

DMSII CLIENT
ADMINISTRATOR'S GUIDE



Attachmate®

DATABridge™



July 2010

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Chapter Contents

About This Guide

This guide contains instructions for installing, configuring, and running the Attachmate DATABridge DMSII Client. This preface includes information to help you use this guide. The following sections are included in this preface:

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Audience

To install, configure, and run the DMSII Client, you must be an administrator, and you must be thoroughly 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

This guide uses the following conventions:

- Text that you type as well as messages and prompts that appear on the screen are shown in this type style.
- In addition to emphasizing text, *italic* indicates variables. For example, if you were asked to type START WFL/DATABRIDGE/DMSIICLIENT (*“databasename”*), you would type the actual name of the database in place of the italicized word.
- Actual file names and parameter names are in CAPITAL LETTERS, as follows:
DATA/DMSIICLIENT/*databasename*/CONTROL
- Optional items in a command are enclosed in [square brackets]. If you include the optional items, do not type the brackets.
- The terms *host* and *mainframe* are used interchangeably to refer to a Unisys MCP-hosted mainframe such as the CS7xxx series, Libra series, ClearPath NX/LX series, or A series.



Caution: This caution icon indicates that there is a possibility of losing data or corrupting files. When you see this caution icon, follow the instructions carefully.

Abbreviations

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

Abbreviation	Name
AA	Absolute address
ABSN	Audit block serial number
AFN	Audit file number
API	Application programming interface
DASDL	Data and Structure Definition Language
DMSII	Data Management System II
INX	Index
MCP	Master control program
RPC	Remote procedure call
SEG	Segment
WFL	Work flow language

Related Documentation

The following is a list of the documentation you might need to consult when using the DMSII Client.

DMSII Client Readme File

The DMSII Client Readme file contains important information, including any information that became available after this guide was written. You can view the DMSII Client Readme file in either of the following locations:

Installation CD Location	Installed Location
Docs\readme_dmsiiclient.txt	DATA/DMSIICLIENT/README

DATABridge Database Replication Software

Before you can use the DMSII Client, the DATABridge host database replication software must be installed and operating on the primary system. The DATABridge host software is documented in the *DATABridge Host Administrator's Guide*, which is located in the DOCS folder on your DATABridge installation CD.

DATABridge Plus

DATABridge Plus is a system library that offers near real-time access to DMSII audit files by enabling DATABridge to access the current audit file. It works with all DATABridge Accessories and is documented in the *DATABridge Plus Administrator's Guide*, which is located in the DOCS folder on your DATABridge installation CD.

DATABridge Plus is available on your DATABridge host installation medium.

Unisys Mainframe

You should have available standard Unisys ClearPath NX/LX series or A Series, DMSII, WFL, and CANDE documentation. This guide lists only general instructions. If you are not completely familiar with DMSII configuration, for example, you might need to refer to the Unisys documentation.

Introducing DMSII Client

1

In This Chapter

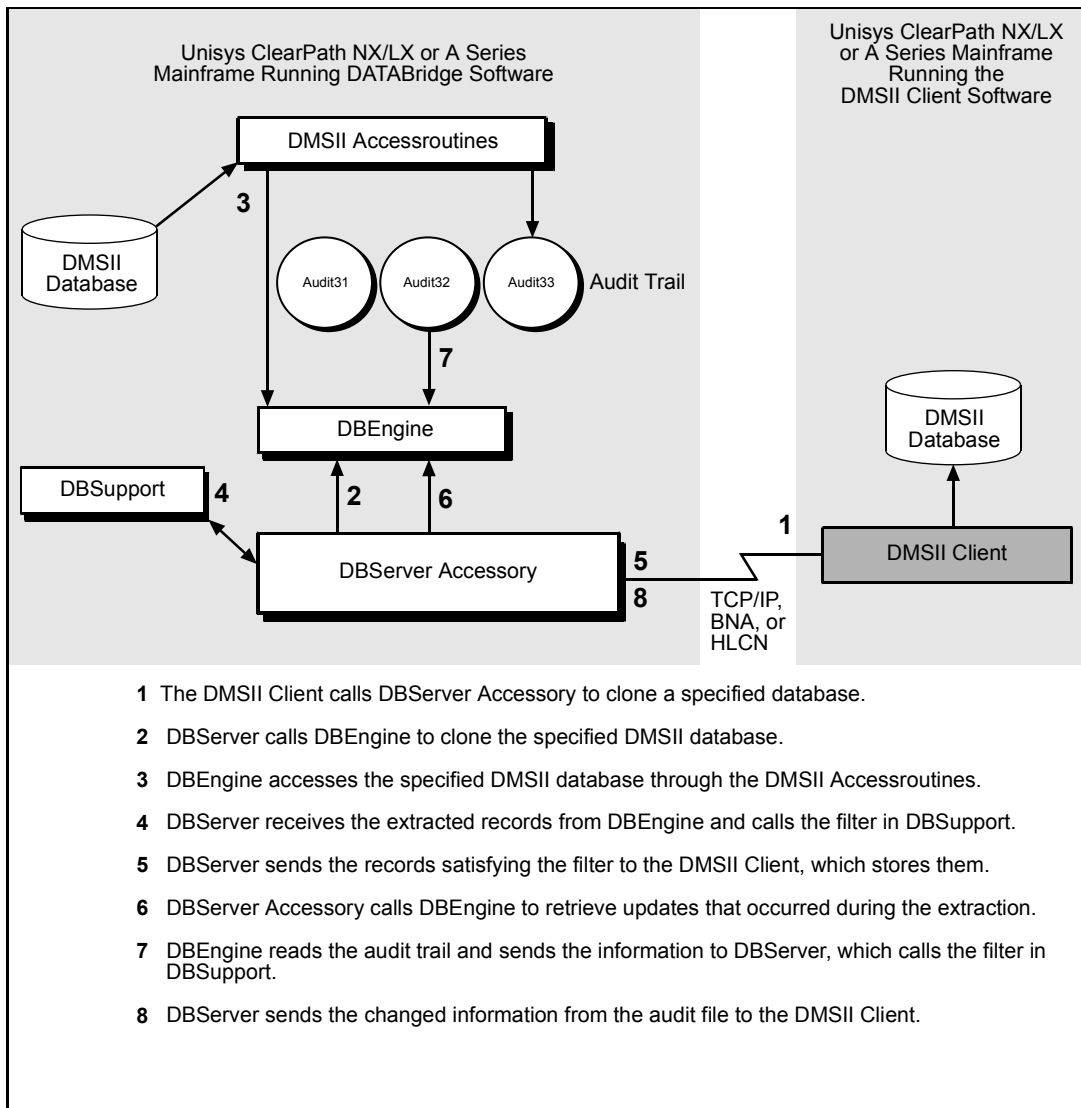
This chapter explains what the DATABridge DMSII Client is, how it works, and the different components of DATABridge. The following sections are included in this chapter:

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DMSII Client Support for DMSII Structure Types	5
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Introducing the DMSII Client

The DMSII Client is a mainframe program that works with the DATABridge host software to replicate (clone and then update) a DMSII database as another DMSII database. Updates to the client database occur as DMSII audit becomes available.

The following diagram shows how the DMSII Client works:



Understanding the DATABridge Components

Each component of the previous diagram is explained in this section.

DMSII Accessroutines

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

Audit Trail

The audit trail contains all of the audit files generated for a database. The audit trail consists of audit files named as follows:

databasename/AUDITnnnn

where *databasename* is the name of the DMSII database, AUDIT is a literal, and *nnnn* is the audit file number (AFN), a number between 1 and 9999. For example, if you have a database named BANKDB, an audit file would be named similar to the following:

BANKDB/AUDIT7714

DMSII Database

One of the primary reasons to replicate a DMSII database is to provide data to end users with minimum impact on host resources. Therefore, the data you replicate should be the data that end users will request most often. Most sites do not clone entire DMSII databases.

The original database is called the primary database. The database the DMSII Client creates is called the client database.

DATABridge Engine

The DATABridge Engine (DBEngine) is the main part of the DATABridge replication software, which is explained in the *DATABridge Host Administrator's Guide*. DBEngine is a host system library that retrieves structural information, layout information, and data from the DMSII database and passes the information to the Server Accessory.

Support Library

The DATABridge Support Library provides filtering and translation to the Server Accessory (as well as other DATABridge Accessories). Once the Server Accessory receives data from DBEngine, it calls the Support Library to determine if the data should be replicated, and if so, the Server Accessory passes the data to the Support Library for formatting. In brief, the Support Library offers the following to the DMSII Client:

- Virtual data sets
Virtual data sets appear as normal data sets to the Server Accessory and the DMSII Client, even though they do not actually exist in the DMSII database.
- Data set filtering
- Column filtering
- Row filtering

For a complete explanation of data set, column, and row filtering, see the *DATABridge Host Administrator's Guide*.

Server Accessory

The DATABridge Server Accessory (also referred to as DBServer) provides communications between the DMSII Client and DBEngine on the host. The Server Accessory calls all DBEngine functions for the DMSII Client. In general, Server Accessory responsibilities include the following:

- Communicating with the DMSII Client.
If you configure the auto connect feature in both Server Accessory and the DMSII Client, Server Accessory initiates communication with the DMSII Client when audit files become available. If you do not use the auto connect feature, Server Accessory waits until it is called by the DMSII Client.
- Sending replicated DMSII data from DBEngine to the DMSII Client.
- Sending DMSII database layout information from DBEngine to the DMSII Client.

Note: Frequently, you can enhance performance by having the DMSII Client communicate with DATABridge Enterprise Server instead of the Server Accessory. To configure this, in the DMSII Client parameter file, enter the IP address of Enterprise Server instead of the Server Accessory.

DMSII Client Support for DMSII Structure Types

The DMSII Client supports data sets, remaps, and logical databases. Data sets in the client database will have additional data items that do not appear in the primary database. These data items make it easier to locate records during tracking.

The DMSII Client makes embedded data sets disjoint in the client database. Consequently, application programs designed for the primary database may need to be modified in order to compile and run properly against the client database.

Data Sets

The DMSII Client supports all DMSII data set structure types except for the following.

- Compact data sets
- Data sets embedded within an ORDERED or COMPACT data set
- Embedded data sets if INDEPENDENTTRANS is reset
- Partitioned structures

Note: For information on DMSII structure types supported by DATABridge Clients, see the *DATABridge Client Administrator's Guide*.

Data Items

The DMSII Client supports all types of DMSII data items except for the following:

- POPULATION
- COUNT
- FILLER
- AGGREGATE

Understanding How the DMSII Client Works

Following is a simplified description of how the DMSII Client works. This description starts after all of the necessary DATABridge database replication software and DMSII Client components are correctly installed and configured.

- 1** Run the DMSII Client WFL.

The DMSII Client contacts the Server Accessory for required database information to create the DASDL code that it then compiles as the client database. After this, the DMSII Client sends a request for data to the Server Accessory.
- 2** The Server Accessory initiates DBEngine to extract data from the specified database.

The Server Accessory then sends the database information to the DMSII Client.
- 3** The DMSII Client populates the client database and then either waits for additional audit information or terminates.
 - If the DMSII Client waits for additional audit information, it periodically contacts the Server Accessory to see if updates are available.
 - If the DMSII Client terminates and it is registered for auto connect requests, the Server Accessory will initiate the DMSII Client when additional audit information becomes available.
- 4** As audit becomes available, the Server Accessory uses DBEngine to retrieve the after-images of modified records, which it then sends to the DMSII Client.
- 5** The DMSII Client updates the client database with the new information and then either waits for additional audit information or terminates.

