

Sources User Guide

CSG Data Mediation Release 9.0

Contents

	Notational Conventions CSG Systems, Inc. Customer Support Consulting Services Data Mediation System Documentation	V
1	About Sources	
	Working with Sources Working with Switch-specific Constraints Working with Source Interfaces Working with Tracer Sources Working with the Expansion Option for AMA Records Understanding the Source Application Associations Process Understanding Merging Files Working with Output File Naming Understanding Sources, Input Tape Formats, and Conversions Understanding Input Tape Formats, Sources, and File Conversions Understanding Data Collection	
	Understanding Data Confection	
2	Sources Application Pages Create a New Source Wizard	64
	Sources Page. Open the Source Page Go to the Create a New Source Wizard Go to an Existing Source Page Suspend Data Collection Resume Data Collection Set a Source to be Archived. Set a Source to Do Not Archive. Stop a Data Collection	69 70 72 73 74
	Source Page. Open an Existing Source Page. Update the Source Page. Go to Another Page in the Source.	79
	Source File Systems Page	

ii Contents

Remove File Systems.	86
Source Type Parameters Page	
Open the Source Type Parameters Page	
Update the 5ESSI Source Type	
Update the AFT Source Type	
Update the AFTCP Source Type	
Update the AMATPS Source Type	
Update the CD Source Type	
Update the CDRP Source Type	
Update the DDI Source Type	
Update the EAP Source Type	
Update the EFOG Source Type	
Update the EMTP Source Type	
Update the EUDC Source Type	
Update the EWSD Source Type	
Update the Exception Source Type	
Update the FILE Source Type	
Update the FTP Source Type	
Update the GFTAM Source Type	
Update the GTPP Source Type	
Update the HICAP Source Type	
Update the Motorola Source Type	
Update the NETFLOW Source Type	
Update the Report Source Type	
Update the SFTP Source Type	
Update the SNMP Source Type	
Update the Tape Source Type	113
Read From a Tape Wizard	115
Open the Data Collection Tape Wizard	
Run the Data Collection Tape Wizard	
Data Collection Controls Page	122
Open the Data Collection Controls Page	
Update the Data Collection Controls Page Settings	
Start a Source	
Stop a Source	
Resume a Source	
Suspend a Source	
Suspend a Source	131
Source Application Associations Page	
Open the Source Application Associations Page	135
Add an Application Association	136
Update an Application Association	137

Contents

	Source Destinations Associations Page	139
	Open the Source Destinations Associations Page	
	Add a Source Destination	
	Update a Source Destination	143
	Remove a Source Destination	144
	Site Information Page	145
	Open the Site Information Page (for Sources)	
	Open the Site Information Page (for Destinations)	
	Add Site Information	
	Add a Contact	150
IN	Index	151

iv Contents

This information product ("IP") is furnished for your use only, and no disclosure or use of any portion of these materials may be made without the express, written consent of CSG Systems, Inc. ("CSG"). The information is subject to change without notice, and CSG assumes no responsibility or liability for any errors or inaccuracies that may appear in this IP.

This IP is the property of CSG and its licensors, and it contains confidential and proprietary information of CSG. Copying, modifying, or distributing this IP in violation of a license agreement, confidentiality agreement, United States Copyright Law, or the copyright law of any applicable foreign jurisdiction is expressly prohibited. Refer to your contract to determine how many copies you may print; the contract serves as your print authorization for outside vendors.

The CSG Data Mediation system contract specifies your system configuration (e.g., capacities) and identifies the optional features you have purchased. This IP contains information on all of the features available in the Release, including those you may not have purchased, which are thereby not available for use. CSG does not support external use of the third-party software packages included in the Data Mediation Feature Set.

CSG Systems and the CSG logo are registered trademarks or trademarks of CSG Systems, Inc. and its affiliates in the United States and other countries. All other brand and product names are trademarks, service marks, registered trademarks, or registered service marks of their respective owners.

© 2002 CSG Systems, Inc. All rights reserved.

About the Documentation

Notational Conventions

Note Im	nportant notes appear in this format.				
Caution	Indicates possible danger to data, software, or hardware.				
Warning!	Indicates serious risk of damage to data, software, or hardware.				

Table 1 Notational Conventions

Text formatted like this	Is used for	Example
Helvetica italic	References to printed documents	For more information on the Users page, see the <i>Administration Guide</i> .
<pre><uppercase helvetica=""></uppercase></pre>	Keys	Press <enter>.</enter>
Courier bold	Code and file names	At the prompt, type rename .
Helvetica bold	Buttons, icons, and menu items	Click Submit .

CSG Systems, Inc. Customer Support

Domestic hardware and software support

If local practices cannot solve the problem, or if directed to do so by the local practices, contact CSG Systems, Inc. Customer Support or your CSG representative.

CSG Systems, Inc. Customer Support provides trouble resolution management and serves as your single point of contact for domestic Data Mediation hardware and software problems.

International hardware and software support

Local (in-country) field support (LFS) provides trouble resolution management and serves as your single point of contact for international Data Mediation hardware and software problems.

vi About the Documentation

Consulting Services

CSG Systems, Inc. Billing Systems Team provides assistance with installation, provisioning, and customizing of certain features through their Mediation Engineering and Consulting Services (MECS). This assistance must be negotiated as a separate services option. Contact your customer account executive for more information.

Here are some of the services the CSG Billing System Team can provide:

- GRID provisioning
- Format conversion mappings
- Validation criteria
- Filters and searches
- Post processing
- Correlation conversion mappings

Data Mediation System Documentation

These manuals are available for the CSG Data Mediation System:

- **Administration Guide** Describes the administration pages and the procedures to administer and maintain the basic Data Mediation system
- API Programmer's Guide Provides information for building applications using the Socket Based Record Transmission API.
 Programmers can use the guide to use the records received from the Data Mediation system for their own customized downstream application solutions
- **Application Elements Reference Guide** Contains detailed information of form fields and buttons that appear in the application
- Exception File Management Reference Guide Describes the Exception File Management feature and provides descriptions and procedures for the pages and other objects associated with the feature
- **File Name Conventions Reference Guide** Lists the file names and file name convention descriptions
- **Getting Started Guide** Provides an overview of the Data Mediation system application and information for using the interface
- Installation Guide Describes how to install the Data Mediation system, including information about the Post Processing feature and an appendix of critical and major alarm messages
- Interface Reference Guide Contains reference information on the CDDS, CDRP, and OBDC interfaces
- Mediation Feature Reference Guide Describes the mediation feature components the semantics and general syntax of the GRID Mapping Language (GML)
- Scripts Reference Guide Provides information on script files that contain additional instructions for functions for data collection and transmission
- **User Guides** Describe the pages that can be accessed from the launch page and what procedures can be performed on each page. These guides are the:
 - » Data Collection User Guide
 - » Data Files User Guide
 - » Data File Searches User Guide
 - » Data Transmission Schedules User Guide

viii About the Documentation

- » Destinations User Guide
- » Logs User Guide
- » Mediation Features User Guide
- » Reports User Guide
- » Sources User Guide
- » System Summary User Guide

This chapter contains information on:

- Working with Sources
- Working with Switch-specific Constraints
- Working with Source Interfaces
- Working with Tracer Sources
- Working with the Expansion Option for AMA Records
- Understanding the Source Application Associations Process
- Understanding Merging Files
- Working with Output File Naming
- Understanding Sources, Input Tape Formats, and Conversions
- Understanding Input Tape Formats, Sources, and File Conversions
- Understanding Data Collection
- Understanding Data Storage

Working with Sources

Sources can be defined, but cannot collect data until:

- Sources are provisioned in the UNIX system networking configuration file
- The destination is defined
- The source is set up to distribute data to the destinations

See the specific protocol requirement documents for the type of sources connected to your data mediation system.

Requirements for CONNECT:Direct

The setup of the configuration files is a customer responsibility. Sources using the CONNECT:Direct (CD) protocol have configuration files that must be modified when a new CD source is added, when you want to modify an existing source, or when you want to add a new user.

The configuration files are the Network Map Information File and the User Authorization Information File and are accessed by clicking **Configure** on the Source Type Parameters page.

Each user who performs data collection operations for CD sources must be correctly configured in the User Authorization Information File and have the correct permissions set on the User Accounts page.

Requirements for FTP

The setup of the configuration files is a customer responsibility. Each user who performs data collection operations for an FTP source provisioned to execute a remote shell command must have the correct permissions set on the User Accounts page and must be correctly configured in the applicable operating system files. For UNIX, these files include:

- /etc/hosts.equiv
- .rhosts files

Requirements for File Formats

The file format must be created through GRID and a successful GRID file format audit run before a successful connection can be established with the source.

References

- → For information on destinations, see "Destinations Page" (3-21) in the Destinations User Guide and the "Source Destinations Associations Page" (11-139) in the Sources User Guide
- → For information on permissions, see "Working with Permissions (Security Profiling)" (1-2) in the Administration Guide
- → For information on how to view and edit CONNECT:Direct Information files, see "Working with Scripts" (1-12) in this guide

Working with Switch-specific Constraints

For report sources, a separate source must be defined for each type of desired report.

The Motorola DAS source lets DM receive one DAS record at a time from the Motorola switch through the DAS port. Each record is written to a file in the data directory for the associated source. DM closes the file when the program is terminated or when the maximum:

- File size is reached
- Number of records for the file is been reached
- Amount of time for the file to be written to is reached

Polling precedence

There are four parameters or items associated with a GFTAM source that determine which files are to be polled. At least one of the parameters or items must be defined. If more than one parameter or item is defined, DM executes only one of the parameters or item following the order listed in this table.

Order	Item Name/Parameter/	Description
1	Data File Name	Is a field specified on the <u>Data File Page</u>
2	File Names	Is a scrollable list of file names specified on the Source Type Parameters Page
3	file_lister	Are parameters possibly contained in a
4	name_polled	script file—the script file name is specified on the Source Type Parameters Page

Mediation on input

The Mediation on Input feature lets you specify mediation feature application IDs or a CORFILTER to be performed on incoming data files as they are collected from a source.

References

→ For descriptions of how to create script files and for descriptions of the file_lister and name_polled parameters, see "Generic FTAM Script File Parameters" (1-24) in the Script Files Reference Guide

Working with Source Interfaces

Sources are categorized by the protocol and the type of source interface they use.

Protocols are standard procedures for regulating the transfer of data. They are classified as either active or passive. A protocol is considered active (or receiver-initiated) if DM initiates all the data collection sessions. A protocol is considered passive (or sender-initiated) if the source controls the data collection.

- Active protocols allow for scheduled or on-demand data collection
- Passive protocols do not allow scheduling or demand data collection sessions
- FTP can be either active or passive, depending on the source type
- CONNECT:Direct and CDRP allow demand secondary data collection

<u>Table 2, "Most Commonly Supported Source Interfaces" (-13)</u> describes some of the common supported source interfaces or applications, source types, source protocols, and whether the protocol is active or passive. <u>Table 3, "Supported Source Interfaces — Applications or Mediation Features" (-16)</u> provides corresponding information for Applications and Mediation Features.

The value specified in the Source Type column is the name or acronym used on the Source Definitions page to identify the source interface.

