

INSTALLATION GUIDE



Attachmate®

DATABridge™



System Requirements

To install and run DATABridge 6.2 SP1, your system must meet the following hardware and software requirements. Specific requirements vary based on your hardware and other software components present.

Note: For installation instructions of Service Pack 1, see the included Read Me file (readme.txt).

DATABridge Host	<p>Unisys mainframe system with an MCP level SSR 51.1 through 56.1</p> <p>DMSII software (including the DMALGOL compiler)</p> <p>DMSII database DESCRIPTION, CONTROL, DMSUPPORT library, and audit files</p> <p>Access to an audited DMSII database</p>
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DATABridge Enterprise Server	<p>Note: This list assumes that the Enterprise Server machine is connected to a Unisys mainframe system running DATABridge Host 6.x and to a system running DATABridge Client 6.x.</p>
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ClearPath PC with Logical disks or MCP disks (VSS disks in MCP format)

-or-

Windows PC that meets the minimum requirements of its operating system, which is one of the following:

- Windows 7
- Windows Vista
- Windows 2008 R2
- Windows Server 2008
- Windows Server 2003

Visibility to MCP disks on a storage area network (recommended)

TCP/IP transport

An Internet browser is required to view the application Help. JavaScript must be enabled to use navigation, search, and other Help features. Supported browsers include Internet Explorer (IE), Firefox, and Google Chrome.

DATABridge Client Console	<p>You can install Client Console to the same machine as the Client; however, this can drain resources and impact the performance of your relational database. Instead, we recommend that you install the Client Console to a machine that connects to the Client machine via TCP/IP transport.</p>
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Java Runtime Environment (JRE) version 6 Update 26 (1.60_26) or later. To reduce security threats and vulnerabilities, we recommend that you download the JRE from www.java.com and configure it to receive updates automatically.

Description of Files on the Installation Image

This topic lists the directories and files on the installation image, in alphabetical order. DATABridge Host installation files (CDINSTALL, DISKINSTALL, IMAGE, and INSTALL) are located on the root. Both 32-bit and 64-bit versions are provided for all DATABridge Clients.

This directory	Contains	File description
AIX	Tar files for installing DATABridge clients on the AIX platform:	
	DB_AIX64_Ora9i.tar	The 64-bit client for Oracle 9i
	DB_AIX64_Ora10g2.tar	The 64-bit client for Oracle 10g (release 2)
	DB_AIX64_Ora11g.tar	The 64-bit client for Oracle 11g
	DB_AIX_Ora9i.tar	The 32-bit client for Oracle 9i
	DB_AIX_Ora10g2.tar	The 32-bit client for Oracle 10g (release 2)
Console	Files for installing the DATABridge Client Console, in the following subdirectories:	
	HP-UX (Itanium)	dbconfig-hpux.motif.ia64_32.tar.gz dbconsole-hpux.motif.ia64_32.tar.gz
	Linux	dbconfig-linux.gtk.x86.tar.gz dbconfig-linux.gtk.x86_64.tar.gz dbconsole-linux.gtk.x86.tar.gz dbconsole-linux.gtk.x86_64.tar.gz
	SunOS	dbconfig-solaris.gtk.sparc.tar.gz dbconsole-solaris.gtk.sparc.tar.gz
	Docs	DATABridge Help documentation files in PDF format. Help for Enterprise Server and the Client Console are available from the Help menu of the application.
	HP-UX	Tar files for installing clients on Hewlett Packard ® 9000 series machines running HP-UX 11i v2 or later:

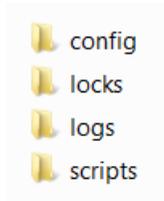
The Working Directory

The DATABridge Client's global working directory (also referred to as the *service's working directory*) is required for the Client to run. The *working directory* is different from the *install directory*, where the installer copies all of its files.

- On UNIX, you must create a new working directory each time you install or upgrade the software.
- On Windows, the working directory is created for you in the location you specify in the Installer wizard. If you're upgrading or if you enabled file security, a new working directory is created. This path is saved as the INSTALLDIR string value in the Windows registry key.

Contents of the Client Working Directory

The working directory contains four subdirectories: `config`, `locks`, `logs`, and `scripts`.



This subdirectory	Contains
<code>config</code>	<p>The program-generated file (<code>log.cfg</code>) that keeps track of the current log file and the binary configuration file (<code>dbcontrol.cfg</code>), which the service updates when you make changes to settings in the Client Console.</p> <p>If you export the service configuration file, the exported copy (<code>dbcontrol.ini</code>) is created in this subdirectory. When you add a data source, a backup copy of the service configuration file <code>dbcontrol.cfg</code> is created (<code>dbcontrol.bak</code>).</p>
<code>locks</code>	<p>Lock files for each data source. A lock file is created the first time a client run starts. The file is re-opened on subsequent runs and kept open for the duration of the run to prevent additional runs using the same data source. The <code>-u</code> option can no longer be used to unlock the data source in command-line runs.</p> <p>The locks subdirectory is created the first time you start the service (new installations) or when you run the Migrate program (upgrades).</p>
<code>logs</code>	<p>Log files (<code>*.log</code>) created by the service. A section in the configuration file named <code>[Log_File]</code> allows the user to set the criteria for switching log files. For more information, see Appendix C in the <i>DATABridge Client Administrator's Guide</i>.</p>

`scripts` Command files launched by the service under circumstances such as, when a client run terminates or the BCNOTIFY program on the MCP sends the service a request to run a script file.

This is a suitable location for saving Batch Console source files that contain the commands for the Batch Console.

Each Data Source Has a Working Directory

Each data source requires its own separate working directory within the Client working directory. This directory is created automatically when you add a new data source in the Client Console or when you upgrade existing data sources using the Migrate program. If you use the command-line client (`dbutility`), you must create directories for your data sources. When `dbutility` executes a `configure` or a `define` command, it creates the subdirectories (if they don't exist) and a binary configuration file (`dbridge.cfg`) in the `config` subdirectory.

The data source working directory contains the following subdirectories:

This subdirectory	Contains
<code>config</code>	<p>The client configuration file (<code>dbridge.cfg</code>). For runs initiated by the Client service, this file must be binary. The command-line client can use a binary or a text file. For details, see Appendix C in the <i>DATABridge Client Administrator's Guide</i>. Make sure that you delete any exported text configuration files (<code>dbridge.ini</code>) that are no longer used. These become obsolete when the configuration is updated from the Client Console.</p> <p>The Null record file for the data source and two program-generated files (<code>log.cfg</code> and <code>trace.cfg</code>), which keep track of the current log and trace files.</p> <hr/> <p>Note: You can make the Client add signon information to the configuration files it creates by running the <code>configure</code> or a <code>define</code> commands with switches to specify your signon parameters. For more information, see Signon Configuration. (page 46)</p>
<code>dbscripts</code>	Files created by the generate command, SQL scripts, bulk loader files (*.ctl,*.fmt), and command files to invoke the bulk loader. In Oracle, the control files also specify parameters for SQL*Loader.
<code>discards</code>	<p>Files created by the client or the bulk loader when they encounter a data record that cannot be processed. If the Client determines that a DMSII record is bad before handing it to the bulk loader, it puts this record in the client discard file as if it was an insert operation. The data is encoded as an SQL stored procedure call using the appropriate stored procedure based on the type of update.</p> <p>Discard files can be executed using the database's query tool:</p> <ul style="list-style-type: none"> ▪ SQL Server Management Studio query window ▪ Oracle SQL*Plus utility
<code>logs</code>	Client log files. The filename includes a user-configurable prefix followed by a date (<code>yyyymmdd</code>). If multiple log files exist for the same date, a time (<code>_hhmmss</code>) is appended to the end of the filename.

`scripts`

User script files.

The data source working directory also contains temporary files. Many of these files aren't removed by the Client and should be deleted periodically. You can safely delete them any time the Client is not running (except during the interval between a `redefine` command and a `reorg` command). Temporary files include: trace files; bcp log files; unload files; scripts that are executed by the `redefine` command; and temporary files used by the Windows client during data extraction.

Installer Advanced Tab

- 1 Run the Attachmate Setup wizard (`setup.exe`).
- 2 Click the **Advanced** tab.

Install to this PC

Installs the selected DATABridge components to your computer.

Create an Administrative Install image on a server

Note: An administrative installation does not actually install the product. Instead, it creates an installation image that you can use to deploy DATABridge users.

When you create an administrative installation image, an image of DATABridge is copied to a network location for later installation to multiple workstations. This network location can be used by deployment tools to access and create packages that are deployed to workstations. Also, end users can perform installations by running `setup.exe` from this location.

