This command will not display complete information for inbound NJE jobs.

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

B specifies that the backlog of jobs is to be displayed.

ORIGIN=node-name or ORG=node-name

displays the backlog of jobs submitted at *node-name* for which your BDT subsystem is the source or destination node. Do not use more than one node name.

TO=node-name

displays the backlog of jobs that transfer data to *node-name* from your BDT subsystem. The job can have been submitted at your BDT subsystem or at *node-name*. If you specify your node for *node-name*, this displays jobs transferring data to that node from any other node. Do not use more than one node name with this parameter.

FROM=node-name

displays the backlog of jobs that transfer data from *node-name* to your BDT subsystem. The job can have been submitted at either node. If you specify your node for *node-name*, this displays jobs transferring data from that node to any other node. Do not use more than one node name with this parameter.

If you do not specify ORIGIN, TO, or FROM, this command displays all jobs backlogged at your work queue.

Usage Notes

1. To see the backlog of file-to-file jobs for which your file-to-file node is the local node, use SEND to send the I,B command to the nodes that are global to your file-to-file node. Use the name of your file-to-file node for *node-name*.
2. The list below shows various combinations of the TO, FROM, and ORIGIN keywords. For each set of keywords, there is a description of the jobs whose statistics will be included in the totals displayed in the messages.

I,B

You do not need to use the keywords shown in []: these are defaults forced by the combination of the other keywords. For example, in the first item, you would need to use only the TO= keyword.

TO=your-node [FROM=any] [ORIGIN=either]

specifies that the jobs transferring data to your node from any other nodes be displayed. The jobs can have been submitted at any node.

[TO=any] FROM=your-node [ORIGIN=either]

specifies that the jobs transferring data from your node to any other nodes be displayed. The jobs can have been submitted at any node.

[TO=any] [FROM=any] ORIGIN=your-node

specifies that the jobs submitted at your node be displayed. The jobs can transfer data either to or from your node.

TO=your-node FROM=other-node [ORIGIN=either]

specifies that the jobs transferring data to your node from another node be displayed. The jobs can have been submitted at either node.

TO=other-node [FROM=your-node] [ORIGIN=either]

specifies that the jobs transferring data to another node from your node be displayed. The jobs can have been submitted at either node.

TO=your-node [FROM=any] ORIGIN=your-node

specifies that the jobs submitted at your node, and transferring data to your node from any other node, be displayed.

[TO=any] FROM=your-node ORIGIN=your-node

specifies that the jobs submitted at your node, and transferring data from your node to any other node, be displayed.

TO=your-node FROM=your-node [ORIGIN=your-node]

specifies that the jobs that transfer data within your node, (internal transfer jobs), be displayed.

Note: If you want to display a summary of all jobs transferring data to a node at your BDT subsystem and also a summary of all jobs transferring data from a node at your BDT subsystem, you must use two separate commands: I,B,TO=your-node and I,B,FROM=your-node.

TO=your-node FROM=other-node ORIGIN=your-node

specifies that the jobs submitted at your node, and transferring data from another node to your node, be displayed.

TO=your-node FROM=other-node ORIGIN=other-node

specifies that the jobs submitted at another node, and transferring data from that node to your node, be displayed.

TO=other-node FROM=your-node ORIGIN=your-node

specifies that the jobs submitted at your node, and transferring data from your node to another node, be displayed.

TO=other-node FROM=your-node ORIGIN=other-node

specifies that the jobs submitted at another node, and transferring data from your node to that node, be displayed.

Results

BDT issues these messages:

```
BDT8697 ORIGIN FROM TO OPER URS DTC ACTIVE QUEUED TOTAL
BDT8697 node node node nnnn nnnn nnnn nnnn nnnn nnnn
BDT8696 SESSIONS=nnnn LIMIT=mmmm
```

Examples

- Using an F *id* prefix, display the backlog of jobs submitted at node OTHER and going either to or from your BDT subsystem. The identifier of BDT (for use in the prefix) is A1.

```
F A1 I,B,ORG=OTHER
```

Result:

```
BDT8697 ORIGIN FROM TO OPER URS DTC ACTIVE QUEUED TOTAL
BDT8697 OTHER          0001 0000 0007 0014 0003 0025
BDT8696 SESSIONS=0100 LIMIT=0150
```

- Using a prefix of *S,BDT, display the backlog of jobs being sent to your BDT subsystem from node ELSE1.

```
*S,BDT,I,B,FROM=ELSE1
```

Result:

```
BDT8697 ORIGIN FROM TO OPER URS DTC ACTIVE QUEUED TOTAL
BDT8697          ELSE1 0002 0000 0004 0030 0012 0048
BDT8696 SESSIONS=0100 LIMIT=0150
```

- Using an F *id* prefix, display the backlog of jobs waiting to be sent to node THEM2 from your BDT subsystem. The identifier of BDT (for use in the prefix) is A1.

```
F A1 INQUIRY,B,TO=THEM2
```

Result:

```
BDT8697 ORIGIN FROM TO OPER URS DTC ACTIVE QUEUED TOTAL
BDT8697          THEM2 0000 0001 0003 0010 0009 0023
BDT8696 SESSIONS=0080 LIMIT=0100
```

- Using a prefix of *S,BDT, display the backlog of jobs being sent to your BDT subsystem from node THERE, which were submitted at node THERE.

```
*S,BDT,I,B,ORIGIN=THERE,FROM=THERE
```

Result:

```
BDT8697 ORIGIN FROM TO OPER URS DTC ACTIVE QUEUED TOTAL
BDT8697 THERE THERE 0002 0000 0003 0008 0002 0015
BDT8696 SESSIONS=0100 LIMIT=0120
```

- Using a prefix of BDT, display the backlog of jobs waiting to be sent from the node in your BDT subsystem named MYNOD, to any other node, that were submitted at MYNOD.

```
BDT,I,B,FROM=MYNOD,ORIGIN=MYNOD
```

Result:

```
BDT8697 ORIGIN FROM TO OPER URS DTC ACTIVE QUEUED TOTAL
BDT8697 MYNOD MYNOD 0003 0000 0012 0010 0008 0033
BDT8696 SESSIONS=0106 LIMIT=0150
```

- Using a prefix of *S,BDT, display the backlog of internal transfer jobs waiting. (Internal transfer jobs transfer data from one data set at your node to another data set at a node in your BDT subsystem.) Your node is HERE0.

```
*S,BDT,INQUIRY,B,FROM=HERE0,TO=HERE0
```

Result:

I,B

```
BDT8697  ORIGIN  FROM TO   OPER  URS   DTC  ACTIVE  QUEUED  TOTAL
BDT8697           HERE0 HERE0 0000 0000 0000 0002   0000   0002
BDT8696  SESSIONS=0106  LIMIT=0150
```

I,C — Display the Status of Cell Pools and SNA Buffer Pools

Purpose

Use this command to display the status of cell pools and SNA buffer pools.

Format

```
▶▶—prefix—INQUIRY—,C—  
└─┬─┘└─┬─┘  
  I     ,name  
       ,SNA
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

C specifies that the status of cell pools and SNA buffer pools is to be displayed.

name

is the name of the cell pool for which status is to be displayed.

SNA

specifies that the status of the SNA buffer pool is to be displayed.

If you do not specify *name* or *SNA*, this command displays the status of all cell pools and SNA buffers.

Result

BDT issues this message:

```
BDT8639 ----- CELL POOL STATISTICS -----
BDT8639  ID  SIZE  TOTL  INUS  MXUS  DPLT  SDWNCT  STATUS  SUBPOOL
BDT8639  name nnnn  nnnn  nnnn  nnnn  nnnn  nnnnnn  nnnnnnnn  nnn
.
.
.
BDT8639 ----- IFC GETMAINED STORAGE -----
BDT8639  USAGE  CUR-STORAGE  MAX-STORAGE  CUR-CNT  MAX-CNT  SUBPOOL
BDT8639  TYPE   nnnnnnnn    nnnnnnnn    nnnnnnnn  nnnnnnn  nnn
```

Examples

1. Using an *F id* prefix, display status of all cell pools. The identifier of BDT (for use in the prefix) is *BDTA*.

```
F BDTA I,C
```

Result:

```
BDT8639 ----- CELL POOL STATISTICS -----
BDT8639  ID  SIZE  TOTL  INUS  MXUS  DPLT  SDWNCT  STATUS  SUBPOOL
BDT8639  SAVE 0128 0160 0049 0132 0001 000000  NORMAL  010
BDT8639  OCMB 0256 0256 0000 0179 0000 000000  NORMAL  011
.
.
.
BDT8639 ----- IFC GETMAINED STORAGE -----
```


I,DSN

2. The status displayed is only for data sets at your BDT subsystem. If you want to see the status of data sets at a node in another BDT subsystem, you must use the SEND command to send this command to the other node.
3. You cannot use this command to display the status of data sets associated with callable dynamic application programs (DAPs) such as SNA.

Result

BDT issues this message for each data set or job requested:

```
BDT8631 job-no job-name {FROM|TO}
{ENQUEUED|DYNALLOC|ALLOCATED}
      {EXC|SHR} dsn
```

Examples

1. Display the status of all data sets for all active jobs. Use the JES3 prefix (*S,BDT).

```
*S,BDT,I,DSN
```

Result:

```
BDT8631 JOBNO JOBNAME DD    STATUS    CTL  DATA SET NAME
BDT8631 5678  WHSE01  FROM  ALLOCATED  SHR  WHSE.LAB.TOTAL
BDT8631 5679  PAY009  TO    ALLOCATED  EXC  PAY.PROD.ANNUAL
.
.
.
```

2. Using a prefix of BDT, display the status of all data sets for job WHSE01.

```
BDT,I,DSN,J=WHSE01
```

Result:

```
BDT8631 JOBNO JOBNAME DD    STATUS    CTL  DATA SET NAME
BDT8631 5678  WHSE01  FROM  ALLOCATED  SHR  WHSE.LAB.TOTAL
```

3. Using a prefix of BDT, display the status of data set JULY.INVENT.PARTS for all active jobs.

```
BDT,I,DSN=JULY.INVENT.PARTS
```

Result:

```
BDT8631 JOBNO JOBNAME DD    STATUS    CTL  DATA SET NAME
BDT8631 4567  WHSE01  FROM  ALLOCATED  SHR  JULY.INVENT.PARTS
BDT8631 4569  WHSE02  FROM  ALLOCATED  SHR  JULY.INVENT.PARTS
```

4. Using a prefix of BDT, display the status of data set JULY.INVENT.PARTS for the job WHSE01.