	Table 2	Most Commonl	v Supported So	urce Interfaces
--	---------	--------------	----------------	-----------------

Source Interfaces or Applications	Source Type	Protocol	Protocol Description	Protocol Type
Switches using Automatic Message Accounting Teleprocessing System (AMATPS), such as Lucent Technologies domestic 5ESS switches	AMATPS	AMATPS	Based on BX.25 and defined by Bellcore TR-385. The physical media is dedicated, packet switched or dial-up links.	Active
Switches using High Capacity Automatic Message Accounting Protocol (HICAP), such as the Operations & Maintenance Platform (OMP) of the Lucent Technologies Autoplex switch	HICAP	HICAP	Modeled after AMATPS but replaces BX.25 with TCP/IP remote procedure calls	Active

Source Interfaces or Applications	Source Type	Protocol	Protocol Description	Protocol Type		
Lucent Technologies international 5ESS switches	5ESSI	FTAM	File transfer protocol requiring the OSI seven layer stack	Active		
Switches using E WSD interface	EWSD	-				
Any other sources using an FTAM interface	GFTAM					
Lucent Technologies Service Control Point (SCP)/Service Circuit Node (SCN)	SCP					
Any source using File Transfer Protocol (FTP) type interfaces	FTP	TCP/IP suite	TCP/IP suite	FTP	File transfer protocol of the TCP/IP suite The FTP source type can be	Active or Passive
AMADNS Data Server to Data Processing and Management Systems Interface (DPMS) Interface (DDI) type switches	DDI		receiver- or sender-initiated.			
Ericsson AXE switches using Adjunct Processor (AP), File Operations Gateway (FOG), and Universal Data Collector (UDC) interfaces	EAP EFOG EUDC			Passive		

Source Interfaces or Applications	Source Type	Protocol	Protocol Description	Protocol Type
Ericsson switches using Ericsson Message Transfer Protocol (MTP)	EMTP	MNP/MTP (X.25)	Multi-Network Protocol (MNP) multi-link file transfer with 1 to 4 logical X.25 links	Passive
Switches using the AFT facility, such as the Northern Telecom Wireless Switches (DMS-MTX) Northern Telecom Wireline Switches (DMS-250)	AFT		Message Transfer Protocol (MTP) for single link file transfer with a logical X.25 link Both protocols are supported by the AFT utility and Ericsson switches using Ericsson MTP DM only supports one logical X.25 link for each Nortel AFT interface AFT over X.25 is senderinitiated. If it is necessary to end a session before the file has been completely transmitted, only the last unacknowledged block is	
	AFTCP	MNP/MTP (TCP/IP)	Used to poll any source that supports AFT over TCP/IP for the DMS-250 MNP or MTP protocol AFT over TCP/IP is receiverinitiated and file-based. An appropriate CNT_ERR message is sent, if it is necessary to end a session before the file has been completely transmitted. The next session begins with the last acknowledged block from the file in some circumstances but the last acknowledged one in others	Active
Motorola EMX switches using Motorola Serial Data Acquisition System (DAS) ports	Motorola	DAS	High-level Data Link Control (HDLC) protocol for Motorola DAS	Passive

Source Interfaces or Applications	Source Type	Protocol	Protocol Description	Protocol Type
Switches using a CONNECT:Direct interface CONNECT:Direct has been deployed by the major Local Exchange Carriers (LECs) to provide a common standard for data exchange between their companies. A LEC is a local phone company	CD	CONNECT: Direct	File transfer system to transport data between mainframe, mini and micro computers. It provides additional security over standard FTP. CONNECT:Direct was formerly known as Network DataMover	Passive
Switches using the CDRP facility such as Lucent Technologies 4ESS switches	CDRP	CDRP	AMA transmitter for the 4ESS switch used exclusively by AT&T. DM interfaces to the CDRP for the collection of AMA data in AMATPS blocks	Passive
BILLDATS II Collectors	FILE	FILE	Protocol from BILLDATS II or BILLDATS IV Collectors.	Passive

 Table 3 Supported Source Interfaces — Applications or Mediation Features

Source Interfaces or Applications	Source Type and Protocol
DM Correlation mediation feature	CORRELATE
Correlate source types provide storage internal to DM for Correlation files	
DM Exception File Management application	EXCEPTION
Exception source types provide storage for exception data files generated during data file transmission.	
DM Report Transmission application	REPORT
Report source types provide storage internal to DM for output files of these reports:	
Transmission Statistics	
Polling Statistics	
Journal	
Gap Analysis	
CDDS Statistics	
Custom	
Enhanced Journal	
Record Processing Accounting	

Source Interfaces or Applications	Source Type and Protocol
DM Production Search mediation feature	SEARCH
Search source types provide storage internal to DM for Production Search output files.	
DM Tape application	TAPE
Tape source types provide storage for usage data files read from tape.	
DM Tracer Distribution application	TRACER
Tracer source types provide storage internal to DM for Tracer Distribution output files.	

Working with Tracer Sources

Tracer sources are storage areas for files of tracer records. The tracer sources allow DM to:

- Transmit tracer records to a different destination than the one receiving the data records
- Transmit tracer records that have been updated with transmission record counts

A Tracer source is generated when a destination is created or updated with the value of the Tracer Distribution field set to Yes.

Tracer records

Tracer records contain counts of call detail records generated by the source, counts of records collected by DM, and counts of records transmitted to the destination. These records can be analyzed to determine if call data records are being lost as they are transferred from a source to DM and from DM to the destination.

Tracer record processing

Tracer record processing is the updating of the Received, Sent, and Lost values on the primary tracer records in AMA data records. DM performs tracer record processing for these source types:

- AMATPS
- AMADNS
- DDI
- HICAP
- CDRP

Primary tracer counts

For the AMATPS and HICAP sources, primary tracer records are received hourly. The primary tracer counts increment through the day until the source indicates a daily reset of the count.

Primary tracer records for AMADNS sources also increment counts in this manner. However, DM resets the count each time it receives a primary tracer record.

Tracer sources

Tracer sources store files of tracer records that contain both the count of records received by DM and the count of records transmitted to the destination. This lets you transmit the completed tracer records to another downstream process that analyzes the number of records received and transmitted by DM to make certain the count of records generated by the source matches the count of records transmitted to the destination.

Tracer records for CDRP data

The CDRM system receives a filtered feed of tracer records from each data record file sent to a destination called the RICS system. Since the RICS system receives an hourly feed of data from DM, the CDRM system would have to wait an hour or more before receiving the filtered tracer records. To avoid the delay, DM filters out the tracer records upon transmission to the destination. DM then stores copies of the tracer records with the Sent, Received, and Lost values updated under a tracer source. The updated tracer records are either distributed to the CDRM system manually or at a scheduled time.

Working with the Expansion Option for AMA Records

Record expansion option

This table describes the scenarios possible with the record expansion option

IF the option is set to	AND the source is a	THEN
Yes	Multi-switch	The Recording Office ID and the Recording Office Type are expanded in the AMA record
Yes	Not a multi- switch	The Recording Office ID, the Recording Office Type, the Sensor ID, and the Sensor Type are expanded in the AMA record
No	Either	No record expansion is done

Secondary data

For secondary data, the Sensor ID field must always be in the proper position in the AMA record. This is because the secondary indicator is set to a value of 1, regardless of the Record Expansion setting.

A *multi-switch source* is one that provides information from multiple switches, either in a single file or in alternating files.

Understanding the Source Application Associations Process

This is a pictorial example of the processing flow for mediation on input with the Source Post Processing and Exception File Management feature specified on the Source Page. In this example, Source 1 generates file format A (ffA) type files. The source post processing changes the ffA files to ffB files. A mediation feature, Format Conversion or Package Manager, installed in the source application stream converts the ffB files to ffC files that are stored in the Source 1 primary directory.

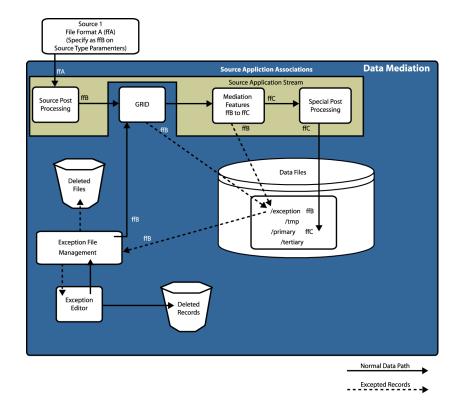


Figure 1 Processing Flow - Mediation on Input

- The file format, identified as ffA in the data flow example, can only be changed before being placed in the DM primary directory by the Source Post Processing, Format Conversion Module, or Package Manager features.
- Mediation Features listed on the Application Manager are executed after the successful completion of any source post processing specified on the <u>Source Page</u>.
- The data file records are parsed by GRID and handed off to the Application Manager to process applications installed in the Source Application Stream.
- When the exceptions feature is enabled, only GRID, Validation, and Format Conversion Module features can generate exception records or files on input.

• Records excepted on input are sent to the exception directory for the source. So, an empty file can be committed to the primary or tertiary directory.

- If GRID is unable to continue parsing beyond an exception record, a GRID ABORT occurs and the entire file is sent to the exception source.
- Excepted input records can be edited and verified. The corrected files can then be sent to the primary or tertiary directory and returned to the processing stream, held for user disposition, or deleted.
- No GRID Journal records are generated for files processed through the source application stream.
- The resulting output file is committed to the designated primary directory where it is stored until the data is transmitted downstream.

Understanding Merging Files

When using the File Merge feature:

- The feature is specified on a source to destination pair.
- The frequency of transmission is based on the normal scheduling provided by DM.
- If data to be transmitted exceeds the maximum limit for the output file, the output file is closed and another output file is opened.
- Files are not split across merged output files.
- The number of destination or source pairs that can use the File Merge feature is dependent upon the disk space allocated to build the output files.
- Engineering must take place to be sure that the temporary file system used for concatenating the files is large enough to handle the merged output file
- Production Filter or Format can affect the size of the output file.
- The File Merge feature cannot be used with Record Based Transmission.
- The File Merge feature affects generic file naming parameters. If the file
 format has defined file headers or trailers, the output files use the first
 input file header and the last input file trailer. All interim file headers and
 trailers are discarded.

Temporary file system

When choosing a file system to use as the temporary space to build the merged output file, ensure that the file system has enough space for the maximum sized output file. If the file system runs out of space, the transmission of the output file or files fails. One way to prevent this is to assign only one destination using the File Merge feature to a file system.

Interaction with Production Filter or Format

When the merged files are filtered or formatted, the filtering or formatting is done after the files have been merged. If the output file is filtered after a merge, it can be smaller than the Maximum File Size value. If the output file is formatted after a merge, it can be either larger or smaller than the Maximum File Size value.

Working with Output File Naming

The output file sent to a destination that merges multiple input files uses the same output file name functionality as normal output files. However, individual files within a merged file cannot retain the files names. For example, if block sequence numbering is used in file naming, the first block sequence number in the first file and the last block sequence number in the last file are used for the merged file output name.

The order of file transmission also has an impact. The output file name macros used on the "Destination Type Parameters Page" (6-45) are derived from the transmitted order of files.

Output file name macros

<u>Table 4, "Output File Name Macros" (-24)</u>, lists affected output file name macros, the value of the macro, and the file that the value is derived from if the File Merge feature is used.

Table 4 Output File Name Macros

Macro	Value	File Origin of Value
BEGBLKSEQ	Beginning block sequence number	First file merged
ENDBLKSEQ	Ending block sequence number	Last file merged

Notes:

- The BEGBLKSEQ and ENDBLKSEQ macros can support up to a 9 digit sequence number
- The optional format is {BEGBLKSEQ(N,P)} where N specifies the maximum number of digits, 1-9
- P indicates padding and is specified as Y or N
- If padding is specified, the number is right justified and padded with leading zeroes. If padding is not specified, the number is output up to the maximum number of digits and then truncated
- The default is (6,Y) if no arguments are specified

FILESEQ	File sequence number that occurs as part of the input file name	Last file merged
	Input file names from Ericsson, Nortel, and DDI contain only sequence numbers	
DUPEXT	Two digit duplicate value extension added to file names polled when the input name is the same as a previous file polled	Last file merged
INPUTFILENAME	Entire input file name as stored on DM's disk	Last file merged

Macro	Value	File Origin of Value
PRISECIND	One character indicator that represents the polling type of the file being transferred. Options are:	First file merged
	p — primary files — secondary filesleepy1	
PRISECTERM	Term that represents the polling type of the file being transferred. Options are:	First file merged
	PrimarySecondary	
DTPOLL	Date or time that the file is polled	First file merged
	Several date and time formats are available. See {DTTRANS()} for the variables used in these formats.	
DTOPEN	Date or time that the file is opened	First file merged
	 Several date and time formats are available. See {DTTRANS()} for the variables used in these formats. This field is applicable for DAS source types. 	

Understanding Sources, Input Tape Formats, and Conversions

<u>Table 5, "File Conversions" (-26)</u> lists the file conversions that are allowed for a source and input tape format combination.