Log file settings

By default an installation log file is created, but this file is deleted if the installation succeeds. (This configuration avoids accumulation of large log files after successful installations.) To save a log file for all installations, including successful ones, select **Create a log file for this installation**, and clear **Delete log file if install succeeds**.

The installation log file, which provides details about the installation, is saved in the user's temp directory (`%tmp%`) with a generated name that begins with `atm`. To open this folder, launch the Start menu Run command and enter `%tmp%`.

Updatepath Dialog Box

Getting there

- 1 Run the Attachmate Setup wizard (`setup.exe`).
- 2 On the **Feature Selection** tab, select the DATABridge Client. Use the **Options** tab to specify the working directory and port number, and then click **Install Now**.
- 3 Make selections and then close the **Client Configuration Options** dialog box.

If you run the Client from a command line, use the **Updatepath** dialog box to include the Client directory in the system path. The **Updatepath** dialog box won't appear when reinstalling or repairing the installation.

This setting	Does this
Do not add DATABridge program directory to the PATH	<p>Requires that you enter the fully qualified filename (including the DATABridge directory) each time you run a DATABridge program from the command line. (Make sure that you enclose the path in quotation marks, as "Program Files" contains a space.)</p> <p>Alternatively, you can setup command files to run the Client or you can use environment variables to make this task easier. Choose this setting if you use scripts that specify the full path for the client.</p>
Add DATABridge program directory to System PATH	<p>Makes the DATABridge programs (and directory) available to anyone who uses the computer by adding the DATABridge directory to the Windows Path environment variable. Avoid this option if security is a concern.</p>
Add DATABridge program directory to the User PATH	<p>Makes the DATABridge programs available only to the user who installed the program.</p>

Client Configuration Dialog Box

Working directory for the DATABridge Client Service Displays the working directory you selected in the Options tab of the installer. You can change it by entering a different path or by clicking **Browse**. This directory is required for all client operations, whether initiated from a command line or by the service.

File Security

Enable File Security Select this check box to set the security attributes for the Client working directory, its files and folders, according to the settings specified in this dialog box..

UserID and Optional Groups When **Enable File Security** is selected, you can specify a user or group that has read-write privileges to all directories and files created by the Client program (in addition to administrators and the built-in system account, which have these privileges by default). You can specify both individual users and groups if the user is not a member of the group. Optionally, you can specify a group that has read-only privileges to these files.

UserID for dbutility Specify the user ID that has full read-write control of the DATABridge Client and its programs. dbutility commands must be run under this user ID or by a member of the group specified in the DBAdministrator Group string in the Windows registry.

Note: If you reinstall DATABridge, this value will be populated with the current ID, which you can clear and reenter, if needed.

DBAdministrator Group Specify a group name whose members can run the DATABridge Client program and who have read-write access to files in the Client working directory.

DBOperator Group (Optional) Specify a group name whose members can view the DATABridge configuration and log files, but cannot modify them. This selection is useful for groups who are not directly involved in running DATABridge, but who need to monitor its operations.

CHAPTER 3

Installing the DATABridge Client on UNIX

This section provides instructions for installing and upgrading the DATABridge Client software, including the Client Console and daemon, on a UNIX system.

Install the DATABridge Client on UNIX

Use this procedure for first-time installations and upgrades on all UNIX, Linux, and related systems. In this procedure, you'll install the Client, create a Client working directory, and specify a user ID for the daemon.

If you use a non-English Oracle database, you could run into problems with replicated data that uses decimals. See [Running the Oracle Client on a Non-English Database \(page 44\)](#).

Important: Commands, filenames, and often, passwords, are case-sensitive on UNIX systems. Type the commands as shown.

To install the Client on UNIX

- 1 Log on using a userid that has root privileges.
- 2 If a previous version of the DATABridge Client is running on your system, stop it.
- 3 Create a new install directory for DATABridge 6.2 (for example, `/opt/dbridge62`).
- 4 Move the appropriate tar files (Client, Client Console) to the UNIX system using binary FTP. See [Description of Files on the Installation Image \(page 13\)](#).
- 5 Change the directory to the install directory you created in step 3 and extract the tar file:

```
tar -xvf filename
```

where *filename* is the full tar filename, including location.

The extract program creates a client subdirectory named after the database (for example, Oracle). Files are extracted to this subdirectory and to the directory you specified.

- 6 Next, change the owner and group for the files in the install directory to the userid (and the group to which the userid belongs) designated to run the DATABridge Client (that is, the USERID specified in the file `globalprofile.ini`). To do this, type the following command:

```
chown -R dbridge:users *
```

where *dbridge* is the user ID and *users* is the corresponding group.

CAUTION: To prevent the files in the install directory from being accidentally deleted, we recommend that you leave them set to read-only (the default). Before you update the software, to prevent the extraction from failing, either remove all of the files from the install directory or make them writeable until the update is successfully installed.

- 7 In the editor, open the sample daemon script file (`dbdaemon`) located on the root of the install directory, update the necessary environment variables, and then save `dbdaemon` to the following location:
 - On Linux and Solaris: `/etc/init.d`
 - On HP-UX: `sbin/init.d`
- 8 Create the directory `/etc/Attachmate/DATABridge/6.2`
- 9 In the editor, open the `globalprofile.smp` file on the root of the install directory and make the following changes:

Caution: This file is critical for client operations. If this file is missing or contains the wrong information, the client will not run.

- a) For `INSTALLDIR`, specify the install directory you created in step 3.
 - b) For `WORKINGDIR`, specify the full name of the Client's working directory for 6.2. If you're upgrading, make sure that the working directory for 6.2 is different from your 6.0 or 6.1 working directory. You create the actual directory later in this procedure.
 - c) For `USERID`, specify the user under which you'll run the daemon. When you start the daemon, you must log in as this user or as the root user. Clients can only be run under this userid.
 - d) To enable file security for the Client working directory, specify a value for `umask`. The bits specified get removed from the default file security bits. A `umask` of `027` (the default) indicates that the owner bits are unchanged, but the group's `w` and `x` bits are reset and all 3 bits are reset for other users. For a stronger mask, specify a value such as `077`.
- 10 Save the file as `globalprofile.ini` to the directory `/etc/Attachmate/DATABridge/6.2`.
 - 11 Do one of the following:
 - (New installations) In the home directory, use the editor to update your profile (for example, `.profile` or `.bash_profile`) and include the environment variable `ORACLE_HOME`. Consult the Oracle database administrator to determine what this variable should be set to (typically, it's `/opt/oracle...`). You must also include the directory `$ORACLE_HOME/bin` in the `PATH` to ensure that the bulk loader `sqlldr` can be located. You may want to also include the environment variable `INSTALLDIR`, which points to the directory created in step 3. You can then add the Client program directory `$INSTALLDIR/Oracle` to the `PATH`, making it a lot easier to run the Client from the command line.
 - (Upgrades - Optional) Update your profile so that the `PATH` points to the newly-installed Client.
 - 12 For the DATABridge Client to find the Oracle shared libraries, add the Oracle lib (or lib32) directory to the appropriate environment variable for your system, as shown in the following table. The line you add after the `ORACLE_HOME` definition can be used instead of typing the complete Oracle lib directory name.

To update	Add the following to your profile
All 64-bit clients	<code>LD_LIBRARY_PATH = \$LD_LIBRARY_PATH:\$ORACLE_HOME/lib</code>

32-bit clients on Solaris or Linux `LD_LIBRARY_PATH = $LD_LIBRARY_PATH:$ORACLE_HOME/lib32`

32-bit clients on AIX `LIBPATH = LIBPATH:$ORACLE_HOME/lib32`

32-bit clients on HP-UX `SHLIB_PATH = SHLIB_PATH:$ORACLE_HOME/lib32`

Note: The UNIX shell you use may require that you add a line that exports the environment variable. For instructions, consult your UNIX documentation.

- 13 Using the value you specified in step 9b, create a Client working directory for 6.2 that contains the three subdirectories `config`, `locks` and `logs`. (For upgrades, the Migrate program creates a new, secure working directory and subdirectories from this value. See Run the Migrate Program on UNIX (page [30](#)).
- 14 When installation is complete, verify that the Client directory files are correctly installed. For a list of installed files, see Files Installed with the DATABridge Client and Client Console (page [64](#)).
- 15 If you run the Client from a command line, you must also update the environment variable `PATH` in your profile to include the directory that contains the DATABridge Client. If you installed the Client to the directory `/opt/dbridge62`, add `"/opt/dbridge62/Oracle"` to the `PATH`. The `PATH` is defined as:

```
PATH=$PATH: ... $ORACLE_HOME/bin: ...
```

where each specified directory is terminated by a colon, except for the last one on the line.