```
BDT,INQUIRY,DSN=JULY.INVENT.PARTS,J=WHSE01
```

Result:

```
BDT8631 JOBNO JOBNAME DD    STATUS    CTL  DATA SET NAME
BDT8631 4567  WHSE01  FROM  ALLOCATED  SHR  JULY.INVENT.PARTS
```

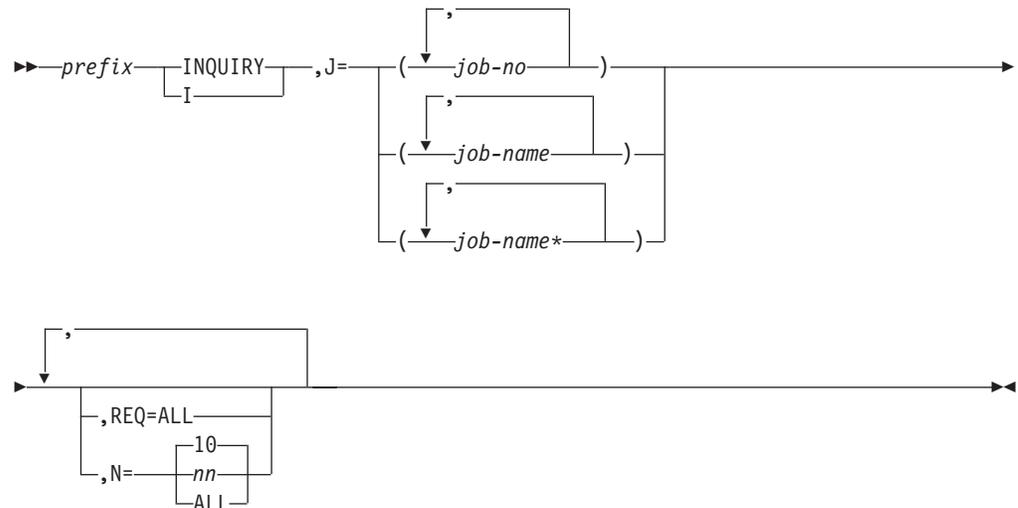
I,J — Display the Status of a Job on the BDT Work Queue

Purpose

Use this command to display the status of a job on the BDT work queue at your BDT subsystem.

The information displayed includes the job name, number, priority, node of origin, sending and receiving node and DAP, status at both the from and to nodes (queued, active, canceled, scheduled), hold status, DTC network ID and hold count, and whether the job has been rescheduled or canceled.

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

job-no

is the number of the job for which status is to be displayed. Each job has a unique job number.

job-name

is the name of the job for which status is to be displayed. If more than one job has the same name, status will be displayed for all jobs found with that name.

job-name*

specifies that all jobs whose names begin with the characters up to the asterisk (*) should be displayed.

REQ=ALL

displays the job's characteristics, such as DCB information. This information is the text units from the master job definition (MJD).

N=nn or ALL

specifies the number of jobs requested with `J=job-name` for which you want status displayed: `nn` jobs or ALL jobs. If you omit this parameter, 10 is assumed.

Usage Note

To display all the jobs on the work queue, use the I,Q command.

Results

BDT issues this message:

I,J

```
BDT8612 JOB job-no job-name, P=prty O=origin-node,  
  [from-node/dap] {(Q|A|C|S)} TO [to-node/dap]  
{(Q|A|C|S)}  
  [H=(OPR|,URS|,NET|TQI)][,NET=(net-id,hold-ct)]  
  [, {RESCH|CAN}]
```

For REQ=ALL, BDT also issues this message:

```
BDT8620 JOB job-no job-name {TO|FROM|GENERIC} KEY(text unit)
```

Examples

1. Using a prefix of BDT, display the status of job number 0056.

```
BDT,I,J=0056
```

Result:

```
BDT8612 JOB 0056 MYJOB, P=10 O=MYNOD, MYNOD/SEQ(A) TO  
XNODE/SEQ(A)
```

2. Using a prefix of BDT, display the status of the job or jobs named WHSE3.

```
BDT,INQUIRY,J=WHSE3
```

Result:

```
BDT8612 JOB 3456 WHSE3, P=10 O=ZNODE, ZNODE/PDS(Q) TO  
MYNOD/PDS(Q)
```

3. From a TSO terminal display the status of the first three jobs whose names begin with WHSE.

```
BDT,I,J=WHSE*,N=3
```

Result:

```
BDT8612 JOB 3456 WHSE1, P=10 O=ZNODE,  
ZNODE/SEQ(Q) TO MYNOD/SEQ(Q) H=(OPR)  
BDT8612 JOB 3460 WHSE2, P=10 O=ZNODE, ZNODE/SEQ(Q)  
TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)  
BDT8612 JOB 3462 WHSE3, P=10 O=ZNODE, ZNODE/SEQ(Q)  
TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)
```

4. Using a prefix of *S,BDT, display the status of all jobs whose names begin with WHSE.

```
*S,BDT,I,J=WHSE*,N=ALL
```

Result:

```
BDT8612 JOB 3456 WHSE01, P=10 O=ZNODE,  
ZNODE/SEQ(Q) TO MYNOD/SEQ(Q) H=(TQI)  
BDT8612 JOB 3460 WHSE02, P=10 O=ZNODE, ZNODE/SEQ(Q)  
TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)  
BDT8612 JOB 3462 WHSE03, P=10 O=ZNODE, ZNODE/SEQ(Q)  
TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)  
BDT8612 JOB 4078 WHSERT, P=08 O=MYNOD, MYNOD/PDS(A)  
TO KNODE/PDS(A)  
BDT8612 JOB 5119 WHSE40, P=07 O=MYNOD, MYNOD/SEQ(Q)  
TO BNODE/SEQ(Q)
```

5. Using a prefix of *S,BDT, display the text units information for job PDSA1.

```
*S,BDT,I,J=PDSA1,REQ=ALL
```

Result:

```
BDT8612 JOB 0044 PDSA1, P=04 O=SYSA1, SYSA1/PDS(Q)  
TO KNODE/PDS(Q) H=(,URS)  
BDT8620 BDTJOB 0044 PDSA1 FROM KEY(0002 SYS1.BDT51.INIT)  
BDT8620 BDTJOB 0044 PDSA1 FROM KEY(0004 08)  
BDT8620 BDTJOB 0044 PDSA1 GENERIC KEY(0102 BDTTEST,6,909)
```

```

BDT8620 BDTJOB 0044 PDSA1 TO KEY(0004 04)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0005 04)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0006 04)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(000A 000002)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0008)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(000C 00001B)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0049 90)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0030 0C30)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0042 0050)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0010 111111)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0015 3350)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0002 BDT5.TEST.SYSA2PDS)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(003C 0200)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0003 MSG=A)
BDT8620 BDTJOB 0044 PDSA1 FROM KEY(0004 08)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0004 08)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0004 01)

```

I,L — Display Session Status

Purpose

Use this command to display the status of a session and the node to which the session is connected. This command will not display the status of the node or nodes in your own BDT subsystem.

Format

```

▶▶—prefix—INQUIRY—,L=appl-id,STAT
I
ALL

```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

appl-id

is the ACF/VTAM application ID of the session for which status and node connection is to be displayed.

ALL

specifies that status and node information is to be displayed for all sessions connected to your BDT subsystem.

STAT

displays ACF/VTAM statistics for the session(s) requested.

Usage Note

To find the ACF/VTAM application ID for an active node, use the S,SNA,STATUS,LIST command.

Results

BDT issues this message for I,L=*appl-id*.

```
BDT8643 appl-id VTAM, {ONLINE|OFFLINE} , NODE IS node-name
```

BDT issues this message for I,L=*appl-id*,STAT:

```
BDT8647 appl-id CID=network-addr SEND=send-count
      RECV=receive-count
```

I,L

Examples

1. Using a prefix of *S,BDT, display the status of the session with *appl-id* of APPLA2.

```
*S,BDT,I,L=APPLA2
```

Result:

```
BDT8643 APPLA2 VTAM, ONLINE, NODE IS SYSA2
```

2. Using an F *id* prefix, display ACF/VTAM statistics for the session with *appl-id* of APPLA2. The identifier of BDT (for use in the prefix) is BDTA.

```
F BDTA INQUIRY,L=APPLA2,STAT
```

Result:

```
BDT8647 APPLA2 CID=1942FEID SEND=00000007 RECV=00000005
```

I,LOG — Display the BDT System Log Destination

Purpose

Use this command to display the destination of the BDT system log.

Format

```
▶▶—prefix—

|         |
|---------|
| INQUIRY |
| I       |

,LOG—▶▶
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG

specifies that the destination of the BDT system log is to be displayed.

Result

BDT issues this message:

```
BDT9921 PRIMARY SYSLOG DESTINATION(S) {[PRINT|JES|WTO]}
```

Example

Using a prefix of BDT, display the destination of the BDT system log.

```
BDT,I,LOG
```

Result:

```
BDT9921 PRIMARY SYSLOG DESTINATION(S) PRINT
```

I,NET — Display DTC Networks

Purpose

Use this command to display the network ID of every dependent transaction control (DTC) network at your BDT subsystem and the number of jobs within each network.

I,NET,ID

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET

specifies that jobs in a DTC network are to be displayed.

net-id

is the ID of the network containing the job or jobs for which status is to be displayed.

job-no

is the number of the job for which status is to be displayed.

job-name

is the name of the job for which status is to be displayed.

If you do not specify *job-no* or *job-name*, this command will display the status of all jobs in the network.

Usage Note

If you use more than one *net-id*, you may use only one *job-no* or *job-name*. If you use more than one *job-no* or *job-name*, you may use only one *net-id*.

Result

BDT issues this message for each job:

```
BDT8680 JOB job-no (job-name), NET=net-id, HC=hold-count
```

Examples

1. Using an F *id* prefix, display the status of all jobs in network ACCOUNTA. The BDT *id* is A1.

```
F A1 I,NET,ID=ACCOUNTA
```

Result:

```
BDT8680 JOB 7173 (JOB A), NET=ACCOUNTA, HC=001  
BDT8680 JOB 7174 (JOB B), NET=ACCOUNTA, HC=002  
BDT8680 JOB 7177 (JOB C), NET=ACCOUNTA, HC=002  
BDT8680 JOB 7180 (TOTL), NET=ACCOUNTA, HC=002
```

2. Using a prefix of BDT, display the status of job 7180 in network ACCOUNTA.

```
BDT,INQUIRY,NET,ID=ACCOUNTA,J=7180
```

Result:

```
BDT8680 JOB 7180 (TOTL), NET=ACCOUNTA, HC=002
```

3. Using a prefix of BDT, display the status of jobs JOBA and JOBB in network ACCOUNTA.

```
BDT,I,NET,ID=ACCOUNTA,J=(JOBA,JOBB)
```

Result:

```
BDT8680 JOB 7173 (JOB A), NET=ACCOUNTA, HC=001  
BDT8680 JOB 7174 (JOB B), NET=ACCOUNTA, HC=002
```

4. Using a prefix of BDT, display the status of all jobs in networks ACCOUNTA and ACCOUNTB.

```
BDT,I,NET,ID=(ACCOUNTA,ACCOUNTB)
```

Result:

I,NODE

- IJ1 through IJ7 — Inbound job streams 1-7 for SNA NJE.

Results

BDT issues this message for each node:

```
BDT8646 {FTF|NJE} node-name IS {ONLINE|OFFLINE|LOCAL}
```

BDT issues this message for each VLU on each session (or for the VLU used in the command):

```
BDT8645 {FTF|NJE} NODE node-name VLU vlu-name TYPE vlu-type
        VLU STATUS {ONLINE|OFFLINE}
{ALLOCATED|UNALLOCATED}
        {OPEN|CLOSED} {SEND MODE|RECEIVE MODE}.
```

Message BDT8645 will only include SEND MODE or RECEIVE MODE if the VLU is allocated.

For each file-to-file session, BDT also issues this message:

```
BDT8656 node-name FROM FENCE = nnn TO FENCE = mmm
```

The fields show the number of VLUs fenced in the “to” and “from” directions. (This message is not issued for NJE sessions.)