Table 5 File Conversions

For associated source type of	IF the input tape format is	THEN the valid file conversion is
5ESSI	CLDS	None
	RAW	
AFT	RAW	
AFTCP		
AMATPS/HICAP	CLDS	CLDS or AMA
	RAW	None
CDRP	CLDS	CLDS
	RAW	None
CONNECT:Direct	RAW	None
DDI	CLDS	CLDS or AMA
	RAW	None
EAP/EFOG/EUDC	RAW	
EMTP	RAW	
EWSD	RAW	
File	CLDS	
	RAW	
FTP	CLDS	
	RAW	
GFTAM	CLDS	
	RAW	
Motorola DAS	DAS	No File Header, or File Header
	RAW	None
SCP	CLDS	CLDS, AMA, or none
	RAW	no conversion

Understanding Input Tape Formats, Sources, and File Conversions

<u>Table 6, "Source Types and File Conversions" (-27)</u>, lists the associated source types and file conversions that are allowed for each input tape format.

Table 6 Source Types and File Conversions

Input Tape Format	Associated Source Types	Possible File Conversions
CLDS	HICAP/AMATPS	CLDS or AMA
	DDI	CLDS or AMA
	SCP	CLDS, AMA, or none
	CLDS	CLDS
DAS	DAS	File header or no file header
	Any other source type	None
RAW	Any source type	None

Understanding Data Collection

Data collection is determined by the protocols established for the sources and Data Mediation system. The Data Mediation system supports multiple source interfaces and protocols with a separate process instance for each polled source. Consequently, multiple independent streams of data from different types of sources can all flow simultaneously into the Data Mediation system.

Data collection sessions can be initiated by the Data Mediation system or the source. The source sends the call detail records or usage data to the Data Mediation system over a data connection. These records are collected and grouped into a data file.

Primary data

Primary data files reside on both the source and the Data Mediation system. The primary data files located on the source contain data that has not been sent to the Data Mediation system. The primary data files located on the Data Mediation system contain data that has been sent from a source.

Secondary data

Secondary data resides only on the source; not all switches support secondary data. The source marks primary data files as secondary data after it receives the file confirmation message from the Data Mediation system.

Understanding Data Storage

The Data Mediation system collects call detail records or usage data from a source and stores the records as files in a temporary directory. When data collection is complete, the files are moved from the temporary directory to a primary directory. The files remain in the primary directory until they are transmitted to all designated destinations. When transmission is complete, the Data Mediation system moves the files to the tertiary directory.

File names are systematically assigned based on the source type generating the original call detail record or usage data. Each source type uses a unique file naming convention.

Examples

Examples of billing directory names for temporary, primary, and tertiary data storage follow:

- /billing1/source_name/tmp
- /billing1/source_name/primary
- /billing1/source_name/tertiary

References

→ For information about file name conventions for each source type, see <u>"File Name Conventions" (1-3)</u> in the *File Name* Conventions Reference Guide

2 Sources Application Pages

This chapter describes the Sources application pages, including information on:

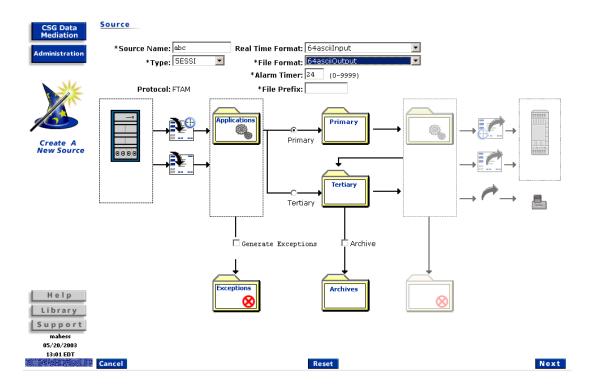
- Opening the Sources pages
- Creating sources
- Updating sources

Create a New Source Wizard

After you "Open the Create a New Source Wizard" (3-64), you can "Create a New Source" (3-65).

Create a New Source Wizard – Page 1

Figure 2 Create a New Source Wizard - Page 1



Elements

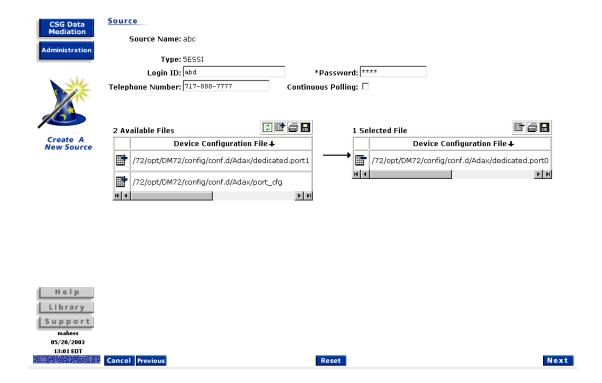
These elements are on this page and are described in the *GUI Elements Reference Guide*:

- Alarm Timer
- Archive
- File Format
- File Prefix
- File Prefix (for 5ESSI type)
- Generate Exceptions
- Max Blocks in CLDS
- Primary
- Protocol (for Sources)
- Real Time Format
- Source Component ID

- Source Name
- <u>Tertiary</u>
- Type (for Sources)

Create a New Source Wizard for 5ESSI Type – Page 2

Figure 3 Create a New Source Wizard for 5ESSI Type - Page 2



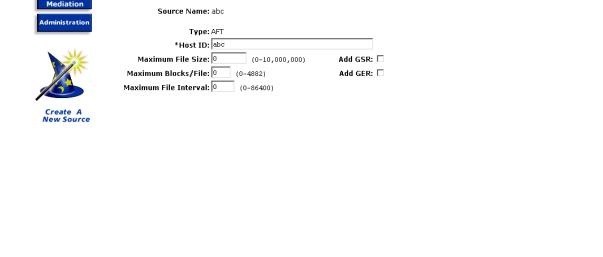
Elements

- Continuous Polling
- Device Configuration File
- Login ID
- Password (for Sources)
- Source Name
- Telephone Number
- Type (for System Parameters)

Next

Create a New Source Wizard for AFT Type – Page 2

Figure 4 Create a New Source Wizard for AFT Type - Page 2



Elements

Cancel Previous

Library
Support
mahess
05/20/2003
13:01 EDT

Source

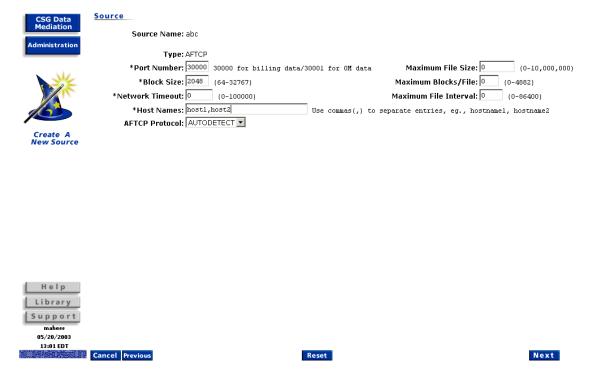
These elements are on this page and are described in the *GUI Elements Reference Guide*:

Reset

- Add GER
- Add GSR
- Host ID
- Maximum Blocks/File
- Maximum File Interval
- Maximum File Size (for the Source Type Parameters Page)
- Source Name
- Type (for Sources)

Create a New Source Wizard for AFTCP Type - Page 2

Figure 5 Create a New Source Wizard for AFTCP Type – Page 2

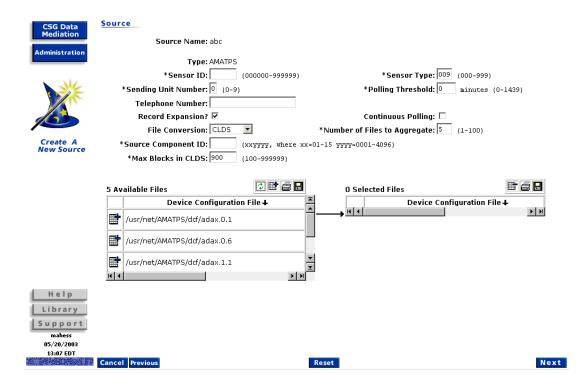


Elements

- AFTCP Protocol
- Block Size
- Host Names
- Maximum Blocks/File
- Maximum File Interval
- Maximum File Size (for the Source Type Parameters Page)
- Network Timeout
- Port Number (for Sources)
- Source Name
- Type (for Sources)

Create a New Source Wizard for AMATPS Type – Page 2

Figure 6 Create a New Source Wizard for AMATPS Type - Page 2

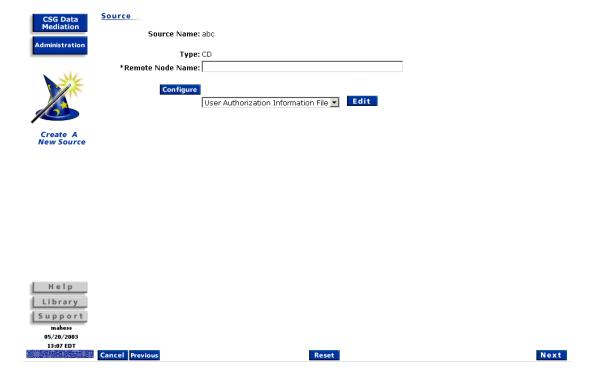


Elements

- Continuous Polling
- Device Configuration File
- File Conversion
- File Format
- Max Blocks in CLDS
- Number of Files to Aggregate
- Polling Threshold
- Record Expansion
- Sending Unit Number
- Sensor ID
- Sensor Type
- Source Component ID
- Source Name
- <u>Telephone Number</u>
- Type (for Sources)

Create a New Source Wizard for CD Type – Page 2

Figure 7 Create a New Source Wizard for CD Type - Page 2

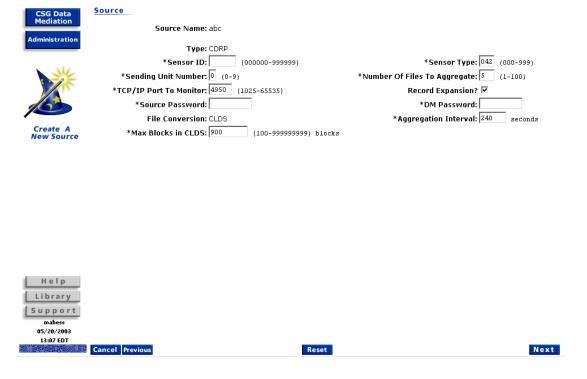


Elements

- Configure Button
- Edit Button
- Remote Node Name
- Source Name
- Type (for Sources)

Create a New Source Wizard for CDRP Type - Page 2

Figure 8 Create a New Source Wizard for CDRP Type - Page 2

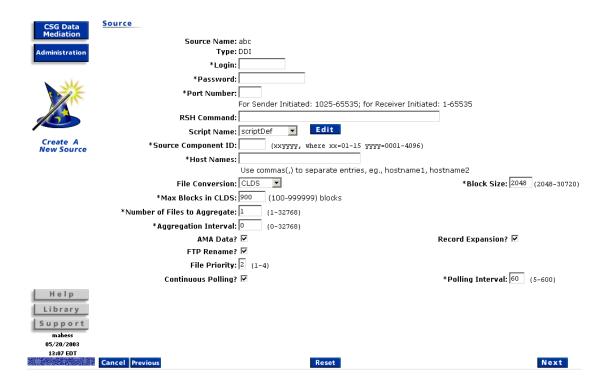


Elements

- Aggregation Interval
- DM Password
- File Conversion
- Max Blocks in CLDS
- Number of Files to Aggregate
- Record Expansion
- Sending Unit Number
- Sensor ID
- Sensor Type
- Source Name
- Source Password
- TCP/IP Port to Monitor
- Type (for Sources)

Create a New Source Wizard for DDI Type - Page 2

Figure 9 Create a New Source Wizard for DDI Type – Page 2



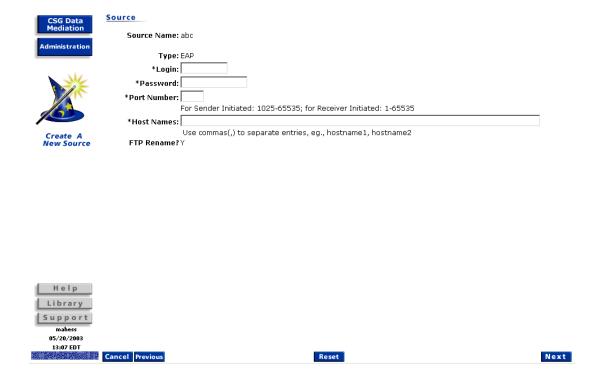
Elements

- Aggregation Interval
- AMA Data
- Continuous Polling
- Edit Button
- File Priority
- FTP Rename
- Host Names
- File Conversion
- Login
- Number of Files to Aggregate
- Password (for Sources)
- Polling Interval
- Port Number (for Sources)
- Record Expansion
- RSH Command