Individual clients use the database names as the directories names (for example, Oracle).

Important: Make sure that the `mknod` utility's directory (usually `/usr/sbin`) is included in the `PATH`. If the shell scripts used to clone data sets cannot find this utility, files will be used in place of named pipes resulting in bulk loader problems, such as broken pipes.

- 16 Do one of the following:
 - If you're upgrading, proceed to Run the Migrate Program on UNIX (page [30](#)) to complete the installation.
 - If you're installing for the first time, install the Client Console to configure the Client parameters. See Install the Client Console on UNIX (page [32](#)).

Run the Migrate Program on UNIX

Use this procedure to upgrade DATABridge Client 6.1 and earlier on UNIX systems.

To run the Migrate program

- 1 Install the DATABridge Client 6.2. See [Install the DATABridge Client on UNIX \(page 27\)](#).
- 2 Make sure that the file `globalprofile.ini` includes values for `INSTALLDIR`, `USERID`, `WORKINGDIR`. If you want to enable file security for the working directory, make sure that the `umask` value is set. (For instructions, see [Install the DATABridge Client on UNIX \(page 27\)](#)). The Client runs under the specified `USERID` in the `globalprofile.ini`.
- 3 Open a command session and type `migrate`. If the Client directory wasn't added to the `PATH` during installation, you must type the full path to `migrate`.

The Migrate program first creates a new global working directory and then creates a working directory for each migrated data source. Next, it moves the existing user scripts and configuration files to this directory after updating the configuration file parameters. It also creates the daemon configuration file which contains any scheduling information defined for the individual data sources.

- 4 The program asks if you are upgrading from version 6.0 or 6.1 and use the daemon. If the answer is yes, enter the full filename of the global working directory. Make sure that you enter a different name for the 6.2 working directory. After a new working directory structure is created for the service, data sources from the earlier version will be migrated to subdirectories in this working directory. Skip the remaining steps.
- 5 When prompted, enter the name of each data source. Next, enter the location of the working directory for this data source either as an absolute path or a name relative to the current directory.

The Migrate program creates a working directory for each data source. Existing settings are used to create a new binary configuration file in the `config` subdirectory and user scripts are moved to the `scripts` subdirectory. The Migrate program starts the `dbfixup` program, which upgrades the client control tables and populates the `dbscripts` directory for each data source. Lastly, the Migrate program applies file security to the working directory, data source directories, and all Client files.

If the `read_null_records` parameter is set to `True`, the Migrate program copies the Null Record files for the data sources to the `config` subdirectories. A new daemon configuration file is created (`dbcontrol.cfg`), which includes updated data sources and any existing scheduling parameters. The Migrate program runs a `dbutility generate` command for each data source to populate the `dbscripts` directories.

- 6 Repeat step 5 for each data source. When you're done, enter an empty line (that is, `<CR>`).
- 7 To run the Client using the daemon, install the Client Console—preferably to a different machine than the relational database to avoid using valuable system resources.

You can run the command-line program (`dbutility`) or the daemon after you create a script for the daemon that includes the updated `ORACLE_HOME`, `INSTALLDIR`, and `WORKING_DIR` parameters.

Note: If you need to re-run the Migrate program at any point, first delete the working directory that was created by the Migrate program.

Install the Client Console on UNIX

For optimal performance, install the Client Console to a workstation *connected to—not on—* the relational database, or it will use valuable system resources. You can install and run the Client Console on AIX, Linux, Solaris, and Windows operating systems. For example, you can install and run it on a Windows workstation that is connected to UNIX, or run it on both types of workstations simultaneously. See System Requirements (page [10](#)).

Note: Use DATABridge Client Console 6.2 with DATABridge 6.2 software. It is not compatible with earlier DATABridge versions.

To install the Client Console

- 1 Copy the *.tar.gz archives from the \Console\

There are two archives; one for the dbconfig and one for dbconsole.

- 2 Unzip the archives:

```
gzip -d dbcon*.gz
```

- 3 Extract each of the files from the tarballs by running the following separate commands:

```
tar -xvf dbconsole*.tar
tar -xvf dbconfig*.tar
```

This creates two directories (dbconsole and dbconfig) in the current working directory.

- 4 Next, provide execute privileges to the dbconfig file and to the dbconsole file:

```
chmod +x dbconsole/dbconsole
chmod +x dbconfig/dbconfig
```

After the Client Console is successfully installed, start the daemon (page [50](#)) and then start the Client Console (page [52](#)).

CHAPTER 4

Installing the DATABridge Host

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This chapter includes instructions for installing and upgrading the DATABridge Host software on the MCP server.

Before You Upgrade the DATABridge Host

Before you upgrade, please note the following:

- Some files are overwritten by the installation. If you have modified these files, use the following section to write down your changes before you run DATABridge Installation WFL. After installation, you can edit the new files with your changes. We also recommend that you make backup copies of these files using the `copy` command. For example:

```
copy DATA/= as SAVE/DATA/=
copy SYMBOL/= as SAVE/SYMBOL/=
copy WFL/= as SAVE/WFL/=
```

- You must recompile any tailored support libraries after you upgrade. See the *DATABridge Host Administrator's Guide*.
- You can use Accessory parameter files from DATABridge 5.2 with DATABridge 6.1 or later. If DATABridge 6.x includes new options you want to use, you can add them by typing them into your existing parameter file.

Back Up Changes to Host Files

Use this section to write down changes you've made to host files before you run DATABridge Installation WFL. After you install, update the new files accordingly.

DATABridge Support Library	If you changed SYMBOL/DATABRIDGE/SUPPORT, note the changes you made and make the corresponding changes to the new SYMBOL/DATABRIDGE/SUPPORT.
-----------------------------------	--

DATABridge Compile WFL	If you changed WFL/DATABRIDGE/COMP, note the changes you made and make the corresponding changes to the new WFL/DATABRIDGE/COMP.
-------------------------------	--

<u>Option</u>	<u>Your Setting</u>
---------------	---------------------

QUEUE =

STARTTIME =

BDNAME =

Other:

Other DATABridge WFL Files	In any DATABridge WFL file, you can modify STARTTIME, QUEUE, and the number of printer backup files. If you changed any of the following DATABridge WFL files, write your changes in the tables that follow. After installation, update the files accordingly.
-----------------------------------	--

WFL/DATABRIDGE/SPAN

<u>Option</u>	<u>Your Setting</u>
---------------	---------------------

QUEUE =

STARTTIME =

BDNAME =

WFL/DATABRIDGE/LISTER

<u>Option</u>	<u>Your Setting</u>
---------------	---------------------

QUEUE =

STARTTIME =

BDNAME =

WFL/DATABRIDGE/SERVER

Option	Your Setting
QUEUE =	
STARTTIME =	
BDNAME =	
USERCODE =	

WFL/DATABRIDGE/TANKER

Option	Your Setting
QUEUE =	
STARTTIME =	
BDNAME =	

WFL/DATABRIDGE/SNAPSHOT

Option	Your Setting
QUEUE =	
STARTTIME =	
BDNAME =	

WFL/DATABRIDGE/COPYAUDIT

Option	Your Setting
QUEUE =	
STARTTIME =	
BDNAME =	

KEEP =

Other

WFL/DATABRIDGE/AUDITTIMER

Option	Your Setting
QUEUE =	
STARTTIME = (initial start)	
BNAME =	
STARTTIME = (queued start)	

WFL/DATABRIDGE/DBINFO

Options	Your Setting
QUEUE =	
STARTTIME =	
BNAME =	

DBEngine CONTROL File

The DATA/ENGINE/CONTROL file is overwritten with the new DATABridge key. If you made changes to any of the following options, make a note of them now.

Option	Your Setting
Checkpoint client every n audit blocks	
Audit Level =	
Property Level =	
Workers=	
Available From...To...=	
ReadAhead =	

Links =

SAMPLE Files

If you did not rename SAMPLE DATABridge CONTROL files before you changed them, save them with a different name now. The SAMPLE files are as follows:

DATA/AUDITTIMER/SAMPLE/CONTROL

DATA/AUDITMIRROR/SAMPLE/CONTROL

DATA/GENFORMAT/SAMPLE/CONTROL

DATA/LISTER/SAMPLE/CONTROL

DATA/SERVER/SAMPLE/CONTROL

DATA/ENGINE/SAMPLE/CONTROL

To use any of the new options, type them in your parameter file. SAMPLE files should only be used as templates to construct files.

Install the DATABridge Host

Before you install, you'll need to determine the usercode and pack that you'll use to install. For best results, we recommend that you choose a privileged usercode and the primary pack. Use the following procedure to install the DATABridge host software.