Examples

1. Using an F *id* prefix, display the status of node KGN01. The BDT identifier (for use with the prefix) is A1.

```
F A1 BDT,I,NODE=KGN01
```

Result:

```
BDT8646 FTF KGN01 IS LOCAL
BDT8656 KGN01 FROM FENCE 000 TO FENCE 000
BDT8645 FTF NODE KGN01 VLU 001 TYPE COM VLU STATUS
        ONLINE / ALLOCATED / CLOSED /
BDT8645 FTF NODE KGN01 VLU 002 TYPE XFR VLU STATUS
        ONLINE / UNALLOCATED / CLOSED /
        .
        .
        .
BDT8645 FTF NODE KGN01 VLU 004 TYPE XFR VLU STATUS
        ONLINE / UNALLOCATED / CLOSED /
```

2. Using a prefix of *S,BDT, display the status of VLU 001 on file-to-file node KGN01.

```
*S,BDT,INQUIRY,NODE=KGN01.001
```

Result:

```
BDT8646 FTF KGN01 IS LOCAL
BDT8656 KGN01 FROM FENCE 000 TO FENCE 000
BDT8645 FTF NODE KGN01 VLU 001 TYPE COM VLU STATUS
        ONLINE / ALLOCATED / CLOSED /
```

I,OPT — Display System Status

Purpose

Use this command to display the following information about the BDT subsystem:

- The date, type, and time of the last BDT restart

I,P

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

prty

displays the status of jobs of the indicated priority. The value for *prty* can be from 0 to 15. 15 is the highest priority and the first to be scheduled.

N=nn or ALL

specifies the number of jobs of the designated priority for which status is to be displayed: *nn* jobs or ALL jobs. If you do not specify this parameter, the first 10 jobs of the designated priority will be displayed.

Usage Note

You may need to be authorized to use N=ALL.

Result

BDT issues this message:

```
BDT8612 JOB job-no job-name, P=prty, {(Q|A|C|S)}  
        TO {(Q|A|C|S)} [H=(OPR|URS|,NET|TQI)],  
        [NET=net-id] [, {RESCH|CAN}]
```

Examples

1. Using a prefix of *S,BDT, display the status of the first five jobs of priority 04.

```
*S,BDT,I,P=04,N=5
```

Result:

```
BDT8612 JOB 3723 PAY3, P=04, (Q) TO (Q) H=(,NET),  
        NET=PAYALL  
BDT8612 JOB 4100 ADW22, P=04, (S) TO (Q)  
BDT8612 JOB 4670 DYD512, P=04, (Q) TO (Q) H=(TQI)  
BDT8612 JOB 1866 UBE235, P=04, (Q) TO (Q)  
BDT8612 JOB 2074 SJJ5054, P=04, (A) TO (A)
```

2. Using a prefix of *S,BDT, display the status of all jobs of priority 12.

```
*S,BDT,I,P=12,N=ALL
```

Result:

```
BDT8612 JOB 2280 PAY16, P=12, (Q) TO (Q) H=(,NET),  
        NET=PAYALL  
BDT8612 JOB 3984 9490ATL, P=12, (S) TO (Q)  
BDT8612 JOB 4008 DOB812, P=12, (Q) TO (Q) H=(OPR)  
BDT8612 JOB 4789 KGA5058, P=12, (Q) TO (Q)  
BDT8612 JOB 5096 PFM5091, P=12, (A) TO (A)
```

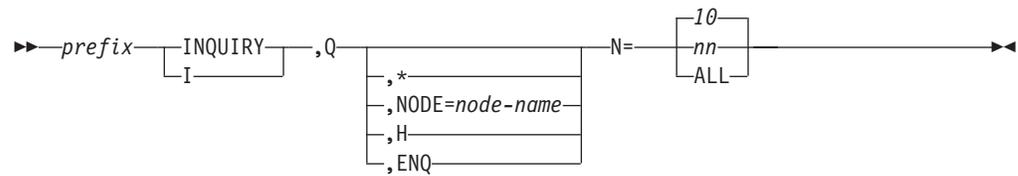
I,Q — Display the BDT Work Queue

Purpose

Use this command to display the jobs on the work queue at your BDT subsystem. The file-to-file jobs displayed will be the jobs for which your file-to-file node is the global node. Jobs will be displayed in order by priority, with the highest priority first.

The information displayed includes the job name, number, priority, status at both the from and to nodes (queued, active, canceled, scheduled), hold status, DTC network ID, and whether the job has been rescheduled or canceled.

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

Q specifies that jobs on the work queue at your BDT subsystem are to be displayed.

***** displays jobs for transactions submitted at your terminal or console.

NODE=node-name

displays jobs for transactions that transfer data between your BDT subsystem and *node-name*. For file-to-file jobs, *node-name* must be the local node.

H displays jobs that are being held on the BDT work queue. Possible reasons for a job being held are:

- The user entered the job in operator hold.
- The operator put the job in operator hold by using the MODIFY,J,H command.
- The job is in DTC network hold.
- The job is a file-to-file job submitted at the local node and it is still on the TQI checkpoint data set; the job is also on the work queue at the global node but the local node has not yet received confirmation of this.

ENQ

displays jobs being held in the BDT work queue because of a data set enqueue problem (the job is waiting for a data set that is already in use).

N=nn or ALL

specifies the number of jobs to be displayed: *nn* or ALL. If you do not specify this parameter, the first 10 jobs of the highest priority on the BDT work queue will be displayed.

Warning: Do not specify N=ALL or a large number for N=*nn* if doing so would generate a large volume of output. System performance will be affected if there are too many messages for your console to handle.

Usage Notes

1. You may need to be authorized by your installation to use N=ALL.
2. If you have both a file-to-file node and an NJE node at your BDT subsystem, your work queue will show NJE jobs before file-to-file jobs.

Results

BDT issues this message for each file-to-file job on the queue:

```

BDT8612 JOB job-no job-name, P=prty, {(Q|A|C|S)}
        TO {(Q|A|C|S)} [H=(OPR|URS|,NET|TQI)],
        [NET=net-id] [, {RESCH|CAN}]
  
```

BDT issues this message for each NJE job on the queue:

I,Q

```
BDT8612 JOB job-no job-name, P=prty, JESJOB jobnumber {(Q|A|C|S)}
TO {(Q|A|C|S)} [H=(OPR|URS|NET|TQI)],
[NET=net-id] [, {RESCH|CAN}]
```

Examples

1. Using a prefix of *S,BDT, display the first ten jobs (the default) on the BDT work queue.

```
*S,BDT,I,Q
```

Result:

```
BDT8612 JOB 0007 RUD10, P=02, JESJOB JOB00025, (Q) TO (S)
BDT8612 JOB 8755 RUD10, P=11, (A) TO (A)
BDT8612 JOB 8757 RUD12, P=11, (A) TO (A)
BDT8612 JOB 4433 PDSTW0, P=08, (Q) TO (Q)
.
.
.
BDT8612 JOB 7966 PROB3L, P=05, (Q) TO (Q)
```

2. Using a prefix of *S,BDT, display all jobs on the BDT work queue.

```
*S,BDT,INQUIRY,Q,N=ALL
```

Result:

```
BDT8612 JOB 0007 RUD10, P=02, JESJOB JOB00025, (Q) TO (S)
BDT8612 JOB 8755 RUD10, P=11, (A) TO (A)
BDT8612 JOB 8757 RUD12, P=11, (A) TO (A)
BDT8612 JOB 4433 PDSTW0, P=08, (Q) TO (Q)
.
.
.
BDT8612 JOB 8876 PROB6L, P=03, (Q) TO (Q)
```

3. Using an F *id* prefix, display the first eight jobs on the BDT work queue. The BDT *id* (for use with the prefix) is A1.

```
F A1 BDT,I,Q,N=8
```

Result:

```
BDT8612 JOB 0007 RUD10, P=02, JESJOB JOB00025, (Q) TO (S)
BDT8612 JOB 8755 RUD10, P=11, (A) TO (A)
BDT8612 JOB 8757 RUD12, P=11, (A) TO (A)
BDT8612 JOB 4433 PDSTW0, P=08, (Q) TO (Q)
.
.
.
BDT8612 JOB 6556 PROB2L, P=04, (Q) TO (Q)
```

4. Display the jobs submitted at this TSO terminal.

```
BDT,I,Q,*,N=ALL
```

Result:

```
BDT8612 JOB 1234 MYJOB01, P=04, (A) TO (A)
BDT8612 JOB 1256 MYJOB02, P=04, (Q) TO (Q)
BDT8612 JOB 1290 MYJOB03, P=05, (Q) TO (Q)
```

5. Display the first 25 jobs for transactions between your BDT subsystem and node SPK02. Use the JES3 prefix (*S,BDT).

```
*S,BDT,I,Q,NODE=SPK02,N=25
```

Result:

```
BDT8612 JOB 2039 MYJOB10, P=08, (Q) TO (Q) H=OPR
BDT8612 JOB 5986 HISJOB4, P=07, (Q) TO (Q)
BDT8612 JOB 7983 TOPJOB0, P=07, (S) TO (Q)
```

```
·
·
·
```

```
BDT8612 JOB 8039 OUTJOB1, P=06, (Q) TO (Q) H=,URS
```

6. Using a prefix of *S,BDT, display the jobs in hold status.

```
*S,BDT,INQUIRY,Q,H
```

Result:

```
BDT8612 JOB 2039 MYJOB10, P=08, (Q) TO (Q) H=(TQI)
BDT8612 JOB 8945 ONEJOB, P=07, (Q) TO (Q) H=(OPR,NET)
NET=NETONE
BDT8612 JOB 8950 TWOJOB, P=06, (Q) TO (Q) H=(OPR,NET)
NET=NETTWO
```

7. Using a prefix of BDT, display the jobs in hold status because of a data set enqueue problem.

```
BDT,I,Q,ENQ
```

Result:

```
BDT8612 JOB 8676 THISJOB, P=04, (Q) TO (Q), H=(,URS)
```

I,QS — Display BDT Work Queue Information

Purpose

Use this command to display information about available space on the BDT work queue at your BDT subsystem.

Format

```
▶▶ prefix INQUIRY ,QS ◀◀
    |_____|
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

QS

specifies that information about available space on the BDT work queue is to be displayed.

Result

BDT issues this message:

```
BDT8667 BLKSIZE=nnnnn, BLOCKS=nnnnn, AVAIL=nnnnn,
nn% SPACE REMAINING
```

Example

Using a prefix of *S,BDT, display information about available space on the BDT work queue.

```
*S,BDT,I,QS
```

Result:

I,R — Display Operator-Action Messages

Purpose

Use this command to display outstanding operator-action messages.

Format

```
▶▶ prefix INQUIRY I ,R ▶▶
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

R specifies that outstanding operator-action messages are to be displayed.

Result

BDT displays all outstanding operator-action messages.

Example

Using an *F id* prefix, display outstanding operator-action messages. The identifier of BDT (for use in the prefix) is BDTX.

```
F BDTX I,R
```

Result:

```
BDT8627 NO ACTION MESSAGES PRESENTLY OUTSTANDING
```

I,X,FCT — Display Statistics for BDT Modules by FCT Name

Purpose

Use this command to display statistics for modules loaded by a particular function control table (FCT), or to display statistics for all modules loaded by FCTs.

Format

```
▶▶ prefix INQUIRY I ,X,FCT=fct-name ALL ▶▶
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

X is required.

fct-name

is the name of the FCT that loads the modules for which statistics are to be displayed.

ALL

requests statistics for all modules loaded by FCTs.

Result

BDT issues this message:

```
BDT8622 module EPA-entry-pt USE-use-ct ATTR-attrflg
        RBP-rbptr FCT-dap
```

If the requested FCT did not load any modules, BDT issues this message:

```
BDT8624 NO MODULES LOADED BY FCT fct-name
```

Examples

- Using a prefix of BDT, display statistics for all modules loaded by FCTs.