Chapter 1 *Introducing DMSII Client*

Installing, Configuring, and Starting the DMSII Client

2

In This Chapter

This chapter explains how to install, configure, and start the DMSII Client. The following sections are included in this chapter:

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Installation Requirements

You can install the DMSII Client to either the same mainframe where you installed the DATABridge database replication software or you can install it to a different mainframe.

The DMSII Client runs on all Unisys MCP-hosted mainframes.

For the DMSII Client to work properly, your host systems must meet the following requirements:

- Your system must use MCP level SSR 49.1 or later.
- You must be running DATABridge Host software 5.0 or later.

Installing the DMSII Client

Complete the following steps to install the DMSII Client:

- 1 Sign on to the usercode where you plan to install the DMSII Client.
- 2 Copy the DMSII Client installation WFL from the release medium to your host. Use one of the following methods:

- If you are installing from DVD, use the following command:

```
WFL UNWRAP *WFL/DATABRIDGE/INSTALL AS
      WFL/DATABRIDGE/INSTALL OUTOF *INSTALL FROM DBXX (CD)
      TO DISK (RESTRICTED = FALSE)
```

where XX is the version of the software with no decimals. For example, DB61.

It is recommended that you install to a 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 (step 4).

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

```
WFL UNWRAP *WFL/DATABRIDGE/INSTALL AS WFL/DATABRIDGE/
      INSTALL OUTOF DISKINSTALL
```

- 3** From CANDE, start the installation WFL as follows:

```
START WFL/DATABRIDGE/INSTALL ("DMSIIClient"  
    [, "familyname"])
```

where *familyname* is an optional pack name that defaults to DISK. This allows family substitution to determine where the DMSII Client will be installed. If you use this parameter, do not type the [brackets], but do type the quotation marks.

- 4** When prompted, enter the access code (same as license key) provided with the host installation medium. (If you're installing for evaluation purposes, enter the evaluation code.)

If the installation WFL pauses, continue with step **a**.

Otherwise, the installation procedure is complete.

- a** If you installed from DVD to a nonprivileged usercode and the installation WFL is paused, you must unrestrict OBJECT/DATABRIDGE/KEYENTRY, as in this example:

```
RESTRICT -FILE (ENGR) OBJECT/DATABRIDGE/KEYENTRY ON  
    PRODUCTION
```

- b** After you have unrestricted OBJECT/DATABRIDGE/KEYENTRY, transmit *mixnumber*OK to the install WFL job.

OBJECT/DATABRIDGE/KEYENTRY now runs.

- c When prompted, enter the access code (same as license key) located on your DATABridge host DVD package.
- d After the installation WFL completes, mark *all* of the DATABridge object files as unrestricted by entering the following from either the ODT or from a privileged usercode in MARC:

```
RESTRICT -FILE objectfilename
```

Installation Results

The following files are copied to the usercode you designated when you installed the DMSII Client:

File Name	Description
DATA/DMSIIClient/README	CANDE text file that lists important notices and last minute information about the DMSII Client
DATA/DMSIIClient/SAMPLE/CONTROL	Sample parameter file for the DMSII Client See “Modifying the DMSII Client Parameter File” on page 23 for an example.
OBJECT/DATABRIDGE/DMSIIClient	Object code for the DMSII Client
OBJECT/DATABRIDGE/DMSIIClient/AUTOCONNECT	Object code for the auto connect feature
OBJECT/DATABRIDGE/KEYENTRY	Object code used during installation to insert Attachmate access code (key) information that enables the software license
PATCH/DATABRIDGE/DMSIIClient/SAMPLE/DASDL	Sample patch file to specify DASDL particulars See “Modifying the DMSII Client DASDL File” on page 17 for an example.
SYMBOL/DATABRIDGE/INTERFACE	Source code INCLUDE file for the API (ALGOL file type)
SYMBOL/DATABRIDGE/DMSIIClient/LIB	Library source code used by the DMSII Client when accessing a client database
WFL/DATABRIDGE/INCLUDE/DBTITLE	Work flow that parses the DMSII database title for all other WFLs
WFL/DATABRIDGE/INSTALL	Work flow for installing the DMSII Client

Chapter 2 *Installing, Configuring, and Starting the DMSII Client*

File Name	Description
WFL/DATABRIDGE/ DMSIICLIENT	Work flow for executing the DMSII Client
WFL/DATABRIDGE/ DMSIICLIENT/COMPILEDB	Work flow for compiling the DMSII Client database when using the manual compile option
WFL/DATABRIDGE/ DMSIICLIENT/REORGDB	Work flow for compiling the DMSII Reorganization program for generating the sets for a cloned data set.
WFL/DATABRIDGE/ BACKUPTAILORED	Workflow for backing up tailored DMSII software, DESCRIPTION and DMSUPPORT, with the update level as the last node of the file titles.

Configuring and Starting the DMSII Client

Complete the following steps to configure and start the DMSII Client to clone the DMSII database.

Note: If you set `COMPILE MANUAL` (typically used when the `DASDL` and `DMALGOL` compilers are not available to the DMSII Client software) in the DMSII Client parameter file, there are several manual steps you must complete as documented in steps 6 through 13 below.

- 1 Get the DMSII Client `DASDL` patch file using `CANDE`, as follows:

```
GET PATCH/DATABRIDGE/DMSIICLIENT/SAMPLE/DASDL AS PATCH/  
DATABRIDGE/DMSIICLIENT/clientdbname/DASDL
```

where *clientdbname* is the name of the client database you are creating. It is strongly recommended that the name of the client database be different from the name of the primary database so that there is no confusion as to which database you are using.