To install the DATABridge Host

- 1 **Sign in to the privileged usercode.** If you install from DVD to a nonprivileged usercode, all object files will be marked as restricted, which causes the installation WFL to pause (as explained in step 4).

- 2 **Copy the DATABridge installation WFL (WFL/DATABRIDGE/INSTALL) to the host.**

- If you're installing from uploaded files, upload DISKINSTALL and IMAGE files using a file transfer tool capable of binary/image transfers to the privileged usercode where DATABridge is to be installed. Sign on to the usercode, and then use the following command:

```
WFL UNWRAP *= AS = OUTOF DISKINSTALL
```

- If you're installing from the DVD, decompress the file

```
WFL UNWRAP *= AS = OUTOF *CDINSTALL FROM DB62 (KIND=CDROM)
```

In the WFL file, change DATABRIDGE to the version-specific DVD name and save the file:

```
G WFL/DATABRIDGE/INSTALL
```

```
REP /FROM DATABRIDGE/ /FROM DB62/ : T
```

```
SA
```

- 3 **If you're upgrading, back up the DATA/ENGINE/CONTROL directory in case problems exist with new keys.**

- 4 **Start the DATABridge Installation WFL.**

```
START WFL/DATABRIDGE/INSTALL
```

When prompted, respond with "OK<Transmit>", and then enter DATABridge keys.

- 5 **For first-time installations, create a new DBServer control file:**

```
COPY DATA/SERVER/SAMPLE/CONTROL AS DATA/SERVER/CONTROL
```

- 6 **Edit the DBServer control file:**

- a) Change `SOURCE <datasourcename>` to the name of the data source that the client uses.
- b) (Optional) Change `TCP/IP Port = 11367` (the default) to the port you use.

- c) Change Database = DESCRIPTION/<dbname> ON <packname> to reflect the usercode/location of the description file for the database to be cloned.

- 7 **(Recommended) Enable the DATABridge Plus software for near real-time access to audit files.** Execute the following command (replacing <usercode> and <pack> with your values):

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

- 8 **Start the DATABridge Server.**

If you are upgrading, you must first bring down the server using the AX QUIT command.

```
START WFL/DATABRIDGE/SERVER
```

After you've successfully installed the DATABridge Host software, do the following:

- Recompile your tailored support libraries. Enter the following command (replacing <usercode>, <dbname>, and <pack> with your values):

```
START WFL/DATABRIDGE/COMP ("SUPPORT", "<usercode><dbname> on
<pack>")
```

For more information, see the *DATABridge Host Administrator's Guide*.

- If your database uses guardfiles, you can include DATABridge under database guardfile validation. See Set Up Guardfiles (page 39).
- For information about security options, see "DATABridge Security" in the *DATABridge Host Administrator's Guide*.

Set Up Guardfiles

If your database uses guardfiles, DATABridge can be included under database guardfile validation. For validation of guardfiles to work, the relevant guardfile must specify read access (RO) for the DATABridge Accessory and/or the usercode under which the DATABridge Accessory is running.

In addition, the DATABridge (DBEngine) must have read access to the actual database guardfile. You can accomplish this in one of the following ways:

- Run the DATABridge Accessory under the usercode that owns the guardfile. For example, if the guardfile is (PROD) GUARDIAN/FILE, run the Accessory under the PROD usercode.
- Change the security of the guardfile to PUBLIC IN.
- Make sure that DBEngine is a privileged program. DBEngine is marked as a privileged program on the release tape.

Note: Access to the guardfile itself is enforced by the MCP. Therefore, even if you make the database visible to the Accessories, you must still give DBEngine read access to the guardfile, as explained above.

DATABridge Components and Guardfiles

DATABridge Accessories and the DATABridge Server Workers (but not the DATABridge Server itself) must have read access to the database (physical or logical) they are using. No other rights are necessary. Since GenFormat and DBInfo (when searching for a quiet point) always use the physical, rather than a logical, database, they must have read access to the physical database only.

DBEngine and Extract Workers

The DBEngine and its Extract Workers must have OPENUPDATE access to the physical database. This allows the extract routines to set markers in the audit trail and to switch the active audit file. In addition, the Extract Workers require FIND access for reading the data set records during a clone.

Here's an example of guardfile fragments for a physical database. (In this example, the fictional site runs up to three Extract Workers and has DATABridge software installed under the (DB) usercode on the family named DBPACK.)

```
PROGRAM (DB)OBJECT/DATABRIDGE/DBINFO ON DBPACK = RO;
PROGRAM (DB)OBJECT/DATABRIDGE/GENFORMAT ON DBPACK = RO;
PROGRAM (DB)OBJECT/DATABRIDGE/ENGINE ON DBPACK = RW,
DMVERBS = (OPENINQUIRY, OPENUPDATE);
PROGRAM (DB)EXTRACT/WORKER/0 = RW,
DMVERBS = (OPENINQUIRY, OPENUPDATE, FIND);
PROGRAM (DB)EXTRACT/WORKER/1 = RW,
DMVERBS = (OPENINQUIRY, OPENUPDATE, FIND);
```

The `DMVERBS` list for the physical database prevents any actual updating because DELETE, STORE, etc., are not allowed.

If you allow more than two Extract Workers to run concurrently, add entries like the ones above with the appropriate number for the last node.

Accessories and DATABridge Server Workers

The Accessories and DATABridge Server Workers (but not the DATABridge Server itself) must be listed in the guardfile that protects the database they will be using. However, if they use a logical database instead of a physical database, put these entries in the guardfile that protects the logical database.

Here's an example of guardfile fragments for a physical or logical database. (In this example, DATABridge is installed under the (DB) usercode on the family named `DBPACK` and the DATABridge Clients run on hosts called `IPADDRESS1` and `IPADDRESS2`.)

```
PROGRAM (DB)OBJECT/DATABRIDGE/SPAN ON DBPACK = RO;
PROGRAM (DB)OBJECT/DATABRIDGE/SNAPSHOT ON DBPACK = RO,
PROGRAM (DB)OBJECT/DATABRIDGE/LISTER ON DBPACK = RO;
PROGRAM (DB)OBJECT/DATABRIDGE/TANKER ON DBPACK = RO;
PROGRAM (DB)OBJECT/DATABRIDGE/AUDITTIMER ON DBPACK = RO;
PROGRAM (DB)DBSERVER/WORKER/1 ON IPADDRESS1 = RO;
PROGRAM (DB)DBSERVER/WORKER/1 ON IPADDRESS2 = RO;
PROGRAM (DB)DBSERVER/WORKER/2 ON IPADDRESS1 = RO;
PROGRAM (DB)DBSERVER/WORKER/2 ON IPADDRESS2 = RO;
```

If you allow more than two DATABridge Server Workers to run concurrently, add entries like the ones above with the appropriate number for the last node.

CHAPTER 5

Setting Up a Relational Database

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This chapter covers instructions for setting up a relational database to receive DMSII data.

Setting Up a SQL Server Database (Windows)

Use the following procedures to set up a Microsoft SQL Server database for use with the DATABridge Client for SQL Server.

The DATABridge Client uses only the ODBC data source parameter to connect to ODBC. The ODBC data source parameter provides the database and server parameters required to run BCP.

In addition, the following notes apply to Microsoft SQL Server:

- The default schema for the DATABridge user determines the ownership of tables.
- The DATABridge Client for SQL Server 6.0 and later uses only the ODBC client. The ODBC client places no restrictions on the user's schema when using SQL Server 2005 or later.
- You can use primary keys with non-clustered indexes without having to edit the scripts generated by the client.
- The DATABridge Client for SQL Server supports the data type bigint (which can be used for numeric data) and the SQL Server 2008 data types date, datetime2 and time. To maintain backward compatibility for bigint, enable the parameter use_bigint.

To set up a SQL Server database

- 1 If you use Integrated Windows Authentication with the DATABridge Client on Microsoft SQL Server 2012 and are running the service using the default account, you must add NT AUTHORITY\SYSTEM to the sysadmin Server Role. In the Microsoft SQL Server 2012 Management Studio, use the left pane to navigate to **Security > Server Roles**, right-click **sysadmin**, select **Properties**, and click the **Add** button.
- 2 Create an ODBC data source, unless one already exists. See the following procedure for instructions.

Important: When creating data sources for the DATABridge Client, use the Microsoft SQL Server Native Client driver. The Microsoft SQL Server driver doesn't support columns longer than 32K, multi-threaded updates, and several other important DATABridge features.