```
BDT,I,X,FCT=ALL
```

Result:

```
BDT8624 NO MODULES LOADED BY FCT TIMER
BDT8624 NO MODULES LOADED BY FCT COMMGR
BDT8622 IGG019KU EPA-00F7C000 USE-000A ATTR-B122
        RBP-00000000 FCT-MSDV
BDT8622 IGG019JA EPA-00A63BD8 USE-000A ATTR-B122
        RBP-00000000 FCT-MSDV
BDT8622 IGG019LI EPA-00F7C3F8 USE-000A ATTR-B122
        RBP-00000000 FCT-MSDV
BDT8622 IGG019KA EPA-00B66000 USE-000A ATTR-B122
        RBP-00000000 FCT-MSDV
        .
        .
        .
        .
BDT8622 BDTUX07 EPA-001E1DD8 USE-0001 ATTR-1322
        RBP-00000000 FCT-WAIT
```

- Using a prefix of BDT, display statistics for modules loaded by the TIMER FCT.

```
BDT,I,X,FCT=TIMER
```

Result:

```
BDT8624 NO MODULES LOADED BY FCT TIMER
```

I,X,M — Display Statistics for BDT Modules by Module Name**Purpose**

Use this command to display statistics for the module you specify, or for all modules.

Format

```
▶▶ prefix INQUIRY ,X,M=mod-name
I ALL ▶▶
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

X is required.

I,X,M

mod-name

is the name of the module for which statistics are to be displayed.

ALL

displays statistics for all active modules.

Result

BDT issues this message:

```
BDT8622  mod-name EPA-entry-pt USE-use-ct ATTR-attrflg
        RBP-rbptr
```

Example

Using a prefix of BDT, display statistics for module BDTSNA.

```
BDT,INQUIRY,X,M=BDTSNA
```

Result:

```
BDT8622 BDTSNA  EPA-00293B40 USE-0001 ATTR-0323 RBP-00000000
```

JES — Submit a JES3 Command from BDT

Purpose

Use this command to direct a JES3 command from BDT to the JES3 system in the same complex.

Format

▶▶ *prefix* — JES — *jes3-command* —▶▶

prefix

is the prefix.

jes3-command

is the JES3 command you want to submit. Use only the following JES3 commands:

1. VARY, or V
2. MODIFY, or F
3. INQUIRY, or I
4. MESSAGE, or Z

Do not include the JES3 identifier with the JES3 command. The JES3 identifier precedes JES3 commands; it is usually an * or an 8. For example, use I,Q and not *I,Q.

Usage Notes

1. Use this command only for JES3. It is not applicable in a JES2 complex.
2. Your installation may require a password on this command.
3. When you use this command your terminal appears to JES3 to be a remote job processing (RJP) terminal.

Result

You will receive JES3 messages at your terminal in response to this command.

Example

Display all jobs in the JES3 job queue that originated from the BDT system SPK01.
 BDT JES,INQUIRY,Q,NODE=SPK01

Result:

```
BDT8612 JOB 2039 MYJOB10, P=08, (Q) TO (Q) H=OPR
BDT8612 JOB 5986 HISJOB4, P=07, (Q) TO (Q)
BDT8612 JOB 7983 TOPJOB0, P=07, (S) TO (Q)
.
.
.
BDT8612 JOB 8039 OUTJOB1, P=06, (Q) TO (Q) H=,URS
```

R,SNA,NODE — Restart a Session

Purpose

Use this command to establish communication between a node at your BDT subsystem and another node, and to turn on the automatic session restart (ASR) function.

If the session fails (for example, an ACF/VTAM error occurs on the line) ASR will try to restart the session.

Format

```
▶▶ prefix RESTART R ,SNA,NODE=node-name ▶▶
```

prefix

is the prefix that is appropriate for your terminal or console. Do not use a prefix when submitting commands in a batch job.

SNA

specifies that SNA communication is to be established.

node-name

is the name of the node with which you want to establish communication. Use only one *node-name* in this command.

Usage Note

You must be authorized to use this command.

Results

ASR is enabled for the session.

If the session is already active, BDT issues this message:

```
BDT 2806 SESSION WITH node-name (appl-id) IS ALREADY ACTIVE
```

If the session is not already active, BDT issues this message:

```
BDT2860 SESSION START REQUESTED FOR node-name (appl-id)
```

BDT also issues the messages that appear in response to the START command.

R,SNA,NODE

BDT establishes a SNA session with *node-name*.

Example

Using an *F id* prefix, start the session to node NPZ01 with ASR active. The BDT *id* is A1.

```
F A1 R,SNA,NODE=NPZ01
```

Result:

```
BDT2860 SESSION START REQUESTED FOR NPZ01 (APPLN1)
```

RETURN — Terminate BDT

Purpose

Use this command to terminate the BDT address space.

Format

```
▶▶—prefix—RETURN—————▶▶
```

prefix

Is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

Usage Notes

1. You must be authorized to use this command.
2. In JES3 systems you must vary JES3 offline before stopping BDT. Use the V,JES3,OFF command to vary JES3 offline.
3. Instead of the BDT RETURN command you can use the MVS STOP *bdt-proc* command to stop BDT.
4. After you issue the BDT RETURN or MVS STOP command you can check the status of the termination process by reissuing RETURN or STOP. This does not speed termination, but it does display the number of DAPs pending termination. The number should be less each time you enter RETURN or STOP. If the number does not change for a long time, and BDT seems to be stuck, you can use the MVS CANCEL command to terminate BDT abnormally and request a dump: CANCEL *bdt-proc*,DUMP.
5. To cancel individual BDT sessions without terminating BDT, use the C,SNA or V command.

Results

BDT does not issue a message.

BDT terminates without a dump.

BDT:

- Fails all transactions currently active and deallocates their data sets.
- Terminates all DAPs with a completion code of BD033.

- Suspends TQI to prevent the processing of new work while termination is in progress. (This command suspends TQI in the same way as the S,TQI,SUSPEND command.) Any new work that enters BDT and attempts to bypass TQI will be rejected.

Example

Using a prefix of *S,BDT, terminate BDT.

```
*S,BDT,RETURN
```

S,SNA,LIMIT — Change the Concurrent Session Limit

Purpose

Use this command to change the limit of the number of sessions that are allowed to be active at the same time at your BDT subsystem.

Format

```
▶▶ prefix START ,SNA,LIMIT=num ▶▶
```

└──┬──┘
S

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

is required.

num

is the maximum number of sessions that can be active at any one time at your BDT subsystem. The value for *num* can be from 0 to 999. If you have both file-to-file and NJE at your BDT subsystem, the number of sessions at your BDT subsystem is the number of file-to-file sessions and the number of NJE sessions combined.

Usage Note

This command does not affect the number of VLUs active on any one session, but limits the total number of sessions in which your BDT subsystem can participate.

Results

BDT changes the concurrent session limit to the new value.

BDT issues this message:

```
BDT2818 SNA MANAGER ACTIVE: SESSIONS=nnnn LIMIT=nnnn
```

Example

Using an F *id* prefix, change the limit of concurrent sessions for your BDT subsystem to 15. The identifier of BDT (for use in the prefix) is A1.

```
F A1 S,SNA,LIMIT=15
```

Result:

```
BDT2818 SNA MANAGER ACTIVE: SESSIONS=0001 LIMIT=015
```

S,SNA,LOG=?

S,SNA,LOG=? — Display the Destination of the SNA Manager Log

Purpose

Use this command to display the destination of the SNA manager log.

Format

►► *prefix* — START — S — ,SNA,LOG=? —————►►

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies the BDT SNA manager log.

LOG=?

displays the destination (console or other device) of the BDT SNA manager log.

Usage Notes

1. You must be authorized to use this command.
2. To display the destination of the BDT system log, use the I,LOG command.

Result

BDT issues this message:

BDT2867 SNA MANAGER IS LOGGING TO node-name sys-name type name

Example

Using an *F id* prefix, display the destination of the BDT SNA manager log. The identifier of BDT (for use in the prefix) is BDTA.

F BDTA S,SNA,LOG=?

Result:

BDT2867 SNA MANAGER IS LOGGING TO SPK01 SY2 JES CN02

S,SNA,LOG — Change the Destination of the SNA Manager Log (File-to-File Feature Only)

Purpose

Use this command to route the BDT SNA manager log to a different file-to-file destination.

Format

►► *prefix* — START — S — ,SNA,LOG=(*node-name,sys-name,type,name*) —————►►

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies the BDT SNA manager log.

node-name

is the name of the file-to-file node to which the log is to be routed.

sys-name

is the identifier of the processor to which the log is to be routed (1 to 8 characters).

type

is the identifier of the type of console to which the log is to be routed (3 to 5 characters):

- TSO — TSO user
- JES — JES3 console
- MCS — MCS console
- JMC — JES3 console destination class.

name

is the name of the console to which the log is to be routed (1 to 8 characters):

- User ID for a TSO user
- Console name for a JES3 console
- Console name for an MCS console
- JES3 message class name.

Usage Notes

1. For a description of JES3 console destination classes, see *z/OS JES3 Commands*.
2. To change the destination of the BDT system log, use the F,LOG,ADEST or F,LOG,SYSLOG command.

Result

BDT issues this message:

```
BDT2867 SNA MANAGER IS NOW LOGGING TO node-name,sys-name,
      type,name
```

Example

Using a prefix of *S,BDT, route the BDT SNA manager log to JES3 console CN10 at node SPK01, system SY2.

```
*S,BDT,S,SNA,LOG=(SPK01,SY2,JES,CN10)
```

Result:

```
BDT2867 SNA MANAGER IS NOW LOGGING TO SPK01,SY2,JES,CN10
```

S,SNA,NODE — Start a Session

Purpose

Use this command to start a session, that is, to establish the networking connection between a node at your BDT subsystem and another node.

S,SNA,NODE

Note: This command does not start the automatic session restart (ASR) function. To start a session with ASR turned on, use the RESTART,SNA command.

Format

►► *prefix* — START —,SNA,NODE=*node-name* —►►
└──┬──┘
 S

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies that a session is to be started.

node-name

is the node with which you want to start a session. Use only one *node-name* in this command.

Usage Notes

1. You must be authorized to use this command.
2. This command does not affect the automatic session restart (ASR) function. ASR remains on or off according to the last command that affected it (for example, C,SNA, or RESTART,SNA).
3. If you use the START,SNA,NODE command to start a session and then decide that you also want ASR to be on, you can use the RESTART,SNA command to turn on ASR. You do not need to cancel the session to do this.

Results

BDT issues these messages:

```
BDT2860 SESSION START REQUESTED FOR node-name (appl-id)
BDT2820 SCIP SESSION BIND REQUESTED FOR node-name (appl-id),
        TYPE={FTF|NJE}
BDT2822 LOGON IN PROGRESS FOR node-name (appl-id)
BDT2820 SCIP SESSION BIND REQUESTED FOR node-name (appl-id),
        TYPE={FTF|NJE}
BDT2802 SESSION ESTABLISHED WITH node-name (appl-id),
        TYPE={FTF|NJE}
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

When the command is issued at a file-to-file node, BDT also issues this message:

```
BDT2831 NEGOTIATED BDT SESSION PARAMETERS FOR
        node-name (appl-id) ARE (VLU=nn,BUFNO=nn,BUFSZ=nn,CS=opt)
```

When the command is issued at an NJE node, BDT also issues these messages:

```
BDT2878 SNA SESSION ESTABLISHED WITH NODENAME (appl-id),
        TYPE=NJE
BDT2884 SNA SESSION ESTABLISHED WITH node-name (appl-id),
        TYPE=NJE
BDT2877 node-name (appl-id) BUFSZ=nnnn, SNA
        TERMINATION EXTENSION = YES
```


S,SNA,STATUS,LIST

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies the BDT SNA manager.

STATUS or STAT or ST

displays the status of the BDT SNA manager.

LIST or L

displays a list of active sessions by node name and ACF/VTAM application ID, and indicates whether each is file-to-file or NJE.

Usage Notes

1. You must be authorized to use this command.
2. To display the status of a single session, use the I,L command.

Results

BDT issues this message for each communication type (file-to-file or NJE) that is active in your BDT subsystem:

```
BDT2918 SNA MANAGER {FTF|NJE} COMMUNICATION
        {ACTIVE|QUIESCED}
```

BDT then issues this message:

```
BDT2818 SNA MANAGER {ACTIVE:|PENDING TERMINATION:}
        SESSIONS=nnnn LIMIT=mmmm
```

For LIST, BDT also issues this message for each active session:

```
BDT2825 node-name (appl-id) IS ACTIVE, TYPE={NJE|FTF}
```

Examples

1. Using a prefix of *S,BDT, display the status of the BDT SNA manager and the number of active sessions.