- Script Name
- Source Component ID
- Source Name
- Type (for Sources)

Create a New Source Wizard for EAP Type – Page 2

Figure 10 Create a New Source Wizard for EAP Type - Page 2

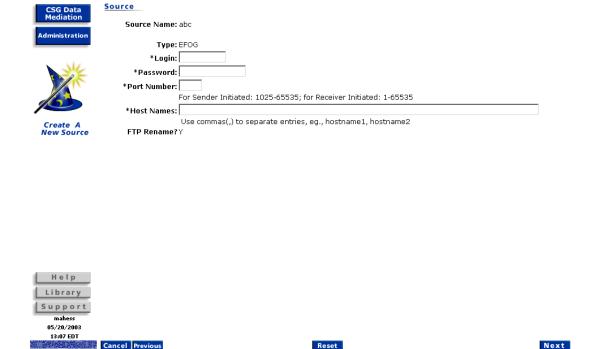


Elements

- FTP Rename
- Host Names
- Login
- Password (for Sources)
- Port Number (for Sources)
- Source Name
- Type (for Sources)

Create a New Source Wizard for EFOG Type – Page 2

Figure 11 Create a New Source Wizard for EFOG Type - Page 2

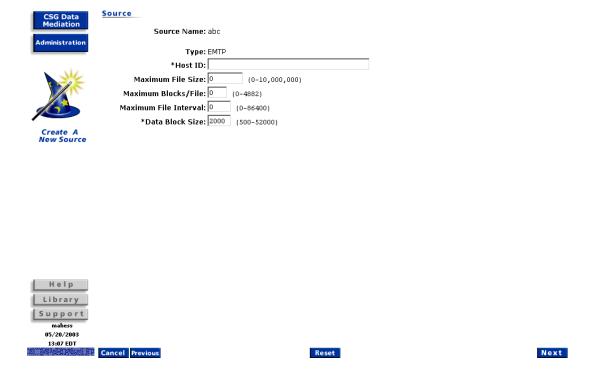


Elements

- FTP Rename
- Host Names
- Login
- Password (for Sources)
- Port Number (for Sources)
- Source Name
- Type (for Sources)

Create a New Source Wizard for EMTP Type – Page 2

Figure 12 Create a New Source Wizard for EMTP Type – Page 2

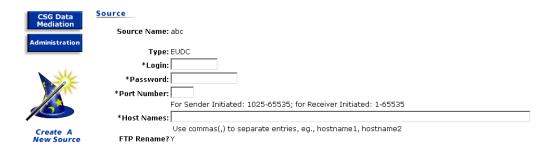


Elements

- Data Block Size
- Host ID
- Maximum Blocks/File
- Maximum File Interval
- Maximum File Size (for the Source Type Parameters Page)
- Source Name
- Type (for Sources)

Create a New Source Wizard for EUDC Type – Page 2

Figure 13 Create a New Source Wizard for EUDC Type - Page 2



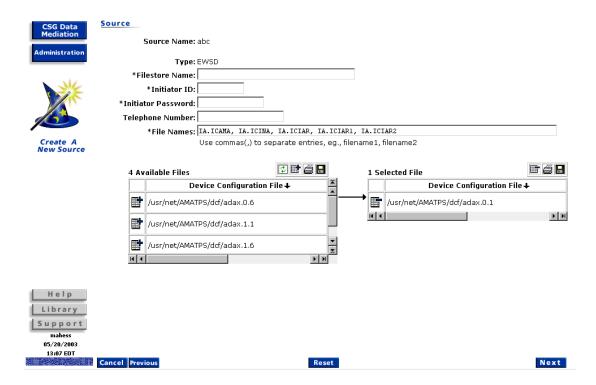


Elements

- FTP Rename
- Host Names
- Login
- Password (for Sources)
- Port Number (for Sources)
- Source Name
- Type (for Sources)

Create a New Source Wizard for EWSD Type - Page 2

Figure 14 Create a New Source Wizard for EWSD Type – Page 2

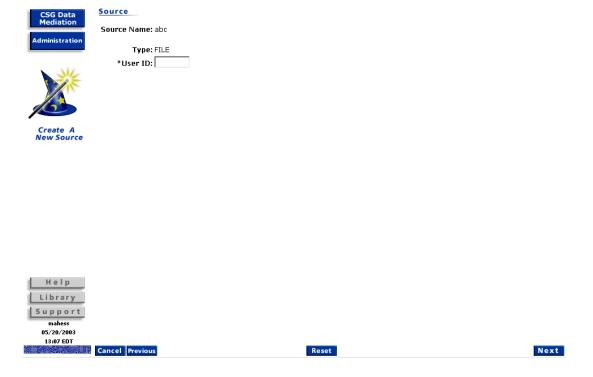


Elements

- Device Configuration File
- File Names
- Filestore Name
- Initiator ID
- Initiator Password
- Source Name
- Telephone Number
- Type (for Sources)

Create a New Source Wizard for FILE Type – Page 2

Figure 15 Create a New Source Wizard for FILE Type – Page 2

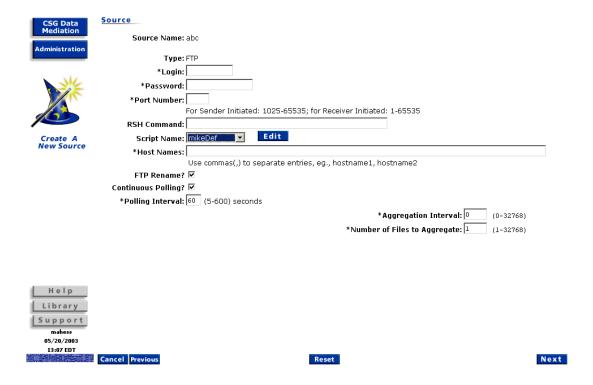


Elements

- Source Name
- Type (for Sources)
- <u>User ID (for Sources)</u>

Create a New Source Wizard for FTP Type - Page 2

Figure 16 Create a New Source Wizard for FTP Type – Page 2

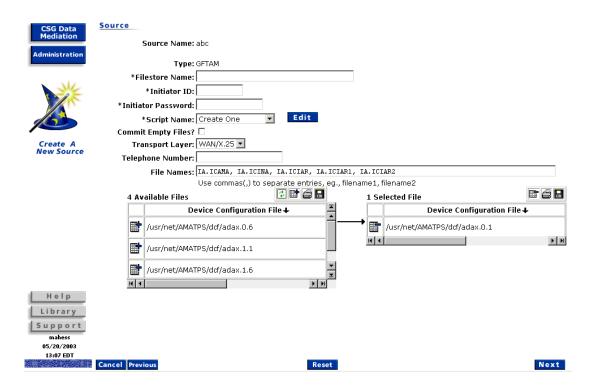


Elements

- Aggregation Interval
- Continuous Polling
- FTP Rename
- Host Names
- Login
- Number of Files to Aggregate
- Password (for Sources)
- Polling Interval
- Port Number (for Sources)
- RSH Command
- Script Name
- Source Name
- Type (for Sources)

Create a New Source Wizard for GFTAM Type – Page 2

Figure 17 Create a New Source Wizard for GFTAM Type – Page 2

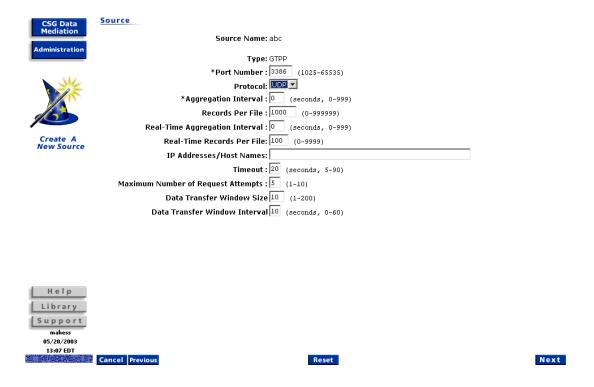


Elements

- Commit Empty Files
- Device Configuration File
- File Names
- Filestore Name
- Initiator ID
- Initiator Password
- Script Name
- Source Name
- <u>Telephone Number</u>
- Transport Layer
- Type (for Sources)

Create a New Source Wizard for GTPP Type - Page 2

Figure 18 Create a New Source Wizard for GTPP Type - Page 2

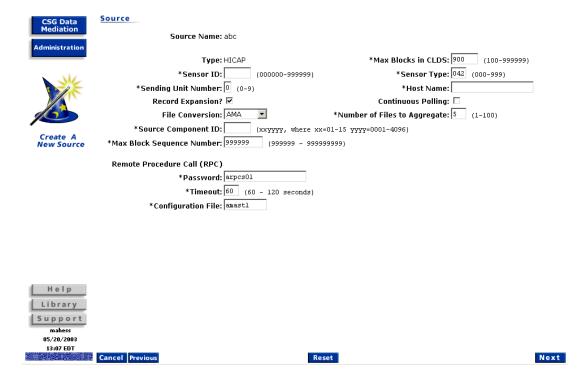


Elements

- Aggregation Interval
- Data Transfer Window Interval
- Data Transfer Window Size
- IP Addresses/Host Names
- Maximum Number of Request Attempts
- Port Number (for Sources)
- Protocol (GTPP)
- Real-Time Aggregation Interval
- Real-Time Records Per File (for GTPP types)
- Records Per File
- Source Name
- Timeout
- Type (for Sources)

Create a New Source Wizard for HICAP Type - Page 2

Figure 19 Create a New Source Wizard for HICAP Type - Page 2



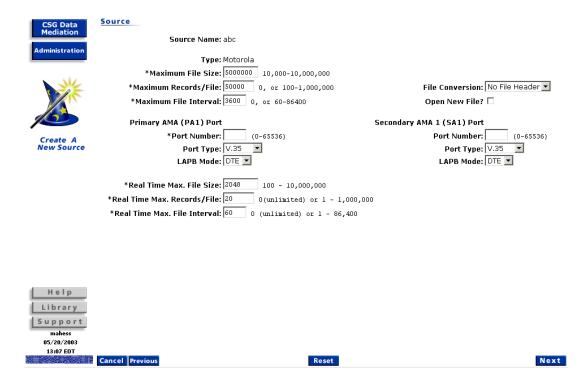
Elements

- Configuration File
- Continuous Polling
- File Conversion
- Host Name (for Sources)
- Max Blocks in CLDS
- Max Block Sequence Number
- Number of Files to Aggregate
- Password (for Sources)
- Record Expansion
- <u>Sending Unit Number</u>
- Sensor ID
- Sensor Type
- Source Component ID
- Source Name
- Timeout

• Type (for Sources)

Create a New Source Wizard for Motorola Type – Page 2

Figure 20 Create a New Source Wizard for Motorola Type - Page 2

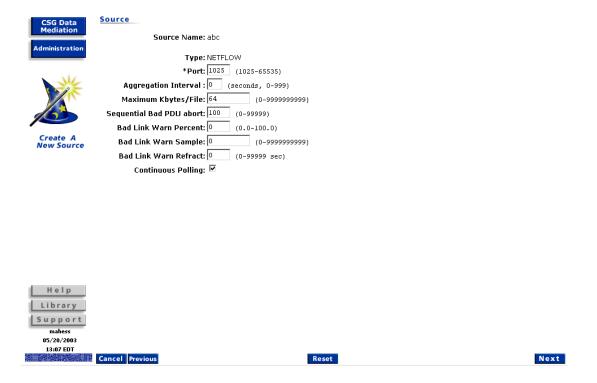


Elements

- File Conversion
- LAPB Mode
- Maximum File Interval
- Maximum File Size (for the Source Type Parameters Page)
- Maximum Records/File
- Open New File?
- Port Number (for Sources)
- Port Type
- Real Time Max. File Interval
- Real Time Max. File Size
- Real Time Max. Records/File
- Source Name
- Type (for Sources)

Create a New Source Wizard for NETFLOW Type - Page 2

Figure 21 Create a New Source Wizard for NETFLOW Type - Page 2



Elements

- Aggregation Interval
- Bad Link Warn Percent
- Bad Link Warn Refract
- Bad Link Warn Sample
- Continuous Polling
- Maximum Kbytes/File
- Port
- <u>Sequential Bad PDU abort</u>
- Source Name
- Type (for Sources)