- 3 Make sure that you have enough disk space free for the Microsoft SQL Server database.
- 4 If your DMSII data sets contain case-sensitive ALPHA key items, using the default Microsoft SQL Server installation may result in duplicate keys. To avoid this, perform a custom installation of Microsoft SQL Server and set the Sort Order to Dictionary, case-sensitive. The only way you can change sort order case-sensitivity is via installation.

Create an ODBC Data Source

Use this procedure to set up an ODBC data source. If you have not created a new SQL Server database, and are not using an existing database, you must create a new database as outlined in the previous section. This database will hold your DATABridge Client control tables and the replicated DMSII tables.

To create an ODBC Data Source

- 1 Click **Start > Settings > Control Panel > Administrative Tools**. Within **Administrative tools**, double-click **Data Sources (ODBC)**.
- 2 In the **ODBC Data Source Administrator**, click the **User DSN** or **System DSN** tab. User DSNs are limited to the user who created them. System DSN data sources are available to all users of the computer and are required if you use the service.
- 3 Click the **Add** button.
- 4 In the **Create New Data Source** dialog box, select the driver **SQL Native Client**, and then click **Finish**.

Caution: The driver **SQL Server** doesn't support columns longer than 32K, multi-threaded updates, and several other important DATABridge features.

- 5 In the **Create a New Data Source to SQL Server** wizard, name the data source, such as its database name followed by DS. You will enter this name as the data source parameter value in the DATABridge Client configuration file.
- 6 In the **Server** field, choose your local computer name, and then click **Next**.
- 7 To connect to this data source, choose an authentication method, and then click **Next**:

Integrated Windows Authentication

SQL Server uses the credentials of the currently logged in user to validate the login. Most installations use Integrated Windows Authentication.

Note: If you select this option on Microsoft SQL Server 2012 and are running the service using the default account, you must add NT AUTHORITY\SYSTEM to the sysadmin Server Role. In the Microsoft SQL Server 2012 Management Studio, use the left pane to navigate to **Security > Server Roles**, right-click **sysadmin**, select **Properties**, and click the **Add** button.

**SQL Server
Authentication**

DATABridge connects to SQL Server using the user ID/password pair specified in the DATABridge configuration file.

- 8 Click **Finish** to create the ODBC data source.

Setting Up an Oracle Database (Windows)

The following notes apply to Oracle:

- The Oracle clients have a configuration parameter that allows you to specify a rollback segment, specifically one that is much larger than the default rollback segment. Rollback segments are used to construct a SET TRANSACTION USE ROLLBACK SEGMENT SQL statement that is executed at the start of every transaction.
- The Oracle clients support the CLOB data type for holding DMSII ALPHA items that are too large for the VARCHAR2 data type. The parameters in PL/SQL stored procedures for these clients limit the CLOB data type to 32K (Oracle 11g) and 16K (Oracle 10g2 and 9i). For backward compatibility, this feature is enabled via the `use_clob` parameter.
- The Windows clients work with all recent Oracle databases including Oracle 9i, 10g, and 11g.
- Starting in Oracle 11g Release 2, Oracle database passwords are case-sensitive.

The Oracle `open_cursors` Parameter

It is recommended that you add the `open_cursors` parameter to the `initSID.ora` file. Depending on the setting of the `aux_stmts` parameter, you may need to increase the value of `open_cursors` to make it slightly higher than the value of `aux_stmts`.

If `open_cursors` is not set high enough, an error occurs, indicating that the maximum number specified was exceeded. Refer to your Oracle documentation for information on setting these values.

Running the Oracle Client on a Non-English Database

If you run the DATABridge Oracle Client on a non-English language database (for example, Portuguese, Spanish, French, German), you may run into problems with replicated data that includes decimals. DATABridge follows the U.S. standard of using a period to represent a decimal mark, unlike most European languages, which use a comma.

DATABridge Oracle Client is designed to use SQL statements that assume the database language is U.S. English. Therefore, you must make the following changes before running the DATABridge Oracle Client to ensure that these numeric values are correctly interpreted and won't result in SQL errors.

- 1 Create a file called `script.user.session` in the `scripts` directory that contains the following statement. If this file already exists, add this statement to it.

```
ALTER SESSION SET NLS_LANGUAGE= 'AMERICAN' NLS_TERRITORY= 'AMERICA'
```

- 2 Modify the Bulk Loader settings in the Client configuration.
 - a) From the Client Console, right-click the data source and choose **Client Configuration**.
 - b) From the left panel of the **Client Configuration** dialog box, click **Bulk Loader and make the following changes:**

- c) For **Delimiter**, enter the pipe symbol (|). (You can use a different symbol, provided it isn't a number, a decimal character, a comma, a plus or minus character, or a quotation mark; however, the pipe symbol tends to be most readable.)
- d) Select the check box **Use comma for decimal character**, and then click **OK**.

Note: Alternatively, you can modify the bulk loader settings by exporting the Client configuration file and editing the [bulk loader] values as follows:

```
Bcp_decimal_char=", "
Bcp_delim="|"
```

For instructions, see Appendix C: Client Configuration in the *DATABridge Client Administrator's Guide*.

Setting Up a User ID

If you're installing DATABridge Client software for the first time, you must set up a user ID that allows the client to access the relational database.

Microsoft SQL Server

If you are the Microsoft SQL Server database administrator (DBA) or if you have a user ID with DBA privileges, set up a user ID for the DATABridge Client that has the following.

Caution: Do not use the `sa` user ID to run the DATABridge Client. The `sa` user ID typically owns tables that the DATABridge Client should not have access to.

- (Required) The ability to select from any table, including system tables. DATABridge reads the data dictionary to determine if a table or procedure exists.
- (Required) The ability to create tables, stored procedures, and indexes for tables that the user ID owns.
- (Optional) Unlimited space usage. This is recommended because of the large amounts of data that can be replicated from a DMSII database.

To include rights to modify the database as needed, use the DATABridge owner (`db_owner`) to set up the user ID. After you set up the user ID, you must configure the user ID, password, server, and database. For instructions, see Signon Configuration. (page [46](#))

Oracle

If you are the database administrator (DBA), or if you have a user ID with DBA privileges, set up a user ID for the DATABridge Client that has the following. Note that Oracle version 11g R2 and later uses case-sensitive passwords.

Caution: Do not use IDs such as `SYS`, `SYSTEM`, or `SYSMAN` to run the DATABridge Client. These user IDs typically own tables that the DATABridge Client should not have access to.

- (Required) The ability to select from any table, including system tables. It is highly recommended that you configure the user ID with DBA privileges.

- (Required) The ability to create tables, stored procedures, and indexes for tables that the user ID owns.
- (Optional) Unlimited tablespace privileges. This is recommended because of the large amounts of data that can be replicated from a DMSII database.

For information on creating a user ID, see your Oracle documentation.

Signon Configuration

If you have installed the DATABridge Client software for the first time, you must supply the appropriate logon parameters to your relational database. In addition, you may be required to supply a password to sign on to the DATABridge Server on the host.

When you create a new data source from the Client Console, the **Hostname** and **Port** settings (in the **Add Data Source** dialog box) provide these logon parameters. If a **KEY** is specified for the source in the DATA/SERVER/CONTROL, provide one in the **Password** box. These settings are saved to the binary Client configuration file (`dbridge.cfg`), which automatically encodes passwords.

If you supply logon parameters via `dbutility` command-line options, you must type them each time you run `dbutility`.

Note: Configuration file settings override environment variables. However, command-line options override both configuration file settings and environment variables.

Signon Parameters

The following table shows signon parameters in the `dbutility` configuration file (`dbridge.cfg`) and their equivalent command-line options.

Configuration file parameter	Command-line option	Description
user	-U	Specifies the user ID for the relational database. The user ID must have read and write access to the designated database.
password	-P	Specifies the password associated with the user ID for the relational database. Note that Oracle 11g and later uses case-sensitive passwords. Configuration file only: If the password contains non-alphanumeric characters besides the underscore (<code>_</code>), you must enclose it in double quotation marks, as follows: <code>password = "a\$bb%"</code>
database	-D	For Oracle, this name identifies the Oracle instance or Net8 service being accessed. If the service name contains non-alphanumeric characters, they must be enclosed in double quotation marks, as follows: <code>database = "orcl.databridge.com"</code>

datasource	-O	For the DATABridge SQL Server client, this parameter is the name that identifies the ODBC data source, as configured within the Windows Control Panel.
use_nt_authen	-W	When the ODBC data source uses Integrated Windows authentication, set this parameter to True. When the ODBC data source uses SQL Server Authentication (using userid and password), set it to False. If you set this parameter incorrectly, the client will work, but bulk loader operations will fail.