```
*S,BDT,S,SNA,STAT
```

Result:

```
BDT2918 SNA MANAGER NJE COMMUNICATION ACTIVE
BDT2818 SNA MANAGER ACTIVE: SESSIONS=0096 LIMIT=0150
```

2. Using an F *id* prefix, display the status of the BDT SNA manager and list all active sessions. The identifier of BDT (for use in the prefix) is A1.

```
F A1 SNA,STAT,LIST
```

Result:

```
BDT2918 SNA MANAGER NJE COMMUNICATION ACTIVE
BDT2818 SNA MANAGER ACTIVE: SESSIONS=0096 LIMIT=0150
BDT2825 SPK01 (APPLK1) IS ACTIVE, TYPE=NJE
BDT2825 SPK02 (APPLK2) IS ACTIVE, TYPE=NJE
BDT2825 SPK03 (APPLK3) IS ACTIVE, TYPE=NJE
      .
      .
      .
BDT2825 SPK05 (APPLK3) IS ACTIVE, TYPE=NJE
```

S,TQI,DELAY — Change the Read Checkpoint Interval

Purpose

Use this command to change the time interval at which BDT reads from the TQI checkpoint data set looking for work to do.

Format

```
▶▶—prefix—START—,TQI,DELAY=secs—▶▶
      |_____|
      S
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

TQI

specifies that the time interval at which BDT reads from the checkpoint record is to be changed.

secs

is the time interval in seconds. *secs* may be from 1 to 99999.

Result

BDT issues this message:

```
BDT2222 TQI TIME DELAY CHANGED TO nnnnn SECONDS
```

Example

Using an F *id* prefix, change the read checkpoint interval to 45 seconds. The ID of the BDT system (for use with the prefix) is A1.

```
F A1 S,TQI,DELAY=45
```

Result:

```
BDT2222 TQI TIME DELAY CHANGED TO 00045 SECONDS
```

S,TQI,SUSPEND, or RESTART — Control BDT's Access to the TQI Checkpoint Data Set

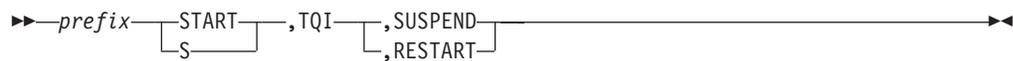
Purpose

Use this command to:

- Prevent BDT from reading commands and transactions recorded on the TQI checkpoint data set. You might do this when BDT has problems reading commands and transactions. You will be notified of BDT problems by message BDT2217, or your system programmer.
- Allow BDT to read commands and transactions recorded on the TQI checkpoint data set. You might do this once the problem has been corrected. Your system programmer will tell you when to issue this command.

S,TQI,SUSPEND or RESTART

Format



prefix

is the prefix that is appropriate for your terminal or console. Do not use a prefix when entering commands in a batch job.

TQI

specifies the TQI checkpoint data set.

SUSPEND

prevents BDT from reading commands or transactions recorded on the TQI checkpoint data set.

RESTART

allows BDT to read commands and transactions recorded on the TQI checkpoint data set.

To use the S,TQI,RESTART command, you must be at a JES3 console or at the MCS console for the processor on which the TQI address space exists.

- At the MCS console, use one of these prefixes when entering S,TQI,RESTART:

bdt-char
BDT,*node-name*
F [*bdtproc.*]*bdt-id*

At a JES3 console, submit S,TQI,RESTART in this format:

```
*SENDprocessor Fbdt-id,START,TQI,RESTART
```

If you have user exit routine BDTUX10 at your installation, and you have the password that is required, you can also enter S,TQI,RESTART in this format:

```
F [bdtproc.]bdt-id,S(password),TQI,RESTART
```

Usage Notes

1. You can use the S,TQI,SUSPEND command from either an MCS or JES3 console, or a TSO terminal that can submit commands.
2. Once you have used the S,TQI,SUSPEND command, use the MODIFY (F) prefix on all commands to make the commands bypass TQI until you restart reading from the TQI checkpoint data set. Use

```
MODIFY [bdt-proc.]id  
command  
or
```

```
F [bdt-proc.]id command
```

where *bdt-proc* is the name of the cataloged procedure in SYS1.PROCLIB used to start BDT, and *id* is the installation-defined BDT identifier. Any other prefix will cause the command to be recorded on the TQI checkpoint data set; since BDT will not be reading the data set, the command will not be executed.

S,TQI,SUSPEND or RESTART

3. If you are going to suspend reading from the TQI checkpoint data set for a long time, you may also want to stop TQI's recording of commands and transactions. Use the F TQI,D command.
 - If TQI is not required in your installation, this will make the commands and transactions go directly to BDT without being recorded by TQI. The users will have lost the protection of having their transactions recorded, but their transactions can be processed.
 - If TQI is required in your installation, disabling BDT TQI will cause transactions to be rejected. However, you will still be able to submit commands using the MVS MODIFY or F prefix.

If you are going to suspend reading from the TQI checkpoint data set for a short time, you probably don't need to disable TQI. Transactions will continue to be recorded on the TQI checkpoint data set, and will be read when TQI is enabled. Users still have the protection of TQI, but the transactions won't be processed until the TQI address space is enabled and reading is restarted.

Results

For SUSPEND, BDT stops reading commands and transactions recorded on the TQI checkpoint data set.

BDT issues this message for SUSPEND:

```
BDT2220 TQI SUSPENDED
```

For RESTART, BDT resumes reading commands and transactions recorded on the TQI checkpoint data set.

BDT issues this message for RESTART:

```
BDT2221 TQI RESTARTED
```

Examples

1. Using a prefix of *S,BDT, stop BDT from reading commands and transactions from the TQI checkpoint data set.
*S,BDT,S,TQI,SUSPEND

Result:

```
BDT2220 TQI SUSPENDED
```

2. Using an F *id* prefix, allow BDT to resume reading commands and transactions from the TQI checkpoint data set for the BDT subsystem with the ID of A1.
F A1,START,TQI,RESTART

Result:

```
BDT2221 TQI RESTARTED
```

3. Using a prefix of *S,BDT, allow BDT to resume reading commands and transactions from the TQI checkpoint data set for the BDT subsystem with the ID of A1 on processor SY1.
*SEND SY1 F A1,S,TQI,RESTART

Result:

```
BDT2221 TQI RESTARTED
```

T — Send a Command to Another BDT Node (Requires File-to-File Feature)

Purpose

Use this command to direct a BDT command from one file-to-file node to another file-to-file node.

Format

```
▶▶ prefix SEND ,node-name,bdt-command▶▶
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name

is the name of the file-to-file node to which you want to send the command.

bdt-command

is the BDT command you want to send.

Usage Notes

1. You cannot use the SEND command to send another SEND command. You can use it to send any other BDT command, including the JES command.
2. If a session terminates before the SEND command is processed, the command will not execute and will be discarded. When this happens there is no notification from the system.

Result

You will receive any responses at your console.

Example

Using a prefix of BDT, display the jobs that are active at node SYSA1.

```
BDT,SEND,SYSA1,I,A
```

Result:

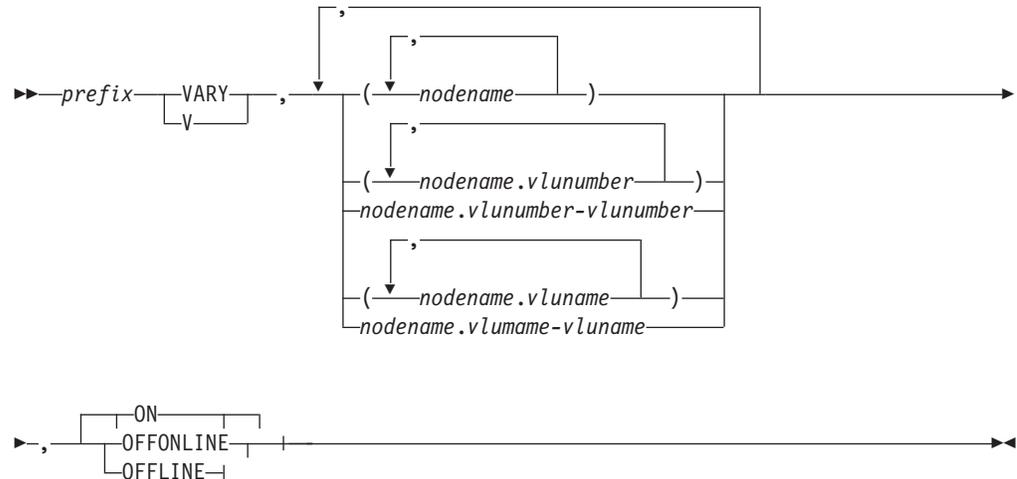
BDT8672	BDTJOB	JOBNAME	JESJOB	DAP	FROM	TO	ELAPSED	CPU TIME	BYTES
BDT8673	0166	PAY005		SEQ	SYSA1	SYSA2	00 00 12	00000.20	24587
BDT8673	2101	TOPJOB		SEQ	SYSA1	SYSA2	01 28 16	00006.30	01307K
BDT8673	3656	LOWJOB		PDS	SYSA1	SYSA2	00 42 13	00000.74	13815
	.								
	.								
BDT8673	8397	BDTJOB		PDS	SYSA1	SYSA2	00 09 26	00000.60	00145K

V — Control a Session Using VLUs

Purpose

Use this command to control a BDT session between your node and another node by controlling the virtual logical units (VLUs) between the nodes. You can stop data from flowing on selected VLUs or you can stop data from flowing on all VLUs (except the communication VLU).

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name

is the name of a node with which your node is connected by a BDT session. If it is a file-to-file node, it must be local to your file-to-file node.

V,node-name,ON and *V,node-name,OFF* vary all VLUs in the session with *node-name* except the communication VLU. *V,node-name,OFF* does not cancel the session.

vlunumber

is the number of a file-to-file VLU to be varied. The numbers of the file-to-file VLUs you can vary are three-digit numbers from 002 through 255. Do not vary off the communication VLU (the communication VLU is number 001). Doing so would prevent BDT from using any other VLUs to that node. By leaving the communication VLU online, you permit the communication of commands and messages to continue between your node and *node-name*.

Vary a range of VLU numbers by specifying *vlunumber-vlunumber*.

vluname

is the name of an NJE VLU to be varied. The NJE VLU is at your node and is used in a session with *node-name*. VLU names are:

- OS1 through OS7 — Outbound SYSOUT streams 1-7 for SNA NJE
- IS1 through IS7 — Inbound SYSOUT streams 1-7 for SNA NJE
- OJ1 through OJ7 — Outbound job streams 1-7 for SNA NJE
- IJ1 through IJ7 — Inbound job streams 1-7 for SNA NJE.

V

Vary a range of VLU names by specifying *vluname-vluname*. The VLUs must all be of the same type: OS, IS, OJ, or IJ.

ON or ONLINE

allows data to flow.

OFF or OFFLINE

stops data from flowing. Data transfers in progress will be allowed to complete; no new data transfers will be allowed.

Usage Notes

1. For more information on VLUs, see *z/OS BDT Overview*
2. If you vary inbound NJE VLUs offline at your NJE node, the corresponding outbound NJE VLUs at the other node in the session will automatically be varied offline if someone at the other node attempts to transfer data using those VLUs. If that happens, the VLUs at both nodes must be varied online before communication can be resumed.
3. If you don't want to wait for data transfers to complete, you may want to cancel the session with the node (see the C,SNA command).
4. You may vary a range of VLUs that extends beyond the VLUs defined. Those VLUs that are defined will be varied.
5. Varying a VLU does not affect the direction in which the VLUs can transfer data.
6. There is a limit to the number of transfers that can be active in your BDT subsystem at any one time. (The limit is set by the system programmer at initialization and can be changed with the S,SNA,LIMIT command.) There can be more VLUs available than are allowed to be active at the same time. When one transfer finishes, BDT will choose the next VLU to become active according to the priority of jobs on the work queue and the availability of other requirements, such as the data sets involved. By varying off a number of VLUs to some nodes, and varying on more VLUs to other nodes, you can make BDT send or receive more transfers with the selected nodes.
7. To find out which VLUs are online and offline now, and how many are defined for a session, use the I,NODE command.

Results

Communication is allowed (ON) or prevented (OFF).

BDT issues this message for each VLU that is varied:

```
BDT8703 {FTF|NJE} NODE node-name {vluname|vlunumber} VARIED
        {ONLINE|OFFLINE} SESSION IS {ACTIVE|INACTIVE}
```

For VARY,*node-name*,OFF, transactions in progress on the session may or may not complete and may or may not restart if interrupted. The session (all VLUs to the node) is varied offline.

For VARY,*vlunumber*,OFF or VARY,*vluname*,OFF the current activity on the VLU is allowed to complete; once that activity has completed, BDT will not use the VLU.

Varying a VLU affects only the ability of data to flow between nodes; the SNA connection status is not changed.

Examples

1. A file-to-file session exists between the file-to-file node at your BDT subsystem and node DAL03. Using an F *id* prefix, prevent communication between the file-to-file node at your BDT subsystem and node DAL03. The BDT *id* (for use in the prefix) is BDT1.

```
F BDT1 V,DAL03,OFF
```

Result:

```
BDT8703 FTF NODE DAL03 002 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE DAL03 003 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE DAL03 004 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE DAL03 005 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE DAL03 006 VARIED OFFLINE SESSION IS INACTIVE
.
.
.
BDT8703 FTF NODE DAL03 254 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE DAL03 255 VARIED OFFLINE SESSION IS INACTIVE
```

2. Resume communication between your file-to-file node and node DAL03.

```
F BDT1 VARY,DAL03,ON
```

Result:

```
BDT8703 FTF NODE DAL03 002 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE DAL03 003 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE DAL03 004 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE DAL03 005 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE DAL03 006 VARIED ONLINE SESSION IS ACTIVE
.
.
.
BDT8703 FTF NODE DAL03 254 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE DAL03 255 VARIED ONLINE SESSION IS ACTIVE
```

3. An NJE session exists between the NJE node at your BDT subsystem and the node KGN01. Using a prefix of *S,BDT, prevent communication between the NJE node at your BDT subsystem and the node KGN01.

```
*S,BDT,V,KGN01,OFF
```

Result:

```
BDT8703 NJE NODE KGN01 OS1 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 NJE NODE KGN01 OS2 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 NJE NODE KGN01 OS3 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 NJE NODE KGN01 OS4 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 NJE NODE KGN01 OS5 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 NJE NODE KGN01 OS6 VARIED OFFLINE SESSION IS INACTIVE
.
.
.
BDT8703 NJE NODE KGN01 IJ6 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 NJE NODE KGN01 IJ7 VARIED OFFLINE SESSION IS INACTIVE
```

4. Your node (KGN01) is connected to five other nodes (KGN02, KGN03, KGN04, KGN05, KGN06) The maximum transfer limit is 100. Each session to another node has 50 VLUs defined but only 20 online. KGN01 has many transfers queued for KGN02 but only a few for the other nodes.

To reduce the backlog of jobs for KGN02, you need to vary on more VLUs for KGN02, and vary off some VLUs for the other nodes. Remember to vary online from the first offline VLU upwards, and offline from the high end of the range of online VLUs. Use the JES3 prefix (*S,BDT).

V

```
*S,BDT,VARY,KGN02.021-050,ON
*S,BDT,VARY,(KGN03.010-019,KGN04.010-019,KGN05.010-019,
KGN06.010-019),OFF
```

Result:

```
BDT8703 FTF NODE KGN02 021 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE KGN02 022 VARIED ONLINE SESSION IS ACTIVE
.
.
BDT8703 FTF NODE KGN02 050 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE KGN03 010 VARIED OFFLINE SESSION IS INACTIVE
.
BDT8703 FTF NODE KGN03 019 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE KGN04 010 VARIED OFFLINE SESSION IS INACTIVE
.
BDT8703 FTF NODE KGN04 019 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE KGN05 010 VARIED OFFLINE SESSION IS INACTIVE
.
.
BDT8703 FTF NODE KGN05 019 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE KGN06 010 VARIED OFFLINE SESSION IS INACTIVE
.
.
BDT8703 FTF NODE KGN06 019 VARIED OFFLINE SESSION IS INACTIVE
```

5. Using a prefix of *S,BDT, remove VLU 003 from use in the session with node SPK01.

```
*S,BDT,V,SPK01.003,OFFLINE
```

Result:

```
BDT8703 FTF NODE SPK01 003 VARIED OFFLINE SESSION IS INACTIVE
```

6. Using a prefix of *S,BDT, bring VLUs 004 and 005 into use in the session with node SPK01.

```
*S,BDT,V,SPK01.004-005,ON
```

Result:

```
BDT8703 FTF NODE SPK01 004 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE SPK01 005 VARIED ONLINE SESSION IS ACTIVE
```

7. Using an F *id* prefix, remove VLUs 004 and 006 from use in the session with node SPK02, and remove VLUs 005 through 008 from use in the session with node MCR10. The *id* of BDT (for use in the prefix) is BDTA.

```
F BDTA V,(SPK02.004,SPK02.006,MCR10.005-008),OFF
```

Result:

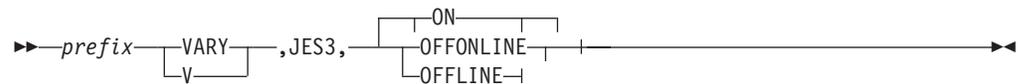
```
BDT8703 FTF NODE SPK02 004 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE SPK02 006 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 005 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 006 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 007 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 008 VARIED OFFLINE SESSION IS INACTIVE
```

V,JES3 — Control the JES3 to BDT Interface

Purpose

Use this command to allow or prevent JES3 from sending commands, file-to-file transactions, and NJE transactions to BDT.

Format



prefix

is the prefix. Do not use a prefix when submitting commands in a batch job.

JES3

is the interface between JES3 and BDT.

ON or ONLINE

allows JES3 to send commands and transactions to BDT. This is the default.

OFF or OFFLINE

prevents JES3 from sending commands or transactions to BDT.

Usage Notes

1. To suspend or resume communication from JES3 to BDT for NJE only, use the F,JES3 command.
2. If NJE transactions have been suspended from JES3 to BDT (see F,JES3 command), the V,JES3,ONLINE command will allow suspended NJE transactions to resume.
3. You might want to issue this command before doing a JES3 dynamic system interchange (DSI). Your system programmer will tell you if it is necessary.
4. This command has no effect in a JES2 complex.

Result

BDT issues this message:

```
BDT9967 JES3 INTERFACE VARIED {ONLINE|OFFLINE}
```

Examples

1. Using a prefix of *S,BDT, prevent JES3 from sending commands or transactions to BDT.

```
*S,BDT,V,JES3,OFF
```

Result:

```
BDT9967 JES3 INTERFACE VARIED OFFLINE
```

2. Allow JES3 to send commands and transactions to BDT.

```
*S,BDT,V,JES3,ON
```

Result:

```
BDT9967 JES3 INTERFACE VARIED ONLINE
```

X,SNA — Activate the BDT SNA Manager

Purpose

Use this command to activate the BDT SNA manager for your BDT subsystem. You need to activate the BDT SNA manager in order to establish sessions.

X,SNA

Format



prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies that the BDT SNA manager is to be activated.

Usage Notes

1. You must be authorized to use this command.
2. Use X,SNA when doing a cold start of BDT, or when doing a warm or hot start of BDT if the BDT SNA manager was not active when BDT was terminated. Also, use X,SNA to reactivate the BDT SNA manager after issuing a C,SNA,NODE=ALL command. For more information see Chapter 2. Command Guide.
3. If the ACF/VTAM network has not been started when you use this command, message BDT2851 will be issued repeatedly until you start ACF/VTAM. Once ACF/VTAM is started, the command will be processed and will activate the BDT SNA manager.

At a BDT subsystem that has both file-to-file and NJE nodes, you must activate an ACF/VTAM application for file-to-file and an ACF/VTAM application for NJE before you can activate the BDT SNA manager. At your installation, these applications may be activated automatically when you bring up ACF/VTAM. If not, you can issue an ACF/VTAM VARY NET ACT command for each of the applications. See *VTAM Operation* for a description of the VARY NET ACT command.

Result

BDT issues these messages:

```
BDT6306 JOB job-no IS SNA P=15 O=origin-id T=receiving-node  
        F=sending-node (yyddd-hh .mm .ss)  
BDT2801 SNA MANAGER READY
```

Example

Using a prefix of *S,BDT, start SNA networking for your node, SYSA2.

```
*S,BDT,CALL,SNA
```

Result:

```
BDT6306 JOB 0001 IS SNA P=15 O=SYSA2  
        T=SYSA2 F=SYSA2 (86.256-08 08 09)  
BDT2801 SNA MANAGER READY
```

Z — Send Messages to Other Consoles or Users (File-to-File Feature Only)

Purpose

Use this command to send a message from a console at one file-to-file node to one or more consoles at the same or other file-to-file nodes.

Format

```
►► prefix MESSAGE Z , (node-name , sys-name , type , name) , message-text ►►
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name

is the name of the node to which the message is to be sent.

sys-name

is the identifier of the processor to which the message is to be sent (1 to 8 characters).

type

is the identifier of the type of console to which the message is to be sent (3 to 5 characters):

- TSO — TSO user
- JES — JES3 console
- MCS — MCS console
- JMC — JES3 console destination class.

name

is the name of the console to which the message is to be sent (1 to 8 characters):

- User ID for a TSO user
- Console name for a JES3 console
- Console name for an MCS console
- JES3 message class name.

message-text

is the message you want to send.

Usage Notes

1. This command is for file-to-file nodes only.
2. If you are on a TSO console, you are limited to 255 characters on the input line.