Create a New Source Wizard for REPORT Type – Page 2

Figure 22 Create a New Source Wizard for REPORT Type - Page 2



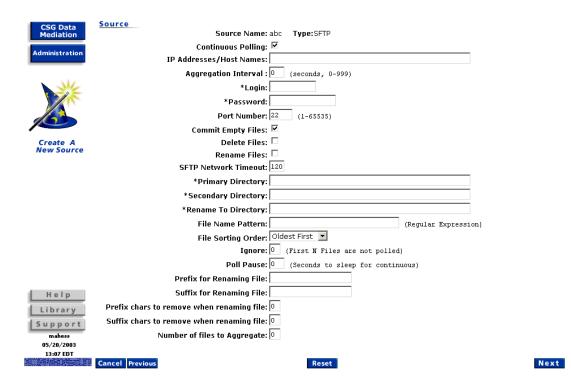


Elements

- <u>Custom Report Name</u>
- Destination
- Report Interval (for Sources)
- Report Latency Interval
- Report Name
- Report Type (for Sources)
- Sort by (for Source Type Parameters Page)
- Source
- Source Name
- Type (for Sources)

Create a New Source Wizard for SFTP Type – Page 2

Figure 23 Create a New Source Wizard for SFTP Type – Page 2



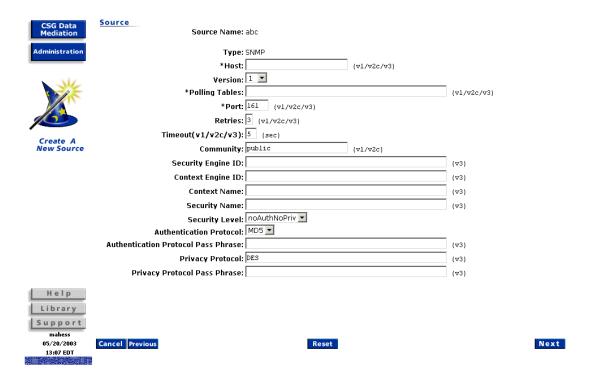
Elements

- Aggregation Interval
- Commit Empty Files
- Continuous Polling
- Delete Files
- File Name Pattern
- File Sorting Order
- Ignore
- IP Addresses/Host Names
- Login
- Number of Files to Aggregate
- Password (for Sources)
- Poll Pause
- Port Number (for Sources)
- Prefix chars to remove when renaming file
- Prefix for Renaming File

- Primary Directory
- Rename Files?
- Rename To Directory
- Secondary Directory
- <u>SFTP Network Timeout</u>
- Source Name
- Suffix chars to remove when renaming file
- Suffix for Renaming File
- Type (for Sources)

Create a New Source Wizard for SNMP Type - Page 2

Figure 24 Create a New Source Wizard for SNMP Type – Page 2



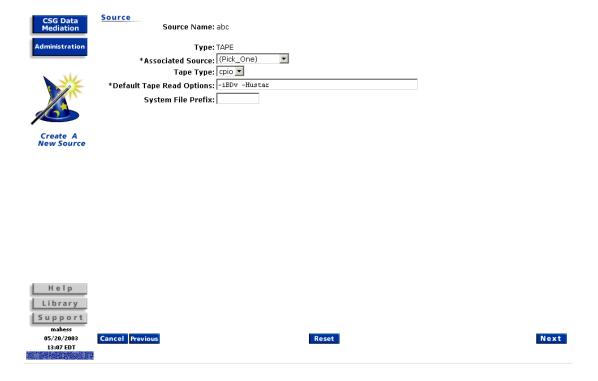
Elements

- Authentication Protocol
- Authentication Protocol Pass Phrase
- Community
- Context Engine ID (v3)
- Context Name (v3)
- Host
- Polling Tables (v1/v2/v3)
- Port
- Privacy Protocol (v3)
- Privacy Protocol Pass Phrase (v3)
- Retries
- Security Engine ID
- Security Level
- Security Name
- Source Name

- <u>Timeout</u>
- Type (for Sources)
- <u>Version</u>

Create a New Source Wizard for TAPE Type – Page 2

Figure 25 Create a New Source Wizard for TAPE Type – Page 2

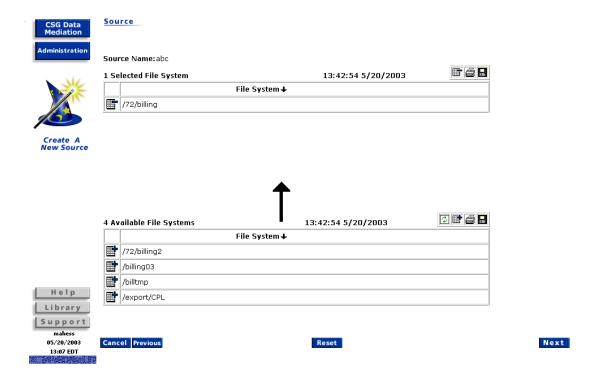


Elements

- Associated Source
- Default Tape Read Options
- Source Name
- System File Prefix
- <u>Tape Type</u>
- Type (for Sources)

Create a New Source Wizard- Page 3

Figure 26 Create a New Source Wizard - Page 3

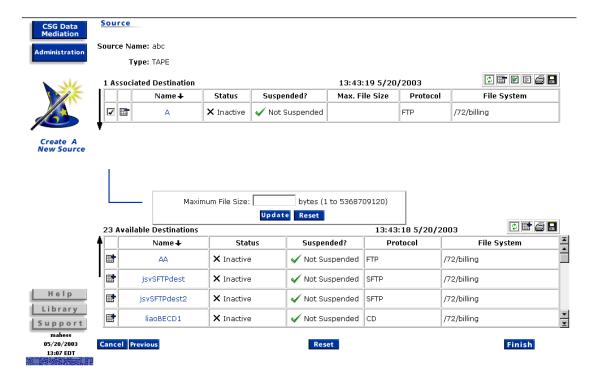


Elements

- File System(s)
- Source Name

Create a New Source Wizard - Page 4

Figure 27 Create a New Source Wizard - Page 4



- File System (for Data File Storage)
- Maximum File Size (for the Source Destinations Page)
- Name
- Protocol (for Sources)
- Source Name
- Status
- Suspended?
- Type (for Sources)

Open the Create a New Source Wizard

To open the Create a New Source wizard:

- **1.** Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **2.** Click the **New** icon.



The Create a New Source Wizard opens.

Create a New Source

To create a new source:

- 1. Follow the instructions to "Open the Create a New Source Wizard" (3-64).
- **2.** Fill out these form fields:
 - » Source Name
 - » Real Time Format
 - » Type (for Sources)
 - » File Format
 - » Alarm Timer
 - » File Prefix
 - » Primary
 - » Tertiary
 - » Generate Exceptions
 - » Archive
- **3.** Click **Next**. The next page opens.
- **4.** Fill out the form fields for the appropriate type. See the appropriate page description for a list of form fields:
 - » Create a New Source Wizard for 5ESSI Type Page 2
 - » Create a New Source Wizard for AFT Type Page 2
 - » Create a New Source Wizard for AFTCP Type Page 2
 - » Create a New Source Wizard for AMATPS Type Page 2
 - » Create a New Source Wizard for CD Type Page 2
 - » Create a New Source Wizard for CDRP Type Page 2
 - » Create a New Source Wizard for DDI Type Page 2
 - » Create a New Source Wizard for EAP Type Page 2
 - » Create a New Source Wizard for EFOG Type Page 2
 - » Create a New Source Wizard for EMTP Type Page 2
 - » Create a New Source Wizard for EUDC Type Page 2
 - » Create a New Source Wizard for EWSD Type Page 2
 - » Create a New Source Wizard for FILE Type Page 2
 - » Create a New Source Wizard for FTP Type Page 2
 - » Create a New Source Wizard for GFTAM Type Page 2
 - » Create a New Source Wizard for GTPP Type Page 2
 - » <u>Create a New Source Wizard for HICAP Type Page 2</u>
 - » Create a New Source Wizard for Motorola Type Page 2

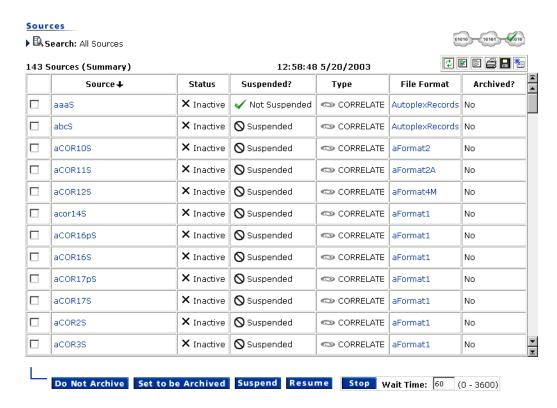
- » Create a New Source Wizard for NETFLOW Type Page 2
- » Create a New Source Wizard for REPORT Type Page 2
- » Create a New Source Wizard for SNMP Type Page 2
- » Create a New Source Wizard for TAPE Type Page 2
- **5.** Click **Next**. The next page opens.
- **6.** Add files from the Available System Files table to the Selected System Files table.
- **7.** Click **Next**. The next page opens.
- **8.** Add files from the Available Destinations table to the Associated Destinations table.
- **9.** Fill out this form field:
 - » Maximum File Size (for the Source Type Parameters Page)
- **10.** Click **Finish**.

Sources Page

After you "Open the Source Page" (4-69), you can:

- "Go to the Create a New Source Wizard" (4-70)
- "Go to an Existing Source Page" (4-71)
- "Suspend Data Collection" (4-72)
- "Resume Data Collection" (4-73)
- "Set a Source to be Archived" (4-74)
- "Set a Source to Do Not Archive" (4-75)

Figure 28 Sources Page



Elements

- Archived?
- Do Not Archive Button
- File Format
- Resume Button
- Set to be Archived Button
- Source

68 Sources Page

- <u>Status</u>
- <u>Stop Button</u>
- Suspend Button
- Suspended?
- Type (for Sources)
- Wait Time

Sources Page 69

Open the Source Page

To open the Source page:

1. Click **Sources** on the Data Mediation System Launch page. The Sources page opens.

Go to the Create a New Source Wizard

To go to the Create a New Source wizard:

1. Follow the instructions to "Open the Source Page" (4-69).

2. Click the **New** icon.



The Create a New Source Wizard opens.

Go to an Existing Source Page

To go to an existing Source page:

- **1.** Follow the instructions to "Open the Source Page" (4-69).
- **2.** Click the <u>Source</u> in the table. The Source page opens.

Suspend Data Collection

To suspend data collection:

- **1.** Follow the instructions to "Open the Source Page" (4-69).
- **2.** Select the checkbox beside the <u>Source</u> in the table.
- **3.** Click **Suspend**. A confirmation dialog box opens.
- **4.** Click **OK**. The data collection for the source is suspended.

Resume Data Collection

To resume data collection:

- **1.** Follow the instructions to "Open the Source Page" (4-69).
- **2.** Select the checkbox beside the <u>Source</u> in the table.
- **3.** Click **Resume**. A confirmation dialog box opens.
- **4.** Click **OK**. The data collection for the source is resumed.

Set a Source to be Archived

To set a source to be archived:

- **1.** Follow the instructions to "Open the Source Page" (4-69).
- **2.** Select the checkbox beside the <u>Source</u> in the table.
- **3.** Click **Set to be Archived**. A confirmation dialog box opens.
- **4.** Click **OK**. The Source is set to be archived.

References

For information on archiving sources, see "Open the Create a New Archive Wizard" (8-89) or "Create a New Archive" (8-90) in this guide

Set a Source to Do Not Archive

To set a source to Do Not Archive:

- **1.** Follow the instructions to "Open the Source Page" (4-69).
- **2.** Select the checkbox beside the <u>Source</u> in the table.
- **3.** Click **Do Not Archive**. A confirmation dialog box opens.
- **4.** Click **OK**. The source is set not to be archived.

Stop a Data Collection

Before you can stop a data collection the source must be in Active status.