Integrated Windows Authentication for Microsoft SQL Server

The Microsoft SQL Server database provides two methods for database user authentication. *SQL Server authentication* uses a userid/password mechanism to authenticate user connections to SQL Server. *Integrated Windows Authentication* relies on the Windows operating system to authenticate user connections to SQL Server.

Note: The DATABridge Client requires a user account with administrator privileges when using Integrated Windows Authentication to access SQL Server. For details about `use_nt_authen`, see [signon] in Appendix C of the *DATABridge Client Administrator's Guide*.

CHAPTER 6

Getting Started

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Next Steps for the DATABridge Client

After the installation is complete, you can start using the DATABridge Client. If you're using the DATABridge Client for the first time, we recommend that you run it from the Client Console.

If you're upgrading and want to start using the Client Configurator to customize your relational database, see [Switch from User Scripts to the Client Configurator](#) (page [53](#)).

If you're upgrading and plan to run the Client from a command line, use your existing Client configuration file. See [Appendix C](#) in the *DATABridge Client Administrator's Guide* for information about configuration parameters.

Start the Service / daemon

If you installed the Client Console, use one of the following procedures to start the service (Windows) or daemon (UNIX).

To start the service (Windows)

- 1 From the **Start** menu, choose **Settings > Control Panel > Administrative Tools > Services**.
- 2 In the **Services** window, double-click **Attachmate DATABridge 6.2 Client Service**, and then click the **Start** button.

If the service doesn't start, the specified port may be in use. Check the service log file in Documents and Settings\All Users\Application Data\Attachmate\DATABridge\6.2\logs.
- 3 To stop the service, select **Attachmate DATABridge Client 6.2 Service**, and click **Stop**.
- 4 (Optional) On the recover tab, specify that the service is restarted after the first or second failures. (Do not set more than two failures; if the service fails more than that, you'll want a service failure to inform you of the problem.)
- 5 Start the Client Console and follow the instructions to add the service.

To start the daemon (UNIX)

- 1 Log in using the user ID you specified for the daemon in step 7 of the installation instructions (page [27](#)) or as a user with root privileges. If you start the daemon from the root (for example, by typing `su`), the daemon automatically assumes the specified user ID.
- 2 Make sure that you specified the appropriate environment variables in the `dbdaemon` script. If you use Oracle, add the Oracle `bin` directory to the `PATH`. Failing to do this causes the bulk loader scripts to not find the `sqlldr` program. Also, add the Oracle `lib` directory to the `LD_LIBRARY_PATH` environment variable (64-bit systems) or the program will be unable to find the shared libraries and will not start. For more information, see [Install the DATABridge Client on UNIX \(page 27\)](#).
- 3 Start the daemon by doing one of the following.

- On Linux and Solaris systems, type:

```
/etc/init.d/dbdaemon start
```

- On HP_UX systems, type:

```
/sbin/init.d
```

The daemon automatically creates the `config` and `logs` subdirectories for the data source working directory, and then places a binary configuration file (`dbcontrol.cfg`) in the `config` subdirectory. This configuration file is updated each time you add a new data source in the Client Console.

Note: You can start or stop the daemon anytime by manually running the script with the appropriate options (start or stop).

- 4 If you're using the Client Console, see [Start the Client Console \(page 52\)](#).

Introducing the Batch Console

The Batch Console automates routine Client tasks by allowing command files/shell scripts launched by the Client service to interact with the service. It interprets a source file that contains a set of statements written in a language similar to Visual Basic. These statements can initiate a connection, perform rudimentary tests, and issue console requests, to the service. For example, by using the Batch Console in an end-of-run script that runs daily reports, you can restart the Client after the reports are generated.

To use the Batch Console, you must first create a source file for the Batch Console and place it in the `scripts` directory of the service's working directory (also referred to as the Client's global working directory). We recommend that you use a file extension that allows you to easily identify this file as a Batch Console source file (for example, `.bcs`). You can debug this source file by running the Batch Console from the command line, using the source filename (including directory, such as `scripts\source_filename`) as the first argument of the Batch Console command.

The Batch Console always runs as a background run. Its activity is written to a log file in the current directory. The log filename uses the source filename with the extension `.log` added to it. For example, if your source filename is `sourcefile.bcs` the log file is named `sourcefile.bcs.log`.

Start the Client Console

After the service has been started, start the Client Console and connect to the service. See [Starting the Service](#) (page 50).

To start the Client Console on Windows

- 1 From the **Start** menu, choose **Programs** > **Attachmate DATABridge** > **DATABridge Client Console 6.2**.
- 2 From the Client Console, click the **Help** menu, and then click **Help Contents** or **Cheat Sheets** for instructions on getting started.

To start the Client Console on UNIX

- 1 From a command line, run the following command

```
cd <install_path>/dbconsole
```

where `<install_path>` is the location to which you installed the Client Console.

- 2 Next, run the following command:

```
./dbconsole &
```

- 3 From the Client Console, click the **Help** menu, and then click **Help Contents** or **Cheat Sheets** for instructions on getting started.

Switch from User Scripts to the Client Configurator

If you currently customize your database via user scripts but wish to start using the Client Configurator, you must first run the `dbscriptfixup` program for each of your data sources. This program updates the client control tables so that you no longer need the user scripts. The `dbscriptfixup` program also creates a new set of user scripts that are compatible with the Client Configurator for backup purposes.

Note: This task is not time-sensitive and can be completed at any time after installation. We recommend that you get the DATABridge Client 6.2 running to your satisfaction before you perform this task.

To run `dbscriptfixup`

- 1 Create a backup copy of your user scripts.
- 2 Open a command prompt and change the directory to the working directory of a data source.
- 3 Run the `dbscriptfixup verify` command (replacing `<data_source>` with the actual name):

```
dbscriptfixup verify <data_source>
```

The `dbscriptfixup` program performs a read-only review of the user scripts and reports changes you must make to the scripts.

- 4 Make any changes if indicated by the `dbscriptfixup` program and then repeat step 2 until you get no errors. You may want to remove or rename problem user scripts and deal with them later.
- 5 Back up the control tables for the data source to an unload file by typing the following command:

```
dbutility unload <data_source> <data_source>_control_tables.sav
```

- 6 Run the `dbscriptfixup upgrade` command:

```
dbscriptfixup upgrade <data_source>
```

- 7 Depending on the results of step 6, do one of the following:
 - If the command succeeded (exit code=0), you can now use the Client Configurator. If you want to verify the process, see the following section.
 - If the command failed (exit code=1), reload your control tables by typing the following command and then replace any user scripts you changed in step 4 to restore the configuration to its previous state.

```
dbutility reload <data_source> <data_source>_control_tables.sav
```

Verifying the results

You can verify that the `dbscriptfixup` program successfully updated your control tables by executing a `redefine` command for the data source with the `-R` option. If the command finds no changes in the table layouts, you can safely use the Client Configurator, knowing that all of the changes you made via user scripts are preserved.

Starting Enterprise Server

You can start DATABridge Enterprise Server using the shortcuts installed on the Windows Start menu or from a command prompt session. When you start Enterprise Server from the Start menu, Enterprise Server starts the application with Administrator privileges (required on Windows Vista and Windows 2008). Administrator privileges are only required to control the DBDirector service on Windows XP and 2003. Additionally, Enterprise Server can be started by DBDirector anytime DBDirector receives a connection request from a DATABridge Client.

From the Enterprise Server **Help** menu, you can find instructions for importing sources (upgrades), creating sources (new installations), and configuring the program.

To start from the Start menu

- From the **Start** menu, select **All Programs > Attachmate DATABridge 6.2 > DATABridge Enterprise > Configure Enterprise** to run Enterprise Server with elevated administrator privileges.

When Enterprise Server starts, the DATABridge Enterprise window appears.

To start from a command session

- Navigate to the directory where you installed Enterprise Server and type the following:

```
DBEnterprise.exe
```

For information about command-line options, see the *DATABridge Enterprise Server Help*.

Installation Results

This section includes lists of files that are installed with each product.

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OBJECT/DATABRIDGE Directory

The DATABridge Host files are copied to the usercode designated at installation.