Result

BDT issues this message to the receiver:

```
BDT9935 MESSAGE FROM node-name sys-name type name message-text
```

Z

Examples

1. Using a prefix of BDT send the message “BDT system ready” to user D58BXHM on TSO system SY1 at node MCR10. You are user D74BCJK on system SY2 at the same node.

```
BDT,Z,(MCR10 SY1 TSO D58BXHM),BDT system ready
```

Result:

```
BDT9935 MESSAGE FROM MCR10 SY2 TSO D74BCJK:  
      BDT SYSTEM READY
```

2. From JES3 console CN1, send the message “BDT system shutdown at 1700” to all JES consoles on system SY1 at node SPK01.

```
*S,BDT,MESSAGE,(SPK01 SY1 JES ALL),BDT system shutdown at 1700
```

Result:

```
BDT9935 MESSAGE FROM SPK01 SY1 JES CN1:  
      BDT SYSTEM SHUTDOWN AT 1700
```

Appendix. Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
USA

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
Mail Station P300
2455 South Road
Poughkeepsie, NY 12601-5400
USA

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

Trademarks

The following terms are trademarks of the IBM Corporation in the United States or other countries or both:

- ACF/VTAM
- AnyNet
- BookManager
- CICS
- DFSMSdfp
- DFSMSdss
- DFSMSHsm
- DFSMSrmm
- DFSMS/MVS
- DFSORT
- ESCON
- FFST/MVS
- GDDM
- Hardware Configuration Definition
- IBMLink
- IBM
- IMS
- Language Environment
- MVS
- MVS/ESA
- OpenEdition
- OS/2
- OS/390
- RACF
- Resource Link
- RMF
- SOMobjects
- SystemView
- VisualLift
- VTAM
- z/OS

Glossary

This glossary defines important terms and abbreviations used in this book. If you do not find the term you are looking for, refer to the index or to the *IBM Dictionary of Computing* New York: McGraw-Hill, 1994.

ACF/VTAM. Advanced Communication Function for the Virtual Telecommunications Access Method.

Advanced Communication Function for the Virtual Telecommunications Access Method (ACF/VTAM). A licensed program that provides single-domain network capability, and optionally, multiple-domain capability.

ASR. Automatic session restart.

automatic session restart (ASR). A function defined at initialization that causes an interrupted session to attempt to restart automatically.

cold start. A method of starting BDT that reads the initialization stream and destroys the work queue.

DAP. Dynamic application program.

dependent transaction control (DTC). A method of controlling the scheduling of file-to-file transactions by organizing the transactions into a network in which some transactions wait for the completion of other transactions before being scheduled.

dynamic application program (DAP). A part of BDT that performs a particular function, especially the transfer of data.

fencing. In BDT, a method by which an installation can restrict the direction in which a set of VLUs can transmit file-to-file data.

global node. In BDT, the node that schedules and manages all file-to-file transactions involving itself and a local node and responds to commands issued against those transactions.

hot start. A method of starting BDT that does not read the initialization stream but preserves the work queue.

internal transfer. In BDT, a data transfer (transaction) that occurs between data sets at the same node, that is, a transfer for which the sending and receiving nodes are the same.

JES2. Job entry subsystem 2.

JES3. Job entry subsystem 3.

job entry subsystem 2 (JES2). A component of OS/390 that receives jobs into the system and

processes all output data produced by the jobs. JES2 exerts decentralized control over multiple processor complexes.

job entry subsystem 3 (JES3). A component of OS/390 that receives jobs into the system and processes all output data produced by the jobs. JES3 exerts centralized control over multiple processor complexes.

local node. In BDT, the node that receives file-to-file transactions and commands submitted by users and sends them to the global node for processing.

MCS. multiple console support.

multiple console support (MCS). An optional feature of MVS that permits selective message routing to multiple operators' consoles.

network. In BDT, two or more BDT nodes that are joined by SNA sessions.

network job entry (NJE). The transmission of jobs, in-stream data sets, operator commands and messages, system output data sets, and job accounting information from one computer complex to another across a telecommunication link.

NJE. Network job entry.

node. In BDT, the point in a BDT address space that is linked to another BDT address space for either file-to-file communication or SNA NJE communication.

poly-BDT complex. A JES complex that has more than one BDT address space.

session. In SNA, a logical connection between two network addressable units. The connection can be activated, deactivated, or tailored to provide different protocols.

SNA. Systems Network Architecture.

SNA manager. The BDT internode communication processor. It is initiated by a BDT operator command and subsequently invoked by the DAPs to send and receive data.

subsystem. A secondary or subordinate system, usually capable of operating independently of, or asynchronously with, a controlling system.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through and controlling the configuration and operation of networks.

task control block (TCB). The consolidation of control information related to a task.

TCB. Task control block.

time sharing option (TSO). A component of MVS that provides interactive computing from remote stations.

TQI. Transaction queuing integrity.

transaction. In BDT, (1) a request to copy a data set, transmit a SNA NJE job, or transmit SNA NJE output (SYSOUT), and (2) the work that BDT does to process the request. Requests to copy data sets are submitted to BDT by users. Requests to transmit SNA NJE jobs and output are submitted to BDT by JES3.

transaction definition. In BDT, a character string that identifies the data set that BDT is to copy, the data set into which BDT is to write the copy, and parameter values that BDT is to use while processing the transaction definition.

transaction queuing integrity. In BDT, a program that records commands and file-to-file transactions on a data set at the submitting node, thus allowing the transfers to be resubmitted automatically should they not reach the BDT work queue. TQI also allows users to receive messages.

TSO. Time sharing option.

virtual logical unit. In BDT, data and program logic that represents one user of a SNA session. The virtual logical unit enables more than one user to concurrently use a session.

VLU. Virtual logical unit.

warm start. A method of starting BDT that reads the initialization stream and preserves the work queue.

work queue. A BDT queue whose elements represent work that BDT must do on behalf of transactions.

Index

A

ACF/VTAM (virtual telecommunications access method) 9
 application IDs, displaying 73
 communications identifier (CID), displaying 53
 problems in 9
 RU count, displaying 53
 statistics for a node, displaying 53
activating the BDT SNA manager 7
active jobs
 canceling 21
 displaying 42
 data sets for 49
 number of 45
 on VLUs 57
 status of 42
 holding 21
 rescheduling 21
application ID (appl-id)
 displaying 73
 using to display sessions statistics 53
ASR 17
automatic session restart 17
 definition of 89
 disabling 17
 enabling when restarting a session 67

B

backlog, displaying 45
batch job used to submit commands 3
bdt-proc, definition of 2
BDT system log 26

C

C (CANCEL) command 1, 9, 17
CALL (X) command 1, 7, 83
CANCEL (C) command 1, 9, 17
canceling 17
 BDT 68
 communication from JES3 to BDT, NJE only 25
 jobs 10, 21, 35
 sessions between nodes 8, 17, 79
 SNA manager 17
 use of the BDT JES command 82
 use of VLUs 79
cell pools, displaying status of 48
changing 1
 concurrent session limit 69
 destination of SNA log 70
 DTC network hold count of job 34
 fencing of VLUs 38
 formatted dump option 20
 output devices for system log 28
 priority of jobs 24
 read checkpoint interval 75
 TQI resubmission interval 75

changing 1 (*continued*)
 VLU fencing 38
checkpoints 75
 changing interval 75
commands 1
 basic types of 1
 definition of 1
 entering 3
 format of 1
 parts of 1
 predefined 3
 sending to another node 78
 solving problems with 5
 submitting 3
 syntax diagrams of, how to use 1
 syntax rules for 1
 TQI protection of 3
communication
 between nodes
 canceling 17
 suspending 79
 suspending selected portions of 79
 establishing with another node 7, 67, 71
 JES3 to BDT, 82
 JES3 to BDT, NJE only 25
 over VLUs, controlling 79
 resuming NJE from JES3 to BDT 25
 suspending NJE from JES3 to BDT 25
consoles 2
 JES3, prefix for 2
 MCS, prefix for 2
 names, in routing of BDT SNA manager log 70
 routing system log to 26
 sending messages to 85
 TSO, prefix for 2
 types, in routing of BDT SNA manager log 70

D

DAPs (dynamic application programs) 17
 canceling SNA manager 17
 definition of 89
 displaying 50, 57
data set enqueue hold 45
data set status, displaying 49
dependent transaction control networks 33
destination 26
 of SNA log 70
 of system log 26, 28, 54
disabling 17
 ASR (automatic session restart) 17
 message handler address space 30
 session 17
 TQI 39
 TQI address space 39
 TQI message handler 30
displaying 32
 ACF/VTAM application IDs for nodes 73

- displaying 32 (*continued*)
 - active jobs, status of 42
 - active sessions 73
 - by appl-id 73
 - by node name 73
 - active TCBs, status of 44
 - backlog of jobs on work queue 45
 - BDT system log, destination of 54
 - bytes transferred for job 57
 - cell pool statistics 48
 - DAPs active on VLUs 57
 - data set enqueue hold, number of jobs in 45
 - data set status 49
 - DTC hold, number of jobs in 45
 - DTC network IDs 54
 - DTC networks, status of jobs in 55
 - DTC networks for jobs 50
 - dump option in effect 58
 - FCTs, information about 64
 - fencing of VLUs on node 57
 - held jobs, number of 60
 - JES3 interface, status of 58
 - jobs 11, 12, 50
 - active 42
 - by priority 59
 - in DTC networks 54
 - in hold status 60
 - on work queue, status of 50, 60
 - on work queue at other nodes 12, 78
 - submitted at your terminal 60
 - last restart 58
 - message handler, status of 32
 - messages, operator-action 64
 - modules, statistics for 64, 65
 - nodes, status of 57
 - operator-action messages 64
 - operator hold, number of jobs in 45
 - session status 53
 - SNA buffer pool statistics 48
 - SNA log, destination of 70
 - SNA manager, status of 73
 - system status 58
 - TQI, status of 41
 - VLU status 57
 - work queue 60
 - at other nodes 78
 - available space on 63
 - selected portions of 60
- DSI (dynamic system interchange) 82
- DTC (dependent transaction control) networks 12
 - canceling jobs in 33, 35
 - changing hold count in 34
 - displaying 50
 - all 55
 - for jobs on work queue 50
 - IDs 54
 - jobs in 55
 - flushing (canceling) jobs in 13, 35
 - problems with 12
 - first job runs too early 13
 - job is rejected when network submitted 14

- DTC (dependent transaction control) networks 12
 - (*continued*)
 - problems with 12 (*continued*)
 - jobs remain after flushing network 13
 - releasing a job from hold in 13, 37
- DUMP command 1, 19
- dumps 20
 - displaying option in effect 58
 - taking 19, 21
- dynamic allocation text units 50
- dynamic application programs 17
- dynamic system interchange (DSI) 82

E

- enabling 30
 - message handler address space 30
 - TQI address space 39
- enqueue hold, number of jobs in 45
- entering commands 3

F

- F (MODIFY) commands 1
 - F,DUMP 20
 - F,J,C 21
 - F,J,H or R 11, 23
 - F,J,P 24
 - F,JES3 25
 - F,LOG,ADEST or DDEST 26
 - F,LOG,MSGPROP 29
 - F,LOG,SYSLOG 28
 - F,LOG,WRITE 29
 - F,MSG,E or D 30
 - F,MSG,STATUS 32
 - F,NET,ID,J, I or D 13
 - F,NET,ID,J,C 33
 - F,NET,ID,J,F 35
 - F,NET,ID,J,I or D 34
 - F,NET,ID,J,R 13, 37
 - F,NODE,FENCE 38
 - F,TQI,E or D 39
 - F,TQI,STATUS 41
 - using to 20
 - cancel jobs in DTC network 33, 35
 - change DTC network hold count 34
 - change fencing of VLUs 38
 - change formatted dump option 20
 - change job's priority 24
 - change message propagation status 29
 - change output device for system log 28
 - disable message handler 30
 - disable TQI address space 39
 - display status of TQI message handler 32
 - enable message handler 30
 - enable TQI address space 39
 - hold jobs 23
 - print BDT system log 29
 - release jobs from DTC network hold 37
 - release jobs from operator hold 23
 - route system log to console 26