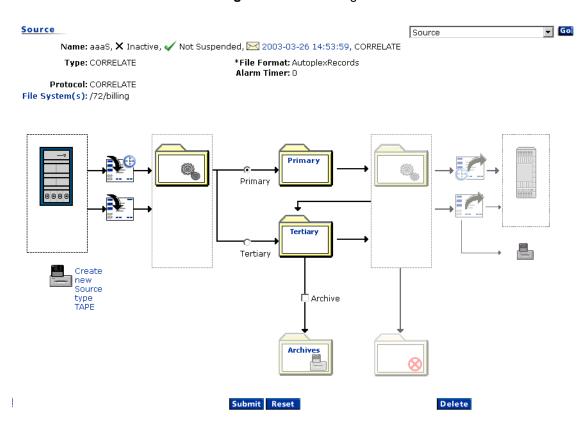
To stop a data collection:

- **1.** Follow the instructions to "Open the Source Page" (4-69).
- **2.** Select the checkbox beside the <u>Source</u> in the table.
- **3.** Click **Stop**. A confirmation dialog box opens.
- **4.** Click **OK**. The data collection is stopped.

After you "Open an Existing Source Page" (5-79), you can:

- "Go to Another Page in the Source" (5-81)
- "Update the Source Page" (5-80)

Figure 29 Source Page



Elements

These elements are on this page and are described in the *Application Elements Reference Guide*:

- Alarm Timer
- Archive
- Assigned Site Name
- File Format
- File Prefix
- File Prefix (for 5ESSI type)
- File System(s)
- Generate Exceptions
- Name

- <u>Primary</u>
- Protocol (for Sources)
- Real Time Format
- Source Name
- Tertiary
- Type (for Sources)

References

- → For more information on the disaster recovery feature, see "Working with the Disaster Recovery Feature" (1-6) in the Administration Guide
- → For more information on common support source interfaces, see <u>Table 2, "Most Commonly Supported Source Interfaces"</u> (-13) in this user guide
- → For more information on the System Parameters page for exception sources, see "System Parameters Page" (4-35) in the Administration Guide
- → For more information on real-time data processing, see "Understanding Real Time Data Processing" (1-13) in the Destinations User Guide

Open an Existing Source Page

To open an existing Source page:

1. Click **Sources** on the Data Mediation System Launch page. The Sources page opens.

2. Click the <u>Source</u> in the table. The Source page opens.

Update the Source Page

To update the Source page:

- 1. Follow the instructions to "Open an Existing Source Page" (5-79).
- **2.** Fill out these form fields, if availabe for your source type:
 - » Alarm Timer
 - » Archive
 - » File Format
 - » File Prefix
 - » File System(s)
 - » Generate Exceptions
 - » Primary
 - » Protocol (for Sources)
 - » Real Time Format
 - » <u>Tertiary</u>
- 3. Click Submit.

Go to Another Page in the Source

To go to another page in the Source:

- **1.** Click the **Go** drop-down menu.
- **2.** Select one of these source pages, if available for the source type:
 - » Data Collection Controls
 - » Data Collection Schedules
 - » Source Application Associations
 - » Source Destination Associations
 - » Source File Systems
 - » Source Site Information
 - » Source Type Parameters

Source File Systems Page

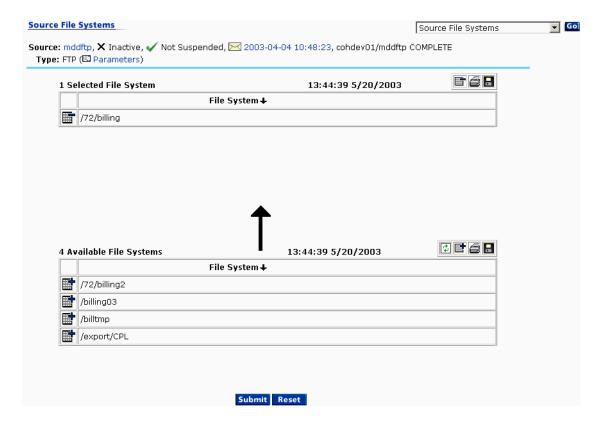
The Source File Systems page lets you specify the file systems where data will be stored for each source.

After you "Open the Source File Systems Page" (6-84), you can:

- "Add a File System" (6-85)
- "Remove File Systems" (6-86)
- "Go to Another Page in the Source" (5-81)

This page is not available for SEARCH sources.

Figure 30 Source File Systems Page



Elements

These elements are on this page and are described in the *Application Elements Reference Guide*:

- File System (for Data File Storage)
- Source
- Type (for Sources)

Open the Source File Systems Page

To open the Source File Systems page:

- **1.** Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **2.** Click the <u>Source</u> in the table. The Source page opens.
- **3.** Select **File Systems** from the **Go** menu. The Source File Systems page opens.

Add a File System

To add a file system:

- 1. Follow the instructions to "Open the Source File Systems Page" (6-84).
- **2.** To add the file system to the Selected System Files table, click the icon beside the file in the Available System Files table.
- 3. Click Submit.

Remove File Systems

To remove file systems:

- 1. Follow the instructions to "Open the Source File Systems Page" (6-84).
- **2.** To move the file system to the Available Systems Files table, click the icon beside the file system in the Selected Systems Files table.
- 3. Click Submit.

Source Type Parameters Page

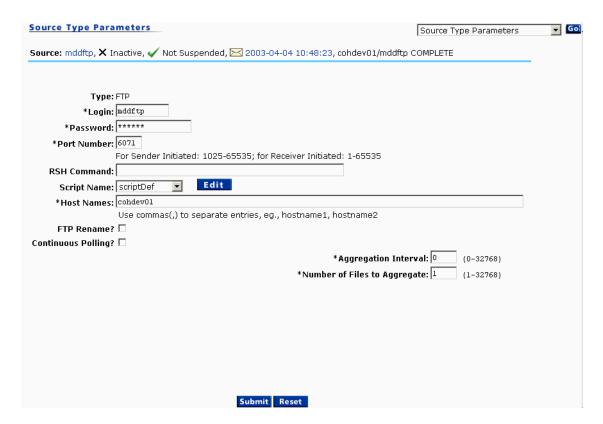
The Source Type Parameters page lets you update parameters specific to each page type.

After you Open the Source Type Parameters Page, you can:

- <u>Update the 5ESSI Source Type</u>
- Update the AFT Source Type
- <u>Update the AFTCP Source Type</u>
- <u>Update the AMATPS Source Type</u>
- Update the CD Source Type
- Update the CDRP Source Type
- Update the DDI Source Type
- Update the EAP Source Type
- <u>Update the EFOG Source Type</u>
- <u>Update the EMTP Source Type</u>
- <u>Update the EUDC Source Type</u>
- Update the EWSD Source Type
- <u>Update the Exception Source Type</u>
- <u>Update the FILE Source Type</u>
- Update the FTP Source Type
- Update the GFTAM Source Type
- <u>Update the GTPP Source Type</u>
- <u>Update the HICAP Source Type</u>
- <u>Update the Motorola Source Type</u>
- Update the NETFLOW Source Type
- Update the Report Source Type
- Update the SFTP Source Type
- <u>Update the SNMP Source Type</u>
- <u>Update the Tape Source Type</u>

This page is not available for Correlation and Search type sources.

Figure 31 Source Type Parameters page



Open the Source Type Parameters Page

To open the Source Type Parameters page:

- 1. Click the **Sources** icon from the Data Mediation System Launch page.
- **2.** Click the <u>Source</u> in the table. There are various source types, including:
 - » 5ESSI
 - » AFT
 - » AFTCP
 - » AMATPS
 - » CD
 - » CDRP
 - » CORRELATE
 - » DDI
 - » EAP
 - » EFOG
 - » EMTP
 - » EUDC
 - » EWSD
 - » EXCEPTION
 - » FILE
 - » FTP
 - » GFTAM
 - » GTPP
 - » HICAP
 - » Motorola
 - » NETFLOW
 - » REPORT
 - » SEARCH
 - » SFTP
 - » SNTP
 - » TAPE
 - » TRACER
- **3.** Select **Source Type Parameters** from the Go menu. The appropriate Source Type Parameters page opens.

Update the 5ESSI Source Type

To update the 5ESSI source type:

- 1. Follow the instructions to Open the Source Type Parameters Page.
- **2.** Update these form fields, if necessary:
 - » Login ID
 - » <u>Telephone Number</u>
 - » Password (for Sources)
 - » Continuous Polling
- **3.** Move files to the Selected Files table by clicking a file in the Available Files table.
- 4. Click Submit.

Update the AFT Source Type

To update the AFT source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Host ID
 - » Maximum File Size (for the Source Type Parameters Page)
 - » Maximum Blocks/File
 - » Maximum File Interval
 - » Add GSR
 - » Add GER
- 3. Click Submit.

Update the AFTCP Source Type

To update the AFTCP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Port Number (for Sources)
 - » Block Size
 - » Network Timeout
 - » Host Names
 - » AFTCP Protocol
 - » Maximum File Size (for the Source Type Parameters Page)
 - » Maximum Blocks/File
 - » Maximum File Interval
- 3. Click Submit.

Update the AMATPS Source Type

To update the AMATPS source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Sensor ID
 - » Sending Unit Number
 - » Telephone Number
 - » Record Expansion
 - » File Conversion
 - » Source Component ID
 - » Max Blocks in CLDS
 - » Sensor Type
 - » Polling Threshold
 - » Continuous Polling
 - » Number of Files to Aggregate
- **3.** Move files to the Selected Files table by clicking a file in the Available Files table.
- 4. Click Submit.

Update the CD Source Type

To update the CD source type:

- 1. Follow the instructions to Open the Source Type Parameters Page.
- **2.** Update these form fields, if necessary:
 - » Remote Node Name
- **3.** To configure the file, click **Configure**, then click **Edit**.
- **4.** Update the file.
- 5. Click Submit.

Update the CDRP Source Type

To update the CDRP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Sensor ID
 - » Sending Unit Number
 - » TCP/IP Port to Monitor
 - » Source Password
 - » Max Blocks in CLDS
 - » Sensor Type
 - » Number of Files to Aggregate
 - » Record Expansion
 - » <u>DM Password</u>
 - » Aggregation Interval
- 3. Click Submit.

Update the DDI Source Type

To update the DDI source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Login
 - » Password (for Sources)
 - » Port Number (for Sources)
 - » RSH Command
 - » Script Name
 - » Source Component ID
 - » Host Names
 - » File Conversion
 - » Max Blocks in CLDS
 - » Number of Files to Aggregate
 - » Aggregation Interval
 - » AMA Data
 - » FTP Rename
 - » File Priority
 - » Continuous Polling
 - » Block Size
 - » Record Expansion
 - » Polling Interval
- 3. Click Submit.

Update the EAP Source Type

To update the EAP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Login
 - » Password (for Sources)
 - » Port Number (for Sources)
 - » Host Names
- 3. Click Submit.

Update the EFOG Source Type

To update the EFOG source type:

- 1. Follow the instructions to Open the Source Type Parameters Page.
- **2.** Update these form fields, if necessary:
 - » Login
 - » Password (for Sources)
 - » Port Number (for Sources)
 - » Host Names
- 3. Click Submit.

Update the EMTP Source Type

To update the EMTP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Host ID
 - » Maximum File Size (for the Source Type Parameters Page)
 - » Maximum Blocks/File
 - » Maximum File Interval
 - » Data Block Size
- 3. Click Submit.

Update the EUDC Source Type

To update the EUDC source type:

- 1. Follow the instructions to Open the Source Type Parameters Page.
- **2.** Update these form fields, if necessary:
 - » Login
 - » Password (for Sources)
 - » Port Number (for Sources)
 - » Host Names
- 3. Click Submit.

Update the EWSD Source Type

To update the EWSD source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Filestore Name
 - » Initiator ID
 - » <u>Initiator Password</u>
 - » <u>Telephone Number</u>
 - » File Names
- **3.** Move files to the Selected Files table by clicking a file in the Available Files table.
- 4. Click Submit.

Update the Exception Source Type

To update the Exception source type:

- 1. Follow the instructions to Open the Source Type Parameters Page.
- **2.** Update these form fields, if necessary:
 - » Commit Files As . . .
- 3. Click Submit.

Update the FILE Source Type

To update the FILE source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » <u>User ID (for Sources)</u>
- 3. Click Submit.