- 2 Modify and then save the DMSII Client `DASDL` patch file to reflect settings for your site. See [“Modifying the DMSII Client DASDL File,”](#) beginning on page 17.
- 3 Get the DMSII Client parameter file using `CANDE`, as follows:

```
GET DATA/DMSIICLIENT/SAMPLE/CONTROL AS DATA/DMSIICLIENT/  
clientdbname/CONTROL
```

where *clientdbname* is the name of the client database you are creating.
- 4 Modify and then save the DMSII Client parameter file to reflect settings for your site. See [“Modifying the DMSII Client Parameter File,”](#) beginning on page 23.
- 5 Start the DMSII Client by entering the following command:

```
START WFL/DATABRIDGE/DMSIICLIENT ("clientdbname")
```

where *clientdbname* is the name of the client database you are creating.

The DMSII Client will generate and compile the DASDL for the client database. The message that appears next depends on your setting for the COMPILE parameter in the DMSII Client parameter (step 2).

if	Then
COMPILE AUTO	<p>The DMSII Client displays the following message and then waits for the DMSupport library to compile:</p> <pre>Waiting for DMSupport compilation</pre> <p>After DMSupport is compiled, the client database will be initialized with empty structures and then the DMSII Client will clone the primary database.</p> <p>At this point, you are finished with this procedure. Go to "What to Do Next" on page 17.</p>
COMPILE MANUAL	<p>The DMSII Client displays the following message and then terminates:</p> <pre>Use WFL/DATABRIDGE/DMSIICLIENT/ COMPILEDB to compile <i>clientdbname</i></pre> <p>Continue with step 6.</p>

- 6 Compile the client database by starting the following WFL:

```
WFL/DATABRIDGE/DMSIICLIENT/COMPILEDB ("clientdbname")
```

where *clientdbname* is the name of the client database you are compiling.
- 7 When the COMPILEDB WFL is finished, if the compiled software is on a different pack or usercode than the DMSII Client, copy the following files to the DMSII Client usercode and pack:

```
DESCRIPTION/clientdbname  
DMSUPPORT/clientdbname  
RECONSTRUCT/clientdbname  
OBJECT/DATABRIDGE/DMSIICLIENT/LIB/clientdbname
```
- 8 Create the empty database structure by running the following utility:

```
SYSTEM/DMUTILITY ("DB= clientdbname INITIALIZE =")
```
- 9 Run the DMSII Client to clone the database by entering the following command:

```
START WFL/DATABRIDGE/DMSIIClient ("clientdbname")
```

What to Do Next

The DMSII Client either waits for additional audit information or terminates, depending on the value of the MAXWAIT option in the parameter file. At this point, the client database is ready to use.

If you want to view the status of the DMSII Client, enter the AX STATUS command as described in “[AX STATUS](#)” on page 36.

You can register the DMSII Client for auto connect so that the Server Accessory initiates it when updates are available. To do this, enter the REGISTER command as described in “[Starting the DMSII Client Using an Optional Second Parameter](#)” on page 32.

Modifying the DMSII Client DASDL File

The DMSII Client DASDL file (PATCH/DATABRIDGE/DMSIIClient/clientdbname/DASDL) is the source file for the client database. It provides information on where and how the client database will be created.

Although this is not a typical option, if you want to make the client database unaudited for improved performance and reduced disk storage, you could set the \$ UNAUDITED option to compile the library for an unaudited client database. The cost of this is recloning or reloading the database if a failure occurs on the secondary system.

The DMSII Client DASDL file follows the procedure below.

Note: If you are completing step 2 in “[Configuring and Starting the DMSII Client](#),” use the following information to configure your DMSII Client DASDL file. After you have configured the DMSII Client DASDL file, continue with step 3 on page 15.

Modify the DASDL file settings by completing the following steps:

- 1 Set the FAMILYNAME attribute in the AUDIT TRAIL section.
- 2 For any primary-side sets you want declared on the client side, declare the following somewhere near the top in the DASDL file:

```
$ SET setname1 setname2 setname3 ...
```

- 3 For any primary-side subsets you want declared on the client side, declare one of the following somewhere near the top in the DASDL file:

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```
$ SET ALLSUBSETS
—or—
$ SET subsetname1 subsetname2 subsetname3 ...
```

- 4 Change other parameters and audit trail attributes indicated in the comments of the DASDL file, if desired. If you decide to change any of these parameters and audit trail attributes, refer to your Unisys *DMSII Data and Structure Definition Language (DASDL) Programming Reference* manual for detailed information about the parameters and audit file attributes.

Sample DMSII Client DASDL File

Following is the sample DMSII Client DASDL file (PATCH/DATABRIDGE/DMSIIClient/clientdbname/DASDL) that you must modify by replacing the items in angle brackets with your entry.

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%
%           A Series DATABridge DMSIIClient DASDL Skeleton
%
%   Source:  PATCH/DATABRIDGE/DMSIIClient/SAMPLE/DASDL
%   Object:
%
%   Copyright (C) 2010 Attachmate Corporation
%           All Rights reserved
%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

This is the user-modifiable DASDL skeleton for the DATABridge Client program for DMSII.

Before generating a database with the DMSII Client, you may modify this file with local preferences.

The PARAMETERS and AUDIT TRAIL attributes can be adjusted as desired. The DMSII Client can function with any settings in these sections.

By default, the DMSII Client database will not have any of the sets found in the original database. The generated DASDL, however, does contain the declarations for these sets surrounded by a pair of \$ SET OMIT = ^ <setname> and \$ POP OMIT. The <setname> is the original name of the set minus any hyphens. If you want to include any of these sets in the client database you should put \$ SET <setname> in this file *before* the insertion point, which is marked by "@".

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For example, if you want to include the sets CUSTNAMESET and ORD-BY-DATE in the client database you should put the following lines in this file:

```
$ SET CUSTNAMESET
$ SET ORDBYDATE
```

Important! Save this file as
PATCH/DATABRIDGE/DMSIICLIENT/<clientdb>/DASDL.

Modification history

Version 40.461
Initial version.

Version 41.471
1 Added POPULATIONINCR = 100 to avoid waiting entries messages
about population increases.

Version 42.491
1 Added \$ UNAUDITED for compiling an unaudited database.

Version 50.503
1 Removed the FAMILYNAME option from the DEFAULTS declaration
because the DMSII Client now generates it from the CLIENT
DATABASE option. Similarly, the CONTROL FILE declaration
has been removed because it is now generated.

End History
\$ POP OMIT