Filename	Description
OBJECT/DATABRIDGE/AUDITMIRROR	Object code for the DATABridge AuditMirror Accessory
OBJECT/DATABRIDGE/BCNOTIFY	Object code for the BCNOTIFY utility
OBJECT/DATABRIDGE/SPAN	Object code for the DATABridge Span Accessory
OBJECT/DATABRIDGE/DBINFO	Object code for the DATABridge Database Info utility
OBJECT/DATABRIDGE/ENGINE	Object code for DATABridge Engine library
OBJECT/DATABRIDGE/LISTER	Object code for the DATABridge Lister Accessory
OBJECT/DATABRIDGE/SAMPLE/SQLGEN	Object code for the sample DATABridge SQLGen Accessory

OBJECT/DATABRIDGE/SAMPLE/DASDLGEN	Object code for the sample DATABridge DASDLGen Accessory
OBJECT/DATABRIDGE/SAMPLE/ COBOLGEN	Object code for the sample DATABridge COBOLGen Accessory
OBJECT/DATABRIDGE/SAMPLE/ AUDITCLOSE	Object code for the sample DATABridge Audit Close utility
OBJECT/DATABRIDGE/SAMPLE/READDOC	Object code for the sample DATABridge ReadDoc Accessory
OBJECT/DATABRIDGE/SAMPLE/MINISPAN	Object code for sample DATABridge MiniSpan Accessory
OBJECT/DATABRIDGE/SAMPLE/REFORMAT	Object code for sample data item conversion routines
OBJECT/DATABRIDGE/SAMPLE/MINILISTER	Object code for the sample DATABridge MiniLister Accessory
OBJECT/DATABRIDGE/SAMPLE/COBOLFORMAT	Object code for the sample COBOL format utility
OBJECT/DATABRIDGE/SAMPLE/EXTRACTADDRESS	Object code for the sample ExtractAddress library
OBJECT/DATABRIDGE/SAMPLE/ENCRYPT	Object code for the sample encryption library
OBJECT/DATABRIDGE/SERVER	Object code for the DATABridge Server Accessory
OBJECT/DATABRIDGE/TANKER	Object code for the DATABridge Tanker Accessory
OBJECT/DATABRIDGE/SUPPORT	Object code for the DATABridge Support Library
OBJECT/DATABRIDGE/SNAPSHOT	Object code for the DATABridge Snapshot Accessory
OBJECT/DATABRIDGE/GENFORMAT	Object code for the DATABridge GenFormat program
OBJECT/DATABRIDGE/AUDITTIMER	Object code for the DATABridge AuditTimer program

OBJECT/DATABRIDGE/AUDITSUPPORT	Object code for the DATABridge Plus library
OBJECT/DATABRIDGE/COBOLSUPPORT	Object code for DATABridge CobolSupport library
OBJECT/DATABRIDGE/KEYENTRY	Object code for product key library
OBJECT/DATABRIDGE/CHANGEUSER	Object code for the DATABridge ChangeUser library. ChangeUser changes the usercode of a Server Accessory Worker in cases where the SOURCE specifies a USERCODE, so the Worker will appear in response to a CANDE ?J (jobs) command or the ODT or MARC command A USER <usercode>, which lists all of the active programs running under usercode.

Files Installed with DATABridge Host

This section describes each of the files installed with DATABridge Host software.

DATABridge software is organized into the following directories:

Directory	Description
OBJECT/DATABRIDGE/=	Executable files
SYMBOL/DATABRIDGE/=	Source files
WFL/DATABRIDGE/=	WFL job files
DATA/=	Parameter and data files
PATCH/=	Source files

SYMBOL/DATABRIDGE Directory

The DATABridge Host files are copied to the usercode designated at installation.

Filename	Description
SYMBOL/DATABRIDGE/SAMPLE/LOAD	Source code for loading the sample DMSII database (COBOL file type)
SYMBOL/DATABRIDGE/SAMPLE/SQLGEN	Sample source code for generating an SQL script to create tables that correspond to a DMSII database. (ALGOL file type)
SYMBOL/DATABRIDGE/SAMPLE/COBOLGEN	Sample source code for generating COBOL file layouts corresponding to a DMSII database (ALGOL file type)
SYMBOL/DATABRIDGE/SAMPLE/AUDITCLOSE	Sample source code for closing a DMSII audit file (ALGOL file type)
SYMBOL/DATABRIDGE/SAMPLE/READDOC	Sample source code for reading audit records (ALGOL file type)
SYMBOL/DATABRIDGE/SAMPLE/DASDLGEN	Sample source code for generating a DMSII DASDL source corresponding to a DMSII database (ALGOL file type)
SYMBOL/DATABRIDGE/SAMPLE/DATABASE	Source code for defining the sample DMSII database (DASDL file type)
SYMBOL/DATABRIDGE/SAMPLE/MINISPAN	Sample source code for writing a COBOL program similar to the Span Accessory (COBOL74 file type)
SYMBOL/DATABRIDGE/SAMPLE/REFORMAT	Sample source code for writing data item conversion routines in a REFORMAT library (ALGOL file type)
SYMBOL/DATABRIDGE/SAMPLE/MINILISTER	Sample source code for writing a COBOL program similar to the Lister Accessory (COBOL74 file type)
SYMBOL/DATABRIDGE/SAMPLE/COBOLFORMAT	Sample source code for writing a formatting routine in COBOL (COBOL74 file type)
SYMBOL/DATABRIDGE/SAMPLE/EXTRACTADDRESSES	Sample source code for a library that will extract addresses and build VIRTUAL records (COBOL file type)
SYMBOL/DATABRIDGE/SUPPORT	Source code for the Support Library (ALGOL file type)

SYMBOL/DATABRIDGE/INTERFACE	Source code INCLUDE file for the API (ALGOL file type)
SYMBOL/DATABRIDGE/INTERFACE/FC	Source code for the COBOL API; contains File Control declarations (COBOL74 file type)
SYMBOL/DATABRIDGE/INTERFACE/FD	Source code for the COBOL API; contains File Description declarations (COBOL74 file type)
SYMBOL/DATABRIDGE/INTERFACE/PD	Source code for the COBOL API; contains Procedure Division statements (COBOL74 file type)
SYMBOL/DATABRIDGE/INTERFACE/WS	Source code for the COBOL API; contains Working Storage declarations (COBOL74 file type)
SYMBOL/DATABRIDGE/COBOLSUPPORT	Source code for providing entry points to COBOL Accessories for filtering and formatting routines in the Support Library (ALGOL file type)

WFL/DATABRIDGE Directory

The DATABridge Host files are copied to the usercode designated at installation.

Filename	Description
WFL/DATABRIDGE/AUDITMIRROR	Work flow that receives mirrored audit files on the secondary computer
WFL/DATABRIDGE/BCNOTIFY	Work flow for executing BCNOTIFY
WFL/DATABRIDGE/COMP	Work flow for compiling a DATABridge sample program or the Support Library
WFL/DATABRIDGE/SPAN	Work flow for executing DATABridge Span
WFL/DATABRIDGE/DBINFO	Work flow for executing the DATABridge Database Info utility
WFL/DATABRIDGE/LISTER	Work flow for executing the Lister accessory
WFL/DATABRIDGE/NOTIFY	Work flow for notifying DATABridge Server of additional audit information

WFL/DATABRIDGE/SAMPLE/SQLGEN	Work flow for executing the SQLGen sample Accessory
WFL/DATABRIDGE/SAMPLE/ READDOC	Work flow for executing the ReadDoc sample Accessory
WFL/DATABRIDGE/SAMPLE/ COBOLGEN	Work flow for executing the COBOLGen sample Accessory
WFL/DATABRIDGE/SAMPLE/DATABASE	Work flow for creating and populating the sample database (BANKDB) supplied with DATABridge
WFL/DATABRIDGE/SAMPLE/MINISPAN	Work flow for executing the MiniSpan sample Accessory
WFL/DATABRIDGE/SAMPLE/AUDITCLOSE	Work flow for executing the Audit Close sample Accessory
WFL/DATABRIDGE/SAMPLE/MINILISTER	Work flow for executing the MiniLister sample Accessory
WFL/DATABRIDGE/SAMPLE/REMOVEAUDIT	Work flow for removing audit files
WFL/DATABRIDGE/SERVER	Work flow for executing DATABridge Server
WFL/DATABRIDGE/TANKER	Work flow for executing the Tanker Accessory
WFL/DATABRIDGE/INCLUDE/DBTITLE	Work flow that parses the DMSII database title for all other WFLs
WFL/DATABRIDGE/INSTALL	Work flow for installing the DATABridge software
WFL/DATABRIDGE/SNAPSHOT	Work flow for executing the Snapshot Accessory
WFL/DATABRIDGE/COPYAUDIT	Work flow that can be used in place of the DMSII COPYAUDIT WFL to postpone removal of audit files
WFL/DATABRIDGE/AUDITTIMER	Work flow for executing the AuditTimer utility

DATA Directory

The DATABridge Host files are copied to the usercode designated at installation.