F (MODIFY) commands 1 (*continued*)
 suspend or resume NJE communication from
 JES3 to BDT 25

FCTs (function control tables) 64
 displaying information about 64

fencing (of VLUs) 38
 changing 38
 definition of 89
 displaying 57
 removing restrictions 38

flushing jobs in a DTC network (canceling) 35

format of commands 1

formatted dump
 canceling
 in a DTC network 33, 35
 option, changing 20
 taking 19, 20

function control tables (FCTs) 64
 displaying information about 64

G

glossary 89

H

hold count of jobs 34
 changing 34
 displaying 55

hold status for jobs on work queue, displaying 50

holding jobs 10, 21, 23

I

I (INQUIRY) commands 1
 I,A 9, 42
 I,A,TCB 44
 I,B 12, 45
 I,C 48
 I,DSN 49
 I,J 9, 50
 I,L 53
 I,LOG 54
 I,NET 54
 I,NET,ID 12, 13, 55
 I,NODE 57
 I,OPT 58
 I,P 12, 59
 I,Q 12, 60
 I,QS 63
 I,R 64
 I,X,FCT 64
 I,X,M 65

using to display 42
 active jobs 42
 active TCBS, status of 44
 backlog of jobs on the work queue 45
 cell pools and SNA buffer pools 48
 data set status 49
 DTC network IDs 54
 DTC networks for jobs 50

I (INQUIRY) commands 1 (*continued*)
 using to display 42 (*continued*)
 dump option in effect 58
 JES3 interface 58
 jobs 11
 jobs, status of by priority 59
 jobs by job name 11, 50
 jobs by job number 11, 50
 jobs in DTC networks, status of 55
 jobs in hold status 60
 jobs on work queue, status of 50, 60
 jobs submitted at your terminal 60
 last restart 58
 modules, statistics for 64, 65
 nodes, status of 57
 operator-action messages 64
 session status 53
 system log, destination of 54
 system status 58
 VLUs, status of 57
 work queue, available space on 63
 work queue, jobs on 50, 60

integrity of commands (TQI) 3

internal transfer jobs 45, 89

interrupting
 communication between nodes 79
 communication from JES3 to BDT
 file-to-file and NJE 82
 NJE only 25
 reading from the TQI checkpoint data set 75
 use of VLUs 79

J

JES command 1, 66
 controlling interface for 82

JES3 2
 commands, using from BDT 66
 communication to BDT
 file-to-file and NJE, suspending or resuming 82
 NJE only, suspending or resuming 25

console 2
 prefix for 2

displaying status of interface with BDT 58

jobs 9
 canceling 10, 21
 changing 24
 DTC network hold count of 34
 priorities of 24
 data sets associated with 49
 displaying 11, 42
 active 42
 backlog of 45
 by priority 50, 59
 DTC networks for 50
 hold status of 50
 numbers for those in DTC networks 54
 origins of 50
 receiving DAP for 50
 receiving node for 50
 sending DAP for 50

jobs 9 (*continued*)
 sending node for 50
 those on work queue 50, 60
 those submitted at your terminal 60
holding 10, 21, 23
in DTC networks 33
 canceling 33, 35
 displaying 55
locating in system 11
on work queue 60
releasing from 23
 DTC hold 37
 operator hold 23
rescheduling 21
stuck on session 9
successor 35

L

locating jobs in the system 11
log, BDT SNA manager
 destination of
 changing 70
log, BDT system 14, 26
 destination of 28
 changing 28
 displaying 54
 printing 29
 routing to console 26
log, SNA manager
 destination of
 displaying 70

M

MCS consoles, prefix for 2
MESSAGE (Z) command 1, 85
message handler, TQI 30
messages 30
 displaying operator-action 64
 routing of TQI 30
 sending to other consoles or users 85
modules, displaying statistics for 64, 65

N

networks 67
 definition of 89
 establishing 67, 71, 83
NJE (network job entry)
 communication between nodes
 stopping (canceling) 17
 suspending (varying) 79
 communication from JES3 to BDT, controlling 25
 definition of 89
 VLU names for 57
 VLU numbers for 57
nodes 38
 canceling sessions between 17, 79
 definition of 89
 displaying status of 57, 73

nodes 38 (*continued*)
 global, definition of 89
 local, definition of 89
 starting sessions between 67, 71
 varying online or offline 79
 VLUs at, status of 57

O

operator-action messages, displaying 64
operator hold
 displaying jobs in 45, 60
 entering active jobs into 21
 entering non active jobs into 23
 releasing jobs from 23
other nodes
 displaying information about 78
 sending commands to 78

P

PF keys, using to submit commands 3
poly-BDT 2
 definition of 89
 prefixes for commands in 2
predefined commands, entering 3
prefixes for commands 2
printing the system log 29
priority 24
 changing for job 24
 displaying for jobs on work queue 50
 displaying jobs by 59
 range for jobs 24
problems with BDT, using commands to solve 5

R

R (RESTART) command 1, 9, 67
read checkpoint interval, changing 75
releasing jobs 11, 23
 from DTC hold 37
 from operator hold 11, 23
remote job processing (RJP) terminal 66
rescheduling jobs 21
restart, displaying last 58
Restart (R) command 67
RESTART (R) command 1
restarting 9, 67
 sessions, with ASR enabled 9, 67
 TQI reading of transactions 75
RETURN command 1, 68
RJP (remote job processing) terminal 66

S

S (START) commands 1
 S,SNA,LIMIT 69
 S,SNA,LOG 70
 S,SNA,LOG=? 70
 S,SNA,NODE 71
 S,SNA,STATUS,LIST 73

- S (START) commands 1 (*continued*)
 - S,TQI,DELAY 75
 - S,TQI,RESTART 75
 - S,TQI,SUSPEND 75
- SEND (T) command 1, 78
- sending 66
 - commands to other nodes 78
 - JES3 commands from BDT 66
 - messages to other consoles or users 85
- sessions 9, 17
 - ACF/VTAM statistics for 53
 - canceling 8, 17
 - changing limit of FTF and NJE 69
 - controlling use of 79
 - controlling VLU's in 79
 - definition of 89
 - determining if data is moving on 9
 - determining if they are working 8
 - displaying 45
 - BDT's use of 45
 - information about active 73
 - limit of 73
 - jobs stuck on 9
 - restarting, with ASR enabled 67
 - solving problems on 9
 - starting 67, 71
 - status of 53
 - suspending 79
- SNA (systems network architecture) 17
 - buffer pools, displaying status of 48
 - concurrent session limit, changing 69
 - log 70
 - changing destination of 70
 - displaying destination of 70
 - manager 17
 - activating 7, 83
 - canceling 17
 - definition of 89
 - displaying status of 73
 - networks, establishing 83
 - NJE communication from JES3 to BDT,
 - suspending 25
 - sessions, canceling 17
 - starting for BDT 7, 83
- starting 67
 - BDT 5, 83
 - cold start 6
 - cold start, definition of 89
 - hot start 7
 - hot start, definition of 89
 - hot start, submitting JES3 commands after 83
 - warm start 6
 - warm start, definition of 90
 - BDT SNA manager 7, 83
 - reading from the TQI checkpoint data set 75
 - sessions 7, 67, 71
 - SNA 7, 83
 - transaction queueing integrity (TQI) facility 5
- stopping 17
 - BDT 68
 - communication 17

- stopping 17 (*continued*)
 - between nodes, by canceling session 8, 17
 - between nodes, by varying VLU's 79
 - from JES3 to BDT, file-to-file and NJE 82
 - from JES3 to BDT, NJE only 25
 - over VLU's 79
 - reading from the TQI checkpoint data set 75
 - SNA manager DAP 17
 - use of the BDT JES command 82
- submitting commands 3
- suspending
 - communication
 - between nodes 79
 - from JES3 to BDT 82
 - from JES3 to BDT, NJE only 25
 - reading from the TQI checkpoint data set 75
 - use of VLU's 79
- syntax of commands 1
- system log 26
- systems network architecture 17

T

- T (SEND) command 1, 78
- task control blocks (TCBs) 44
 - definition of 90
 - displaying 44
- TCBs (task control blocks) 44
 - definition of 90
 - displaying 44
- terminating 17
 - BDT 68
 - communication between nodes 17, 79
 - SNA manager DAP 17
- text units, dynamic allocation 50
- TQI (transaction queueing integrity) 3
 - changing read checkpoint interval 75
 - definition of 90
 - disabling recording of transactions 39
 - displaying status of 41
 - enabling recording of transactions 39
 - message handler 30, 32
 - processing of commands 3
 - restarting BDT reading from 75
 - starting 5
 - suspending BDT reading from 75
- transaction queueing integrity 3
- transactions 25
 - and TQI 39, 75
 - definition of 90
 - JES3 to BDT, resuming 25
 - JES3 to BDT, suspending 25
- TSO consoles 2
 - prefix for 2

V

- V (VARY) commands 1
 - using to suspend 79
 - session with a node 79
 - use of a VLU 79
- V,JES3 82

V (VARY) commands 1 (*continued*)

V,node-name 79

V,node-name.vlu 79

VLUs (virtual logical units) 1

changing fencing of 38

controlling communication over 79

definition of 90

displaying 57

DAPs active on 57

jobs active on 57

status of 57

names for file-to-file and NJE 57

suspending use of 79

varying online and offline 79

VTAM 53

W

work queue

changing priority of jobs on 24

definition of 90

displaying 45

available space on 63

backlog on 45

jobs on 50, 60

selected portions of 60

releasing jobs from hold on 23

rescheduling jobs on 21

X

X (CALL) command 1, 7, 83

Z

Z (MESSAGE) command 1, 85

Readers' Comments — We'd Like to Hear from You

**z/OS
Bulk Data Transfer
Commands**

Publication No. SA22-7512-00

Overall, how satisfied are you with the information in this book?

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall satisfaction	<input type="checkbox"/>				

How satisfied are you that the information in this book is:

	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Accurate	<input type="checkbox"/>				
Complete	<input type="checkbox"/>				
Easy to find	<input type="checkbox"/>				
Easy to understand	<input type="checkbox"/>				
Well organized	<input type="checkbox"/>				
Applicable to your tasks	<input type="checkbox"/>				

Please tell us how we can improve this book:

Thank you for your responses. May we contact you? Yes No

When you send comments to IBM, you grant IBM a nonexclusive right to use or distribute your comments in any way it believes appropriate without incurring any obligation to you.

Name

Address

Company or Organization

Phone No.



Fold and Tape

Please do not staple

Fold and Tape



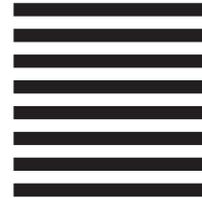
NO POSTAGE
NECESSARY
IF MAILED IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 40 ARMONK, NEW YORK

POSTAGE WILL BE PAID BY ADDRESSEE

IBM Corporation
Department 55JA, Mail Station P384
2455 South Road
Poughkeepsie, NY
12601-5400



Fold and Tape

Please do not staple

Fold and Tape



Printed in the United States of America
on recycled paper containing 10%
recovered post-consumer fiber.

SA22-7512-00