```
DEFAULTS
(
%- SECURITYGUARD   = <guardfiletitle>,
CHECKSUM          = TRUE,
DATASET
(
%- SECURITYGUARD   = <guardfiletitle>,
BUFFERS           = 0 + 0 PER RANDOM USER
                  OR 2 PER SERIAL USER,
REBLOCK           = TRUE,
POPULATIONINCR    = 100,
POPULATIONWARN    = 0,
LOCK TO MODIFY DETAILS
)
)
SET
```

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```
(
%- SECURITYGUARD = <guardfiletitle>,
  CHECKSUM      = TRUE
)
);
```

```
%=====
%           Don't change any OPTIONS
%=====
```

OPTIONS

```
(
$ SET OMIT = UNAUDITED

  AUDIT,
  INDEPENDENTTRANS,
  REAPPLYCOMPLETED,

$ POP OMIT % UNAUDITED

  ADDRESSCHECK          % ADDRESSCHECK must be set
);
```

```
%=====
%           Change PARAMETERS as desired for better performance.
%=====
```

PARAMETERS

```
(
$ SET OMIT = UNAUDITED

  SYNCPOINT      = 100 TRANSACTIONS,
  CONTROLPOINT   = 20 SYNCPOINTS,

$ POP OMIT % UNAUDITED

  ALLOWEDCORE    = 500000,
  OVERLAYGOAL    = 5
);
```

```
%=====
%           Change AUDIT TRAIL as desired for better performance.
%=====
```

```
$ SET OMIT = UNAUDITED
```

Chapter 2 Installing, Configuring, and Starting the DMSII Client

```
AUDIT TRAIL
(
%=====
%       Set FAMILYNAME to the pack for the audit files.
%
%- FAMILYNAME      = <auditpack> COPY TO TAPE AND REMOVE,
%=====

AREAS              = 10,
AREASIZE           = 1000 BLOCKS,
BLOCKSIZE          = 4080 WORDS,
UPDATE EOF         = 100 BLOCKS,
CHECKSUM           = TRUE
);

$ POP OMIT % UNAUDITED

%=====
% Audit location data set for keeping track of our position
% in the primary database.
%
%       *DO NOT MODIFY*
%=====

AUDITLOCATION DATASET
(
AL-STRNUM          NUMBER (4) INITIALVALUE 0;
AL-RECTYPE         NUMBER (3) INITIALVALUE 0;
AL-MODE            NUMBER (1) INITIALVALUE 0;
AL-AFN             NUMBER (4) INITIALVALUE 0;
AL-ABSN            REAL (S11) INITIALVALUE 0;
AL-SEG             REAL (S11) INITIALVALUE 0;
AL-INX             REAL (S11) INITIALVALUE 0;
AL-TIME            REAL          INITIALVALUE 0;
AL-HOSTINFO        REAL          INITIALVALUE 0;
),

BLOCKSIZE = 30 RECORDS;

ALSET SET OF AUDITLOCATION
KEY
(
AL-STRNUM,
AL-RECTYPE
```

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```

        )
NO DUPLICATES;

%=====
%       Select predefined sets
%=====

% Put $ SET <setname> here for any desired sets from the
% primary database.

%$ SET CUSTNAMESET

% The following line is the "insertion point" where the
% generated structures will be inserted.

@ Insertion point -- Do NOT delete this line.

%=====
%       Logical databases and physical attributes
%=====

% Put any logical databases or physical
% attributes of specific structures here.

%=====
%                               End DMSII Client DASDL
%=====
```

Modifying the DMSII Client Parameter File

The DMSII Client parameter file (DATA/DMSIICLIENT/*clientdbname*/CONTROL) is a SEQDATA file. It provides information on where and how to locate the Server Accessory SOURCE for the primary database.

Note: If you are completing step 4 in “Configuring and Starting the DMSII Client,” use the following information to configure your DMSII Client parameter file. After you have configured the DMSII Client parameter file, continue with step 5 on page 15.

The following is the sample DMSII Client parameter file that you must modify by replacing the items in angle brackets with your entry.

```

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%
%           A Series DATABridge DMSII Client Parameter File           %
%
%           Source:           DATA/DMSIICLIENT/SAMPLE/CONTROL         %
%
%           Version:         6.1                                       %
%
% Copyright (C) 2010 Attachmate Corporation                           %
%           All Rights reserved                                         %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

% Name of the *** Client *** database.
% The client database files will be created on the
% <dbpack> family under the <usercode> usercode.

CLIENT DATABASE "<usercode><clientdb> ON <dbpack>"

% Client database DMSUPPORT title.
% Default: (<usercode>)DMSUPPORT/<clientdb> ON <dbpack>

% DMSUPPORT "<DMSupporttitle>" % (Optional)

% Client database Reconstruct title.
% Default: (<usercode>)RECONSTRUCT/<clientdb>
%           ON <dbpack>

% RECONSTRUCT "<Reconstructtitle>" % (Optional)

```

Chapter 2 Installing, Configuring, and Starting the DMSII Client

```
% DMSII software titles

DMCONTROL "SYSTEM/DMCONTROL ON DISK"
DMUTILITY "SYSTEM/DMUTILITY ON DISK"
DMALGOL   "SYSTEM/DMALGOL ON DISK"
DASDL     "SYSTEM/DASDL ON DISK"
BUILDREORG "SYSTEM/BUILDREORG ON DISK"
REORGSYM  "DATABASE/REORGSYMBOLIC ON DISK"
PROPERTIES "DATABASE/PROPERTIES ON DISK"

% How to locate the Server Accessory SOURCE ...