Filename	Description
DATA/AUDITMIRROR/SAMPLE/CONTROL	Sample parameter file for the DBAuditMirror Accessory (SEQDATA file type)

DATA/LOAD/SAMPLE/DATABASE	Data for the sample database that you can use with DATABridge
DATA/ENGINE/CONTROL	Parameter file that contains the key information for running this release of DATABridge, as well as other options for DBEngine operation
DATA/ENGINE/SAMPLE/CONTROL	Sample DBEngine parameter file for specifying database-specific DBEngine parameters (SEQDATA file type)
DATA/LISTER/SAMPLE/CONTROL	Sample parameter file for the Lister Accessory (SEQDATA file type)
DATA/SERVER/SAMPLE/CONTROL	Sample parameter file for DATABridge Server (SEQDATA file type)
DATA/GENFORMAT/SAMPLE/CONTROL	Sample parameter file for the GenFormat program (SEQDATA file type)
DATA/AUDITMIRROR/SAMPLE/CONTROL	Sample parameter file for the AuditMirror program (SEQDATA file type)
DATA/AUDITTIMER/SAMPLE/CONTROL	Sample parameter file for the AuditTimer program (SEQDATA file type)
DATA/DATABRIDGE/README	CANDE text file that lists important notices and last minute information about DATABridge
DATA/DATABRIDGE/API/README	CANDE text file that lists important notices about using the DATABridge Programmer's Reference
DATA/DMSIIClient/README	CANDE text file that lists important notices about DATABridge DMSII Client
DATA/TWIN/README	CANDE text file that lists important notices about DATABridge Twin
DATA/AUDITSUPPORT/README	CANDE text file that lists important notices about DATABridge Plus

PATCH Directory

The DATABridge Host files are copied to the usercode designated at installation.

Filename	Description
PATCH/DATABRIDGE/DASDL/TWIN	A DASDL patch you must include in your database to run DATABridge Twin if your restart data set does not have the required fields

PATCH/DATABRIDGE/SAMPLE/SUPPORT/S TARTUP	Sample startup procedure for a Support Library
PATCH/DATABRIDGE/SAMPLE/SUPPORT/V RTUAL	Sample skeleton patch to the Support Library for a VIRTUAL TRANSFORM routine
PATCH/DATABRIDGE/SAMPLE/SUPPORT/R EFORMAT	Sample INTERNAL REFORMAT program
PATCH/DATABRIDGE/SAMPLE/SUPPORT/S HUTDOWN	Sample shutdown procedure for a Support Library
PATCH/DATABRIDGE/SAMPLE/SUPPORT/E RRORHANDLER	Sample error manager routine
PATCH/DATABRIDGE/SAMPLE/SUPPORT/F ORMATADDRESS	Sample formatting routine for VIRTUAL data sets

Files Installed with DATABridge Enterprise Server

Use this document to verify the default installation results for DATABridge Enterprise Server.

In addition to installing the Enterprise Server files, the setup program adds shortcuts to the Start menu from which you can configure a source and view the configuration and log files folder.

The following files are installed to C:\Program Files\Attachmate\DATABridge\6.2\Enterprise:

Filename	Description
Help folder	The DATABridge Enterprise Server Help files (.html) which are viewable from the program by selecting the Help menu or by pressing the F1 key.
Support folder	Header files and DBEUser.lib for compiling user-written libraries
Support\MakeUserLib.cmd	Batch file for building user-written libraries
DBDirector.exe	Windows service that listens for requests from DATABridge Clients and then initiates the Enterprise Server application
DBEnterprise.exe	Enterprise Server executable file
DBUI.dll	The optional message and dialog text for Enterprise Server, which can be translated into other (non-English) languages
EnumDisk.exe	Enterprise Server utility that lists the MCP disks available on the server where Enterprise Server is installed
FinishMirrored.cmd	Sample batch file to run whenever an audit file is successfully mirrored to the secondary system.
LINCLOG.dll	LINC log FileXtract Reader library
Notify.cmd	Sample batch file to run when the DATABridge Server accessory signals the availability of more audit files to process

Files Installed with the DATABridge Client and Client Console

During installation, the DATABridge Client 6.2 copies files to the install directory and a client-specific directory (such as SQLServer). On Windows, the install directory is located at C:\Program Files\Attachmate\DATABridge\6.2. In addition, the Attachmate Installer Program installs files that repair, reinstall, and remove the program to a Setup folder in this location.

In the following tables, the filenames represent both UNIX and Windows files. Windows extensions are provided in brackets ([]). The following files are copied to the install directory:

Filename	Description
bconsole[.exe]	The Batch Console automates routine Client tasks by allowing command files/shell scripts launched by the Client service to interact with the service. For more information, see the <i>DATABridge Client Administrator's Guide</i> .
DATABridge_Messages.dat	A binary file that the DATABridge service/daemon uses to retrieve the text associated with error status codes generated by various DATABridge components.
DBCIntControl[.exe]	The service (Windows) or daemon (UNIX) that automates most Client operations. It handles operator requests from the Client Console and routes all log and informational messages to the consoles. The service has no effect on dbutility command-line operations.
dbctrlconfigure[.exe]	A command-line program that implements the import and export commands for the service configuration file. It converts the service configuration file (dbcontrol.cfg) from its native binary format to text format (.ini) and back using the export and import commands.
logmaint[.exe]	A utility that allows you to delete all log files from the service and the individual data source directories except for the most recent N. Run this utility from the working directory for the service or the data source whose log files you want to manage. The number of files to retain are specified on the command line for logmaint as optional parameters. When used for the client, it has two parameters. The first parameter is for the DBClient and dbutility log files. The second parameter is for DBCInCfgServer log files. The parameters default to 10 and can be set to a value as low as 2.
readme.txt	A text file that contains late-breaking information for the product.

setfilesecurity.exe (Windows only) A Windows program that lets you set file security for all files and directories in the Working Directory, (which includes changes to the Windows registry). This program functions the same as the utility started by the installer, except that it doesn't allow you change the system or user path. You must run this program as Administrator.

The following files are copied to the client-specific directory:

Filename	Description
bcp_auditor.exe (Windows only)	A program that scans the bcp output to determine if the bcp utility was successful. The bcp_auditor utility sets the exit code correctly. This utility applies only to Microsoft SQL Server databases.
DBClient[.exe]	A Client program that is launched by the service. DBClient handles the processing of DMSII data and updates the same as dbutility, except that it runs as a background run and uses the Client Console to display its output and interact with the operator.
DBCIntCfgServer[.exe]	A program that handles all requests from the Client Console specific to a data source. These requests include updating the client configuration file, providing access to the client control tables, and handling the Client Configurator. Like DBClient, this program is run by the service as a background run.
*dbeatran.dll *dbgaiji.smp *dbtrans_jbis8.smp *dbtrans_v24jbis8.smp	Japanese double-byte translation DLL and sample configuration files. Depending on which character set the mainframe uses, copy the appropriate dbtrans file to the config directory as dbtrans.cfg. Also, copy the file dbgaiji.smp to the config directory as dbgaiji.cfg.
dbfixup[.exe]	A program used for updating existing client control tables when upgrading from a previous client release.
dbpwenc[.exe]	A program used to encode relational database and DBServer (or DBEnterprise Server) passwords in text configuration files and change passwords in text and binary configuration files.
<hr/> <p>Note: Passwords set in the Client Console are automatically encoded in binary configuration files.</p> <hr/>	

dbscriptixup[.exe]	An program that modifies the Client control tables according to changes specified by the user scripts and enables the Client Configurator to make future modifications to the table layout.
dbutility[.exe]	A program that runs the DATABridge Client from a command line.
getlogtail.exe (Windows only)	A program that extracts the tail of the current log file and writes it to the file <code>trace.log</code> .
migrate[.exe]	The upgrade program that updates configuration settings and creates the working directory structure. It copies the updated configuration files and any user scripts to the new working directory structure.
splitter[.exe]	A utility that splits large trace files into smaller files. Used primarily for sending files to Attachmate for troubleshooting.
dumpnullrecs[.exe]	A program that displays the content of the NULL record file for a given data source.

*Installed only when the Japanese language feature is selected.

Client Console Files

Files for the Client Console are installed in the following two directories at C:\Program Files\Attachmate\DATABridge\6.2.

Directory	Description
DBConfig	Contains the configuration file, initialization file, and plugins subdirectory. The plugins subdirectory which contains required Eclipse plugins and source code plugins for the DATABridge Client Configurator.
DBConsole	Contains the configuration file, initialization file, and plugins subdirectory. The plugins subdirectory which contains required Eclipse plugins and source code plugins for the DATABridge Client Console. The JRE subdirectory contains files for the Java Runtime Environment.