

Administrator's Guide
Databridge Plus



Attachmate Databridge™

Databridge Plus Guide

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About This Guide

To install, configure, and run Databridge, you should be a system administrator familiar with the following:

- Standard Unisys® operations for MCP-hosted mainframes such as the CS7xxx series, Libra series, ClearPath® NX/LX or A Series
- DMSII databases and Data And Structure Definition Language (DASDL)

Conventions

The following conventions and terms may be used in this guide.

This convention or term	Is used to indicate this
<code>this type style</code>	text that you type filenames and directory names onscreen messages
<i>italic</i>	variables emphasis document titles
square brackets ([])	optional items in a command For example, [true false]. (Do not type the brackets.)
pipe ()	a choice between items in a command or parameter. When enclosed in braces ({ }), the choice is mandatory.
UPPERCASE	DMSII data set and data item names
<i>MCP server host mainframe</i> (terms)	Unisys ClearPath NX, LX or A Series mainframe
<i>DBEngine</i> (term)	Databridge Engine
<i>DBEnterprise</i> (term)	Databridge Enterprise Server
<i>DBServer</i> (term)	Databridge Server

Abbreviations

The following abbreviations are used throughout this guide and are provided here for quick reference.

Abbreviation	Name
AA	Absolute Address

Abbreviation	Name
ABSN	Audit Block Serial Number
AFN	Audit File Number
API	Application Programming Interface
DASDL	Data and Structure Definition Language
DMSII	Data Management System II
IDX	Index
IPC	Inter-Process Communications
MCP	Master Control Program
RPC	Remote Procedure Call
SEG	Segment
WFL	Work Flow Language

Related Documentation

When using Databridge, you may need to consult the following resources.

Databridge product documentation

On the Databridge installation image, the DOCS folder contains guides for installation, error codes, and administrator's guides for each Databridge product. These documents require Adobe Reader for viewing, which you can download from the Adobe website (<http://get.adobe.com/reader/>). This documentation, and current technical notes, is also available on the Attachmate support site (<http://support.attachmate.com/manuals/databridge.html>).

Documentation for Databridge Enterprise Server and the Databridge Client Console is also available from the [Help](#) menu. A modern browser is required for viewing this documentation.

Unisys MCP server documentation

If you are not completely familiar with DMSII configuration, refer to your Unisys documentation.

Introducing Databridge Plus

Databridge Plus runs on all Unisys® MCP-hosted servers, such as the CS7xxx series, Libra series, ClearPath® NX, LX, or A Series. It can be installed with the Databridge Host product and uses the same license key. For installation instructions, see the *Databridge Installation Guide*.

Databridge Plus is a system library that accesses DMSII audit files, including the current audit file, giving Databridge the ability to perform near real-time replication of DMSII databases. For more information about configuring Databridge to automatically update the relational database in real-time, see Chapter 4 of the *Databridge Client Administrator's Guide*.

To use Databridge Plus, you need a basic understanding of Databridge and the Databridge accessories. See the Glossary for a brief explanation of the Databridge accessories, or refer to the *Databridge Host Administrator's Guide* for a complete explanation.

Configuring Databridge Plus

Other than the SL described below, Databridge Plus requires no configuration.

For more information about configuring Databridge to automatically update the relational database in real-time, see Chapter 4 of the *Databridge Client Administrator's Guide*.

Establish Databridge Plus as a System Library

You must establish Databridge Plus as a system library before DBEngine can invoke Databridge Plus to access the audit files.

To establish Databridge Plus as a system library

- Enter the following command from either the ODT or from MARC:

```
SL DBAUDITSUPPORT=  
(usercode) OBJECT/DATABRIDGE/AUDITSUPPORT ON  
familyname:TRUSTED, LINKCLASS=3
```

where *usercode* and *familyname* refer to the usercode and pack to which Databridge Plus was installed.

The host responds with the following message to indicate that Databridge Plus is established as a system library and Databridge is ready for use:

```
Function "DBAUDITSUPPORT=(usercode) OBJECT/DATABRIDGE/ AUDITSUPPORT ON  
pack" ESTABLISHED
```

DBEngine will automatically invoke Databridge Plus to access audit files as needed.

Note: The DBEngine parameter file contains a DBPlus parameter that specifies whether or not DBEngine should use DBPlus when replicating a database. This parameter file is called DATA/ENGINE/ CONTROL. If this parameter file is specific to a database, the database name is a node in the filename.

Suspend Databridge Plus Before Upgrading

If you need to suspend Databridge Plus for any reason (for example, you're upgrading the program) use this procedure to remove the function name assignment.

To remove the function name assignment

- Enter the following command from either the ODT or from MARC:

```
SL - DBAUDITSUPPORT
```

The host responds with the following message to indicate that Databridge Plus is suspended:

```
FUNCTION "DBAUDITSUPPORT" IS NO LONGER ESTABLISHED
```

- Reestablish Databridge Plus as a System Library (page [11](#)). Make sure that you establish a new system library to the new object code.