SOURCE <sourcename> % SOURCE name in the Server Accessory parameter file
AT <host>           % the Server Accessory's hostname or IP address
VIA TCPIP          % network protocol: TCPIP, HLCN, BNA
PORT <portnumber> % the Server Accessory's port number, e.g. 3000

% example: SOURCE BANKDB AT PRODHOST VIA TCPIP PORT 3000

% When waiting for an audit file ...

RETRY    60           % seconds delay between retries
MAXWAIT  FOREVER     % max total seconds to wait
% (FOREVER means to retry indefinitely;
% DONTWAIT means do not retry at all)

COMPILE AUTO          % automatically compile client database

% COMPILE MANUAL      % user is responsible for compiling
% the client database using
% WFL/DATABRIDGE/DMSIICLIENT/COMPILEDB

% Disable the following data sets ...

% DISABLE dataset1, dataset2, ...
% DISABLE ALL EXCEPT dataset1, dataset2, ...
```

DMSII Client Parameters

Note the following for the format of the DMSII Client parameter file:

- You can list the options in the parameter file in any order.
- You can list multiple options on a single line.
- You can split options across multiple lines.
- There is no termination character.
- There is no continuation character.
- The comment character is the percent sign (%). The comment character can appear anywhere on a line and anything after the comment character is ignored.
- If you name any entry the same as a parameter file keyword, enclose the name in “quotation marks.” For example, if you create a filter named SOURCE (which is also the name of a keyword in the DMSII Client parameter file), enclose SOURCE in “quotation marks” as follows:

```
FILTER "SOURCE"
```

The remainder of this section explains each option in the DMSII Client parameter file.

CLIENT DATABASE

Required. Enter the name you want to use for the client database. It is strongly recommend that the name of the client database be different from the name of the primary database so that there is no confusion as to which database you are using.

If you specify the optional *usercode* and *dbpack*, they apply to the DMSII CONTROL file and the database files, as in this example:

```
CLIENT DATABASE "(DBRIDGE)BANKCLIENTDB ON DBPACK"
```

In this example:

- The generated client database files (CONTROL file, data sets, and sets) will have the DBRIDGE usercode and reside on DBPACK.
- By default, DMSUPPORT will have the DBRIDGE usercode and reside on DBPACK.
- The DESCRIPTION file will be on the database family under the usercode the DMSII Client is running under.

DMSUPPORT **Optional.** If you want the DMSupport library for the client database to have a specific name, enter that name in this parameter. The default support library is as follows:

(dbusercode)DMSUPPORT/clientdbname ON dbpack

RECONSTRUCT **Optional.** If you want the Reconstruct program for the client database to have a specific name, enter that name in this parameter. The default program name is as follows:

(dbusercode)RECONSTRUCT/clientdbname ON dbpack

DMS Software Titles **Optional.** The DMSII Software Titles parameter allows you to specify a different title for a variety of DMSII-related programs. This allows you to use nonstandard names for these programs, in addition to specifying usercodes and pack names, as in the following examples:

```
DMCONTROL  "(500)SYSTEM/DMCONTROL ON SYSPACK"
DMUTILITY  "SYSTEM/500/DMUTILITY ON SYSPACK"
DMALGOL    "*SYSTEM/DMALGOL ON SYSPACK"
DASDL      "SYSTEM/DASDL ON SYSPACK"
BUILDREORG "SYSTEM/BUILDREORG ON SYSPACK"
REORGSYM   "DATABASE/REORGSYMBOLIC ON DBPACK"
PROPERTIES "DATABASE/PROPERTIES ON DBPACK"
```

SOURCE **Required.** The SOURCE parameter is a four-part parameter that enables the DMSII Client to link up with the Server Accessory. The syntax of the SOURCE parameter is as follows:

SOURCE sourcename AT host VIA protocol PORT portnumber

Where	Is
<i>sourcename</i>	The name of the SOURCE option in the Server Accessory parameter file. The SOURCE option in the Server Accessory parameter file is a unique name that is assigned to the database you want to replicate.
<i>host</i>	One of the following for the mainframe where the Server Accessory resides: <ul style="list-style-type: none"> · TCP/IP—The host name or the IP address · BNA—The host name · HLCN—The netaccesspoint <p>Note: The host name can contain multiple nodes separated by periods.</p>

Where	Is
<i>protocol</i>	Your network protocol—TCP/IP, BNA, or HLCN.
<i>portnumber</i>	The Server Accessory port number (using TCP/IP) or name (if using BNA or HLCN).

RETRY **Optional.** The default is 60 seconds. Enter the number of seconds you want the DMSII Client to wait before it retries its available audit check. If more audit is unavailable, the DMSII Client will wait the number of seconds you specify before checking again.

MAXWAIT **Optional.** The default is FOREVER. Enter the maximum number of seconds you want the DMSII Client to wait for more audit to become available. Since the DMSII Client is designed to run continuously, you can use the default of FOREVER to indicate there is no limit to the waiting time. You can also enter DONTWAIT to indicate that the DMSII Client should immediately terminate when no updates are available.

When you enter a value, the DMSII Client will check for more audit every *nn* seconds, where *nn* is the value of the `RETRY` option. If the `MAXWAIT` time expires before more audit becomes available, the DMSII Client terminates. Once the DMSII Client terminates, you must restart it manually, unless you enabled the auto connect feature.

See “[REGISTER](#)” on page 34 for instructions on registering the DMSII Client for auto connect.

COMPILE

Optional. The default is `COMPILE AUTO`. This parameter determines whether or not the DMSII Client will automatically compile the client database and support library when the client database is created or in the event of a reorganization. If the `DASDL` and `DMALGOL` compilers are not available to the DMSII Client software, use the `COMPILE MANUAL` option.

When you run the DMSII Client with the `COMPILE MANUAL` option set, the DMSII Client will generate the client database `DASDL` source and the patch files for the support library and then terminate with the following message:

```
"Use WFL/DATABRIDGE/DMSIIClient/COMPILEDB to compile
  clientdbname"
```

For instructions, see “[When COMPILE Is Set to MANUAL](#)” on page 47.

INSERT CLIENT TIMESTAMP

Optional. This parameter adds a timestamp to each data set record that contains the time the DMSII Client last updated the record.

If you want to use the `INSERT CLIENT TIMESTAMP` parameter, you must add it to the DMSII Client parameter file. By default, it does not appear in the file.

INSERT SERVER TIMESTAMP

Optional. This parameter adds a timestamp to each data set record that contains the time the application on the primary system last updated the record.

If you want to use the `INSERT SERVER TIMESTAMP` parameter, you must add it to the DMSII Client parameter file. By default, it does not appear in the file.

DISABLE

Optional. This parameter allows you to exclude specific data sets from being replicated to the client database. Use this parameter when you want to *exclude* a portion of a database from being replicated.

To exclude a portion of a database, enter the data sets that you want to exclude in this field, separated by commas, as in the following example:

```
DISABLE CUSTOMER, ACCOUNT, EMPLOYEES
```

When the client database is generated, any disabled data sets are omitted from the DASDL. If a data set is disabled after the initial client database is generated it remains in the client database but none of its updates are replicated.

DISABLE ALL
EXCEPT

Optional. This parameter allows you to exclude all data sets *except* the ones listed from being replicated to the client database. Use this parameter when you want to *include* only a portion of a database.

To replicate a portion of a database, enter the data sets that you want to replicate in this field, separated by commas, as in the following example:

```
DISABLE ALL EXCEPT CUSTOMER, ACCOUNT, EMPLOYEES
```

When the client database is generated, any disabled data sets are omitted from the DASDL. If a data set is disabled after the initial client database is generated it remains in the client database but none of its updates are replicated.

Command Reference

3

In This Chapter

This chapter explains the DMSII Client commands. The following sections are included in this chapter:

Starting and Stopping the DMSII Client	32
DMSII Client AX Commands	36

Starting and Stopping the DMSII Client

This section describes how to start and stop the DMSII Client. For normal processing, use the `START WFL/DATABRIDGE/DMSIIClient ("clientdbname")` command. Depending on your processing needs, you might use one of the following optional second parameters. The DMSII Client defaults to the `UPDATE` command if you do not add a second parameter to the `START WFL`.

Starting the DMSII Client Using an Optional Second Parameter

By adding an optional second parameter to the `START WFL/DATABRIDGE/DMSIIClient` command, you can change how the DMSII Client runs. Following are the optional parameters that you can use:

- `UPDATE [datasetlist]`
- `CLONE [datasetlist]`
- `STATUS [datasetlist]`
- `REGISTER port [password]`
- `CLEAN`
- `LOCATION afn absn seg inx`

UPDATE

```
START WFL/DATABRIDGE/DMSIIClient ("clientdbname", "UPDATE  
[datasetlist]")
```

Use this command to process data set record updates. If you specify a list of data sets, only those data sets will be updated.

CLONE

```
START WFL/DATABRIDGE/DMSIIClient ("clientdbname", "CLONE  
[datasetlist]")
```

Use this command to reclone data sets. If you specify a list of data sets, only those data sets will be recloned.

STATUS

```
START WFL/DATABRIDGE/DMSIICLIENT ("clientdbname", "STATUS
[datasetlist"]")
```

Use this command to generate a report showing the data set structure number, name, mode (which can be normal, clone, fixup, purge, or reorg), and audit location. If you specify a list of data sets, only those data sets will appear in the report. The following is an example of status report:

Str#	Name	Mode	AFN	ABSN	Segment	Index	Host info
	(common)	normal	153	6395	1352	10	75C9729CD2FB
1	BANKDB	normal	153	6395	1352	10	75C9729CD2FB
2	MASTER-DS	normal	153	6395	1352	10	75C9729CD2FB
3	ORDERED-DS	normal	153	6395	1352	10	75C9729CD2FB
5	EMB-STANDARD	normal	153	6395	1352	10	75C9729CD2FB
8	RSDATA	normal	153	6395	1352	10	75C9729CD2FB
10	BANK	normal	153	6395	1352	10	75C9729CD2FB
12	BRANCH	normal	153	6395	1352	10	75C9729CD2FB
14	CUSTOMER	normal	153	6395	1352	10	75C9729CD2FB
17	TELLER	normal	153	6395	1352	10	75C9729CD2FB
19	ACCOUNT	normal	153	6395	1352	10	75C9729CD2FB
19	ACCOUNT (1)	normal	153	6395	1352	10	75C9729CD2FB
19	ACCOUNT (2)	normal	153	6395	1352	10	75C9729CD2FB
19	ACCOUNT (3)	normal	153	6395	1352	10	75C9729CD2FB
19	ACCOUNT (4)	normal	153	6395	1352	10	75C9729CD2FB
19	ACCOUNT (5)	normal	153	6395	1352	10	75C9729CD2FB
23	TRIALBALANCES	normal	153	6395	1352	10	75C9729CD2FB
25	ADDRESSES	normal	153	6395	1352	10	75C9729CD2FB
28	DIS-ORDERED	normal	153	6395	1352	10	75C9729CD2FB
32	L1	normal	153	6395	1352	10	75C9729CD2FB
33	L2	normal	153	6395	1352	10	75C9729CD2FB
34	L3	normal	153	6395	1352	10	75C9729CD2FB
43	FUNNY-STUFF	normal	153	6395	1352	10	75C9729CD2FB
47	SHORT-VF	normal	153	6395	1352	10	75C9729CD2FB
47	SHORT-VF (2)	normal	153	6395	1352	10	75C9729CD2FB
47	SHORT-VF (5)	normal	153	6395	1352	10	75C9729CD2FB
50	MERGED	normal	153	6395	1352	10	75C9729CD2FB
50	MERGED (1)	normal	153	6395	1352	10	75C9729CD2FB
50	MERGED (2)	normal	153	6395	1352	10	75C9729CD2FB

REGISTER