Update the FTP Source Type

To update the FTP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - Login
 - Password (for Sources)
 - Port Number (for Sources)
 - RSH Command
 - Script Name
 - Host Names
 - FTP Rename
 - Continuous Polling
 - Polling Interval
 - Aggregation Interval
 - Number of Files to Aggregate
- 3. Click Submit.

Update the GFTAM Source Type

To update the GFTAM source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Filestore Name
 - » Initiator ID
 - » <u>Initiator Password</u>
 - » Script Name
 - » Commit Empty Files
 - » Transport Layer
 - » Telephone Number
 - » File Names
- **3.** Move files to the Selected Files table by clicking a file in the Available Files table.
- 4. Click Submit.

Update the GTPP Source Type

To update the GTPP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Aggregation Interval
 - » Maximum Number of Request Attempts
 - » Port Number (for Sources)
 - » <u>Timeout</u>
 - » IP Addresses/Host Names
 - » Protocol (for Sources)
 - » Records Per File
 - » Real-Time Aggregation Interval
 - » Real-Time Records Per File (for GTPP types)
 - » Data Transfer Window Interval
 - » Data Transfer Window Size
- 3. Click Submit.

Update the HICAP Source Type

To update the HICAP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Sensor ID
 - » Sending Unit Number
 - » Record Expansion
 - » File Conversion
 - » Source Component ID
 - » Max Blocks in CLDS
 - » Sensor Type
 - » Host Name (for Sources)
 - » Continuous Polling
 - » Number of Files to Aggregate
 - » Password (for Sources)
 - » Timeout
 - » Configuration File
 - » Max Block Sequence Number
- 3. Click **Submit**.

Update the Motorola Source Type

To update the Motorola source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Maximum File Size (for the Source Type Parameters Page)
 - » Maximum Records/File
 - » Maximum File Interval
 - » File Conversion
 - » Open New File?
 - » Port Number (for Sources)
 - » Port Type
 - » <u>LAPB Mode</u>
 - » Real Time Max. File Size
 - » Real Time Max. Records/File
 - » Real Time Max. File Interval
 - » Port Number (for Sources)
 - » Port Type
 - » LAPB Mode
- 3. Click Submit.

Update the NETFLOW Source Type

To update the NETFLOW source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Continuous Polling
 - » Aggregation Interval
 - » Bad Link Warn Refract
 - » Bad Link Warn Sample
 - » Bad Link Warn Percent
 - » Maximum Kbytes/File
 - » Port
 - » Sequential Bad PDU abort
- 3. Click Submit.

Update the Report Source Type

To update the Report source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Report Name
 - » Report Type (for Sources)
 - » Source
 - » Sort by (for Source Type Parameters Page)
 - » Custom Report Name
 - » Report Interval
 - » Report Latency Interval
- 3. Click Submit.

Update the SFTP Source Type

To update the SFTP Soure Type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Continuous Polling
 - » Aggregation Interval
 - » Commit Empty Files
 - » Primary Directory
 - » Rename To Directory
 - » Secondary Directory
 - » File Sorting Order
 - » File Name Pattern
 - » IP Addresses/Host Names
 - » <u>Ignore</u>
 - » Login
 - » Password (for Sources)
 - » Poll Pause
 - » Prefix for Renaming File
 - » Suffix for Renaming File
 - » Prefix chars to remove when renaming file
 - » Suffix chars to remove when renaming file
 - » Delete Files
 - » Number of Files to Aggregate
 - » Port Number (for Sources)
 - » Rename Files?
 - » SFTP Network Timeout
- 3. Click Submit.

Update the SNMP Source Type

To update the SNMP source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Host
 - » Version
 - » Polling Tables (v1/v2/v3)
 - » Port
 - » Retries
 - » <u>Timeout</u>
 - » Community
 - » Security Engine ID
 - » Context Engine ID (v3)
 - » Context Name (v3)
 - » Security Name
 - » Security Level
 - » Authentication Protocol
 - » Authentication Protocol Pass Phrase
 - » Privacy Protocol (v3)
 - » Privacy Protocol Pass Phrase (v3)
- 3. Click Submit.

Update the Tape Source Type

To update the Tape source type:

- **1.** Follow the instructions to <u>Open the Source Type Parameters Page</u>.
- **2.** Update these form fields, if necessary:
 - » Associated Source
 - » <u>Tape Type</u>
 - » Default Tape Read Options
 - » System File Prefix
- 3. Click Submit.

Read From a Tape Wizard

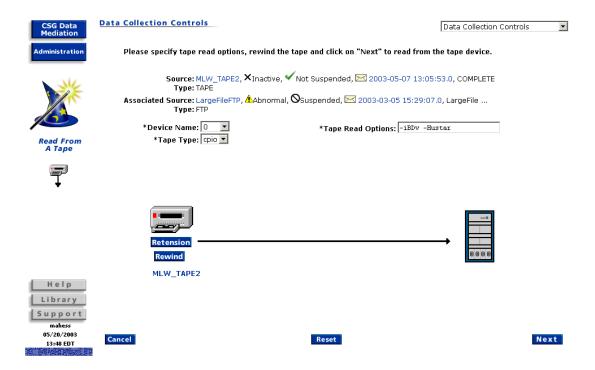
This wizard lets you read data from tapes and place the data in primary or tertiary data file directories for a specific TAPE source. This feature is used as a backup system when the network connection between the source and Data Mediation System system is not functioning. Before you use this feature, make sure that your data mediation system is equipped with an optional tape drive. Other uses may require you to purchase additional source interface elements.

After you "Open the Data Collection Tape Wizard" (8-120), you can:

- "Run the Data Collection Tape Wizard" (8-121)
- "Go to Another Page in the Source" (5-81)

The TAPE source type is associated with a standard source. The system stores the tape data under a Tape source because it cannot store files of differing file formats under the same source file directory. The file format of the data on the tape may be different than the file format of the originally polled data.

Figure 32 Run From a Tape Wizard — Page 1



Elements

- Associated Source
- Device Name
- Have IBM Header/Trailer?
- Input Tape Format
- Maximum File Size to Create
- Retension Button
- Rewind Button
- Source
- <u>Tape ID</u>
- Tape Read Options
- Tape Type
- Type (for Sources)

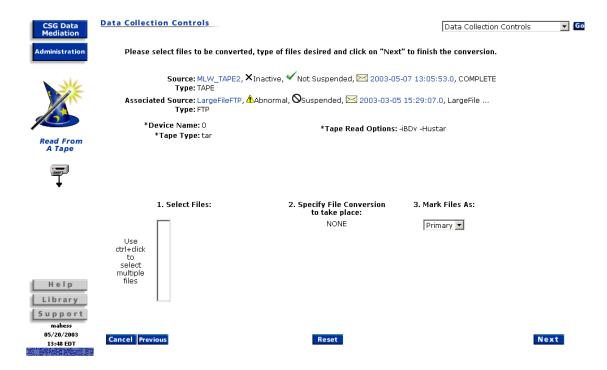
Figure 33 Run From a Tape Wizard — Page 2



Elements

- Associated Source
- Device Name
- <u>Have IBM Header/Trailer?</u>
- Input Tape Format
- Maximum File Size to Create
- Source
- Tape ID
- Tape Read Options
- Tape Read Results
- Tape Type
- Type (for Sources)

Figure 34 Run From a Tape Wizard — Page 3



Elements

- Associated Source
- Device Name
- <u>Input Tape Format</u>
- Have IBM Header/Trailer?
- Mark Files As
- Maximum File Size to Create
- Select Files (Data Collection Tape)
- Source
- Specify File Conversion to take place
- Tape Read Options
- Tape ID
- Tape Type
- Type (for Data Files)

Figure 35 Run From a Tape Wizard — Page 4



Elements

- Associated Source
- Device Name
- Input Tape Format
- Have IBM Header/Trailer?
- Maximum File Size to Create
- Source
- <u>Tape Commit Results</u>
- Tape ID
- Tape Read Options
- Tape Type
- Type (for Data Files)

Open the Data Collection Tape Wizard

To open the Data Collection Tape wizard:

- **1.** Insert the tape into the tape device.
- **2.** Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **3.** Select a TAPE source type from the table.
- **4.** Select **Data Collection Controls** from the **Go** menu. The Data Collection Tape Wizard opens.

Run the Data Collection Tape Wizard

To run the Data Collection Tape wizard:

- 1. Follow the instructions to "Open the Data Collection Tape Wizard" (8-120).
- **2.** Update these form fields, if appropriate:
 - » Device Name
 - » Have IBM Header/Trailer?
 - » Input Tape Format
 - » Maximum File Size to Create
 - » Tape ID
 - » Tape Type
 - » <u>Tape Read Options</u>
- **3.** To retension the tape for cartridge tapes, click **Retension**.

Retensioning rewinds the tape to the beginning, then winds forward to the end, then rewinds back to the beginning to smooth out tape tension. This is a time-consuming function so use it only if needed.

- **4.** If you did not use the retension option, click **Rewind**.
- **5.** Click **Next**.
- **6.** Read the Tape Read Results. If you need to change the tape, repeat steps 1-5 with a new tape.
- 7. Click Next.
- **8.** Fill out these form fields:
 - » Select Files (Data Collection Tape)
 - » Specify File Conversion to Take Place
 - » Mark Files As
- 9. Click Next.
- **10.** Read the information in the Tape Commit Results field, then correct any errors.
- **11.** Click **Finish**.

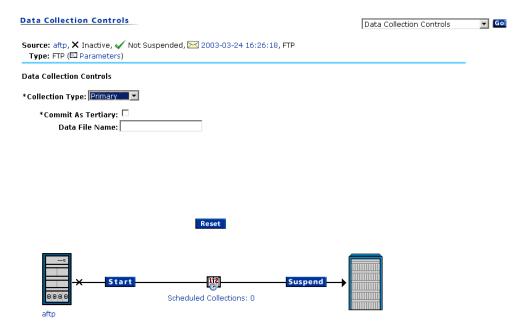
Data Collection Controls Page

The Data Collection Controls page lets you perform manual operations on individual sources. This page is not available for the following source types: EXCEPTION, SEARCH, TAPE, and TRACER.

After you "Open the Data Collection Controls Page" (9-125), you can:

- "Go to Another Page in the Source" (5-81)
- "Resume a Source" (9-130)
- "Start a Source" (9-128)
- "Stop a Source" (9-129)
- "Suspend a Source" (9-131)
- "Suspend a Source" (9-131)
- "Update the Data Collection Controls Page Settings" (9-126)

Figure 36 Data Collection Controls Page



When using the Data Collection Controls page:

- Select source entity name field before performing any operations
- Make only one data collection session active for a specific source. If you
 try to activate a second data collection session for the same source, the
 session will fail. The error is logged in the Error and Information Log
- Use with sources that use FTAM, AMATPS, active FTP, active DDI, or HICAP protocols for primary and secondary data collection sessions
- Request only secondary data collection sessions from sources using the CONNECT:Direct and CDRP protocols

Elements

- Collection Order (for Data Collection Controls page)
- Collection Termination Wait Time
- Commit As Tertiary
- Data File Name
- File Format and Related Applications

Open the Data Collection Controls Page

To open the Data Collections Controls page:

- **1.** Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **2.** Click the source in the table. The Source page opens.
- **3.** Select **Data Collection Controls** from the Go menu. The Data Collection Controls page opens.

Update the Data Collection Controls Page Settings

Changes made on this form are temporary. To change the values permanently, you must change them on the "Source Page" (5-77) and "Source Type Parameters Page" (7-87).

To update the Data Collection Controls page:

- 1. Follow the instructions to Open the Data Collection Controls Page.
- **2.** Fill out this form field:
 - » Collection Termination Wait Time
- **3.** If you selected **Primary** from the <u>Collection Termination Wait Time</u> dropdown menu, fill out these form fields, if available:
 - » Collection Order (for Data Collection Controls page)
 - » Collection Termination Wait Time
 - » Commit As Tertiary
 - » Data File Name
 - » File Count
 - » Polling Threshold
 - » Retry Count
 - » Starting File Sequence Number
- **4.** If you selected **Secondary** from the <u>Collection Termination Wait Time</u> drop-down menu, fill out these form fields, if available:
 - » Commit As Tertiary
 - » Data File Name
 - » File Name (for Sources)
 - » Number of Blocks
 - » Number of Files
 - » Retry Count
 - » Starting Block Sequence Number
- **5.** If you selected **Test** from the <u>Collection Termination Wait Time</u> dropdown menu, fill out these form fields, if available:
 - » Retry Count
 - » Test Cycles

- **6.** Go to one of these tasks:
 - » "Start a Source" (9-128)
 - » "Stop a Source" (9-129)
 - » "Resume a Source" (9-130)
 - » "Suspend a Source" (9-131)

Start a Source

The **Start** button is not available for all source types.