Databridge Plus Messages

Following are messages that may occur when using Databridge Plus:

`AUDLEVEL=n`

n is the audit level of the audit file Databridge Plus is trying to open. Databridge Plus supports audit levels 6, 7, 8, 9, and 10. You will only receive this message if you're using an unsupported DMSII audit level. Contact Attachmate Technical Support.

`Partial Audit Block`

This error will only be displayed if SW2 or SW3 has been set. Additionally, if SW1 is set, a program dump will be taken. These switches should only be set under the direction of Attachmate Technical Support. If the partial audit block error occurs, important information will be displayed that will have to be conveyed to Attachmate Technical Support.

`No File filename`

The audit file Databridge Plus is trying to open is no longer on the original audit pack or on the AUDIT ON pack location. Copy the audit file to the original pack or the audit on pack location and then perform an FA command.

Glossary of Terms

The audit file number is a four-digit number that identifies an audit file.

ABSN

Audit block serial number—The audit block serial number is a 10-digit number that identifies an audit block.

accessories

Databridge accessories access the services in DBEngine and DBSupport. Some of the accessories provided with Databridge are as follows:

- DBServer, which provides communication and DMSII database replication services to Databridge Clients.
- DBSpan, which produces a replication of one or more data sets into flat sequential disk files. DBSpan updates the cloned flat files by appending the changes to the end of the flat files (unlike DBSnapshot, which replaces the changed records).
- DBSnapshot, which produces a one-time replication of one or more data sets into flat sequential disk files or tape.
- DBTanker, which provides filtered audit files for the DBSpan and DBServer accessories.
- DBInfo, which produces a report of your DMSII database timestamps, update levels, DMSII release levels, etc.
- DBLister, which produces a report of the layout of the structures in your DMSII database, including structure numbers and key sets.
- DBAuditTimer, which closes the current audit file when it is older than a specified length of time.

Accessroutines

The Accessroutines program is a DMSII library program that controls access to the database, reads and writes records, and creates the audit trail.

Databridge Plus enables Databridge to perform near real-time replication of DMSII databases by accessing the audit file while the Accessroutines program is creating it.

audit file

An audit file is created by the DMSII Accessroutines and contains the raw format of changes made to the DMSII database by update programs. Audit file records contain the deletes, creates, and modifies that were made to the various structures. Depending on the frequency of changes made to a database, the information in an audit file can span a few hours or several weeks.

Databridge uses the audit file for the raw data of each database change to exactly replicate the primary database. Databridge records the audit location (AFN, ABSN, SEG, IDX) between runs, so it can restart without losing any records.

CONTROL file

The DMSII CONTROL file is the runtime analog of the DESCRIPTION file. The DESCRIPTION file is updated only when you compile a modified DASDL. The CONTROL file controls database interlock. It stores audit control information and verifies that all database data files are compatible by checking the database timestamp, version timestamp, and update level. The CONTROL file is updated each time anyone opens the database for updates. The CONTROL file contains timestamps for each data set (when the data set was defined, when the data set was updated). It contains parameters such as how much memory the Accessroutines can use and titles of software such as the DMSUPPORT library (DMSUPPORT/databasename).

Databridge uses the CONTROL file for the following information:

- Timestamps
- INDEPENDENTTRANS option
- AFN for the current audit file and ABSN for the current audit block
- Data set pack names
- Audit file pack name
- Database user code

DASDL

Data and Structure Definition Language (DASDL) is the language that defines DMSII databases. The DASDL must be compiled to create a DESCRIPTION file.

Databridge Engine

The Databridge Engine (also referred to as DBEngine) is a host library program that uses the DMSII Support Library to retrieve data records from the DMSII database for cloning.

DESCRIPTION file

The DESCRIPTION file contains the structural characteristics of a database, physically and logically. This file is created from the DASDL source by the DASDL compiler and contains the layout (physical description), timestamp, audit file size, update level, logical database definition, and any static information about the database. It contains information about the database, not the data itself.

There is only one current DESCRIPTION file for each DMSII database. Databridge must have access to the DESCRIPTION file before it can replicate a database. Additionally, Databridge uses the DESCRIPTION file information for consistency checks between the primary database and the secondary or replicated database.

The DESCRIPTION file corresponds to the schema in a relational database.

quiet point (QPT)

A quiet point is a point in the audit trail when the DMSII database is quiet and no program is in transaction state. This can occur naturally, or it can be forced by a DMSII sync point.

Support Library

A library that provides translation, formatting, and filtering to the DBServer and other accessories. After DBServer receives data from the Databridge Engine, it calls the Support Library to determine if the data should be replicated, and if so, passes the data to the Support Library for formatting.

system library

A library code file registered with the MCP on the host that is associated with a function name. Programs can link to the library code file by specifying the function name.