To start a source:

- **1.** Follow the instructions to "Open the Data Collection Controls Page" (9-125).
- 2. Click Start.

Stop a Source

The **Stop** button is not available for all source types.

To stop a source:

- **1.** Follow the instructions to "Open the Data Collection Controls Page" (9-125).
- 2. Click Stop.

Resume a Source

The **Resume** button is not available for all source types.

To resume a source:

- **1.** Follow the instructions to "Open the Data Collection Controls Page" (9-125).
- 2. Click Resume.

Suspend a Source

The **Suspend** button is not available for all source types.

To suspend a source:

- **1.** Follow the instructions to "Open the Data Collection Controls Page" (9-125).
- 2. Click Suspend.

Source Application Associations Page

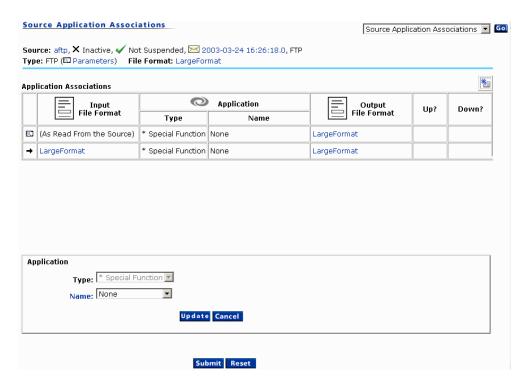
The Source Application Associations page is used to implement the Mediation on Input feature. It lets you specify the following in a source application stream:

- Special Function (special post processing)
- CORFILTER
- Filter
- Format Conversion
- Package
- Validation

After you "Open the Source Application Associations Page" (10-135), you can:

- "Add an Application Association" (10-136)
- "Go to Another Page in the Source" (5-81)
- "Update an Application Association" (10-137)

Figure 37 Source Application Associations Page



When the source sends files to DM, they are put in the primary billing data file directory. Prior to transmission to the destination, the current input files are combined, using a temporary file space, into one output file that is no larger than the Maximum File Size value specified on the Source Destinations page. After merging the files, they are processed through the Production Filter or Format mediation features, if applicable, and transmitted to the specified destination.

- A CORFILTER is a special Correlation Filter that is automatically generated when you audit a Correlation File Conversion ID
- A specific type of application ID can be used only once in an application stream
- The Validation application may be applied before or after the Filter application
- The Validation application must be applied before the Format Conversion application
- When specified, the Package Manager must always be the last application applied in the application stream
- This page is not applicable to SEARCH source types
- When adding or modifying application associations, you must ensure that
 the output file format of the first row is the same as the input file format of
 the second row, and so on, for the entire application associations table. If
 the formats do not match, an error message is displayed

Elements

These elements are on this page and are described in the *Application Elements Reference Guide*:

- Down
- <u>File Format (for Data File Collection)</u>
- Input File Format
- Name
- Output File Format
- Source
- Type (for Sources)
- Up

References

→ For information on the Filter Application Page, see <u>"Filter Application Page" (11-765)</u> in the *Mediation Features User Guide*

Open the Source Application Associations Page

To open the Source Application Associations page:

- 1. Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **2.** Click the <u>Source</u> in the table. The Source page opens.
- **3.** Select **Application Associations** from the **Go** menu. The Application Associations page opens.

Add an Application Association

To add an application association:

- **1.** Follow the instructions to "Open the Source Application Associations Page" (10-135).
- **2.** Click the **New** icon.



The application area appears.

- **3.** Fill out these form fields:
 - » Type (for Destination Application Associations)
 - » Name
- 4. Click Update.
- 5. Click Submit.

Update an Application Association

To update an application association:

- **1.** Follow the instructions to "Open the Source Application Associations Page" (10-135).
- **2.** Select the application association in the table. The application area appears.
- **3.** Update these form fields:
 - » Type (for Destination Application Associations)
 - » Name
- 4. Click Update.
- 5. Click Submit.

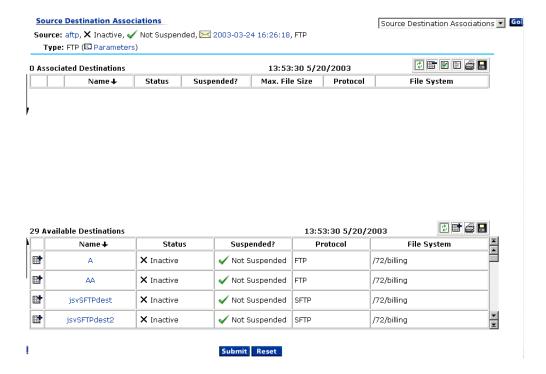
Source Destinations Associations Page

After you "Open the Source Destinations Associations Page" (11-141), you can:

- "Add a Source Destination" (11-142)
- "Go to Another Page in the Source" (5-81)
- "Remove a Source Destination" (11-144)

This page is not available for CORRELATE sources.

Figure 38 Source Destinations Associations Page



When using this page, follow these guidelines:

- Assign sources to at least one destination before data collection is enabled
- You can route data from a single source to more than one destination
- You can assign multiple sources to a single destination

- Merge multiple files from a source into one file before it is processed and sent to a specific destination so that you:
 - » Reduce the number of files a destination receives
 - » Increase the size of the files that are sent to a destination
 - » Reduce the number of times the destination receives files from DM by sending a smaller number of larger files instead of many small output files

Elements

These elements are on this page and are described in the *Application Elements Reference Guide*:

- File System (for Data File Storage)
- Maximum File Size (for the Source Destinations Page)
- Name
- Protocol (for Sources)
- Source
- Status
- Suspended?
- Type (for Sources)

References

→ To associate sources and destinations on the Destinations Source page, see "Destination Source Associations Page" (7-55) in the Destinations User Guide

Open the Source Destinations Associations Page

To open the Source Associations Destinations page:

- **1.** Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **2.** Click the <u>Source</u> in the table. The Source page opens.
- **3.** Select **Associated Destinations** from the Go menu. The Source Destinations page opens.

Add a Source Destination

To add a source destination:

- **1.** Follow the instructions to "Open the Source Destinations Associations Page" (11-141).
- **2.** To add the source destination to the Associated Destinations table, click the icon beside the destination in the Available Destinations table.
- **3.** To merge files, enter a <u>Maximum File Size (for the Source Destinations Page)</u>.
- 4. Click Update.
- 5. Click Submit.

Update a Source Destination

To update a source destination:

- **1.** Follow the instructions to <u>"Open the Source Destinations Associations Page" (11-141)</u>.
- **2.** Select the checkbox beside the destination in the Associated Destinations table. The Maximum File Size field appears.
- **3.** To merge files, enter a new value for <u>Maximum File Size</u> (for the Source <u>Destinations Page</u>).
- 4. Click Update.
- 5. Click Submit.

Remove a Source Destination

To remove a source destination:

- **1.** Follow the instructions to <u>"Open the Source Destinations Associations Page" (11-141)</u>.
- **2.** To remove the destination from the Associated Destinations table and move it back to the Available Destinations table, click the icon beside the destination in the Associated Destinations table.
- 3. Click Submit.

After you "Open the Site Information Page (for Sources)" (12-147), you can:

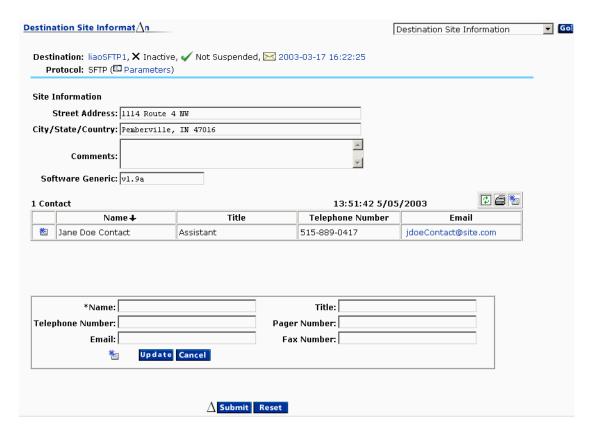
- "Add a Contact" (12-150)
- "Add Site Information" (12-149)

After you "Open the Site Information Page (for Destinations)" (12-148), you can:

- "Add a Contact" (12-150)
- "Add Site Information" (12-149)

This page is not available for the EXCEPTION, SEARCH, and TRACER source types and not available for the CORRELATE destination type.

Figure 39 Site Information Page



Elements

- City/State/Country
- Comments

- Date last updated
- Email
- Fax Number
- Name
- Pager Number
- Software Generic
- Source
- Street Address
- <u>Title</u>
- <u>Type (for Sources)</u>

Open the Site Information Page (for Sources)

- 1. Click **Sources** on the Data Mediation System Launch page. The Sources page opens.
- **2.** Click the <u>Source</u> in the table.
- **3.** Select **Site Information** from the **Go** menu.

Open the Site Information Page (for Destinations)

- **1.** Click **Destinations** on the Data Mediation System Launch page. The Destinations page opens.
- **2.** Click the <u>Destination</u> in the table.
- **3.** Select **Site Information** from the **Go** menu.

Add Site Information

To add site information:

- **1.** Follow the instructions to "Open the Site Information Page (for Sources)" (12-147) or "Open the Site Information Page (for Destinations)" (12-148).
- **2.** Fill out these form fields:
 - » Street Address
 - » <u>City/State/Country</u>
 - » Comments
 - » Software Generic
- **3.** Click **Submit**. The Contacts table appears.
- **4.** To add a contact, see <u>Add a Contact</u>.
- 5. Click Submit.

Add a Contact

Before you add a contact, you must first follow the instructions to "Add Site Information" (12-149).

To add a contact:

- **1.** Follow the instructions to "Open the Site Information Page (for Sources)" (12-147) or "Open the Site Information Page (for Destinations)" (12-148).
- 2. Click the **New** icon.



- **3.** Fill out these form fields:
 - » Name
 - » Telephone Number
 - » Email
 - » <u>Title</u>
 - » Pager Number
 - » Fax Number
- 4. Click Update.
- 5. Click Submit.

Index

Numerics	file names
4ESS 16	output 24
5ESSI 16	file system source 83
_	temporary 23
A	files
AMA Records	merging 140
expansion option 20	filters 23 FTP
AXE 14	requirements 10
C	G
conversions 26	_
	generic FTAM
D	polling precedence 12
Data	1
Primary 28	-
Secondary 28	input tape formats 26, 27
Storage 29	file conversions 27
data	sources 27
tracer records for CDRP 19	interfaces
data collection	Source 13
Resuming 72	0.0
resuming 72	М
schedule 124	Macros
Suspending 72	Output file name 24
suspending 72	mediation on input 12
data collection tape 115 Data Collection Tape page 115	description 12
Data Storage 29	merging files 140
Data Storage 20	guidelines 23
E	MNP 15
_	MTP 15
Ericsson 14, 15	0
EWSD 14	0
expansion	output files
record 20	name macros 24
expansion option	naming conventions 24
AMA records 20 record 20	
record 20	P
F	polling
file conversions 27	precedence 12
file formats	precedence
requirements 11	polling 12
file merge 140	Primary tracer counts 18
data files flow 134	primary tracer counts 18 protocol
interaction with filter and format 23	MTP 15
naming output files 24	protocols
temporary file system 23	data collection 13
file name macros	MNP 15
output 24	

R

record
expansion 20
record processing
tracer 18
records
tracer 18

S

Secondary data 28 secondary data 20 site information 145 source destinations 139 file systems 83 interfaces 13 source application associations 133 process 21 Source Application Associations Page 133 source type parameters 87 Sources 67 sources 26, 72 interfaces 16 tracer 18, 19 working with 10 Storage, Data 29

T

temporary file system 23
tracer counts
 primary 18
tracer record
 processing 18
tracer records 18, 19
 CDRP data 19
tracer sources 18, 19

U

UNIX 10