```
START WFL/DATABRIDGE/DMSIICLIENT  
  ("clientdbname", "REGISTER port [password]")
```

Use this command to register the DMSII Client to listen to the specified port for auto connect requests, which indicates that additional audit information is available. If additional audit file information is available, the Server Accessory initiates the DMSII Client, which automatically requests updates from the primary database and then updates the client database.

The port number must match the AUTO CONNECT port number specified in the Server Accessory parameter file (refer to the Server Accessory in the *DATABridge Host Administrator's Guide*).

The password must be the password you use to sign on to the usercode containing the DMSII Client software. If you do not supply a password, you *must* enter the following command from MARC or the ODT to modify the registration with the proper password so that the DMSII Client will run under the proper usercode:

```
NA REG MOD PROV DBCLIENTportPROV TASK ATTRIBUTES  
  (VALUE=port; TASKSTRING="clientdbname";  
  USERCODE=usercode/password)
```

The REGISTER command creates a file called DATA/DMSIICLIENT/*clientdbname*/AUTOCONNECT, which contains the NA commands to register it. If you perform the REGISTER command under a privileged usercode, the DMSII Client automatically loads the file and registers it. If you are running under a nonprivileged usercode, enter the following from either the ODT or a privileged usercode in MARC:

```
NA LOAD (usercode) DATA/DMSIICLIENT/clientdbname/  
  AUTOCONNECT ON familyname
```

where *usercode* is the nonprivileged usercode used to run the DMSII Client REGISTER command and *familyname* is the pack where you ran the DMSII Client REGISTER command.

CLEAN

```
START WFL/DATABRIDGE/DMSIICLIENT  
  ("clientdbname", "CLEAN")
```

Use this command to remove the client database and regenerate it from scratch.

LOCATION

```
START WFL/DATABRIDGE/DMSIICLIENT  
  ("clientdbname", "LOCATION afn absn seg inx")
```

Use this command to insert a specific audit location in the DMSII Client database control table. The next time the DMSII Client runs, it will start retrieving updates from this point.

This command is intended for sites that load a clone of the primary database using a method other than the DMSII Client.



Caution: The DMSII Client will not check the validity of the indicated audit location.

Stopping the DMSII Client

In most cases, you do not need to stop the DMSII Client. However, if you do want to stop the DMSII Client, enter the following:

```
mixnumber AX QUIT
```

where *mixnumber* is the mix number of the DMSII Client. The DMSII Client will terminate at the next quiet point.

DMSII Client AX Commands

You can enter the following AX commands anytime the DMSII Client is running.

AX STATUS

To display the current AFN, ABSN, number of successful updates, and errors, enter the following:

```
mixnumber AX STATUS
```

where *mixnumber* is the mix number of the DMSII Client.

The following is an example of what appears when you enter an AX STATUS command:

```
DMSIIClient: AFN=38, ABSN=17877, updates=301, errors=0.
```

AX QUIT

To terminate the DMSII Client at the next quiet point, enter the following command:

```
mixnumber AX QUIT
```

where *mixnumber* is the mix number of the DMSII Client.

The following is an example of what appears when you enter an AX QUIT command:

```
DMSIIClient: Terminating at end of transaction group.  
DMSIIClient: AFN=38, ABSN=17877, updates=0, errors=0.  
DMSIIClient: [0007]: Active audit file 39 is unavailable.
```

To restart the DMSII Client see, [“Starting and Stopping the DMSII Client,”](#) beginning on page 32.

AX HELP

To display the AX commands that you can use with the DMSII Client, enter the following command:

```
mixnumber AX HELP
```

where *mixnumber* is the mix number of the DMSII Client.

The following is an example of what appears when you enter an AX HELP command:

```
DMSIIClient: Valid commands: STATUS, QUIT.
```

Troubleshooting

A

In This Appendix

This appendix contains troubleshooting information. The following sections are included in this appendix:

General Troubleshooting Procedures	38
Troubleshooting Table	40
Error Messages	41

General Troubleshooting Procedures

If you have problems running the DMSII Client, complete the following steps:

- 1 Make sure your system meets the minimum hardware and software requirements necessary to use the product. See [“Installation Requirements”](#) on page 10 for this information.
- 2 If your primary and client databases are on separate mainframes, ensure that the mainframes are communicating, as follows:
 - If you are using BNA or HLCN, try copying a file between the two mainframes.
 - If you are using TCP/IP, try the PING function.
- 3 Is the Server Accessory running on the primary system? Check the mix to make sure. If it is not running, refer to the Server Accessory in the *DATABridge Host Administrator’s Guide* for instructions on how to start it.
- 4 Verify that your entries in the DMSII Client parameter file match your entries in the Server Accessory parameter file. See [“Modifying the DMSII Client Parameter File”](#) on page 23 for information about setting the DMSII Client parameters. Refer to the *DATABridge Host Administrator’s Guide* for instructions on configuring the Server Accessory parameter file.
- 5 Check the status of the DMSII Client. See [“AX STATUS”](#) on page 36 for instructions.
- 6 Resolve any errors that you receive. If you are receiving error messages that you don’t understand, see [“Error Messages,”](#) beginning on page 41 for help resolving these messages.
- 7 If you cannot identify and solve the problem without assistance, contact your product distributor. Call from a location where you have access to the problem mainframe.

- 8** Troubleshoot the problem using information available from Attachmate Technical Support.

<http://www.attachmate.com/en-US/Support/>

This service directly links you to our internal help desk system, 24 hours a day, 7 days a week.

- 9** Contact Attachmate Technical Support:

<http://support.attachmate.com/contact/>

Troubleshooting Table

The following table lists common problems and their solutions:

Problem	Solution
<p>The DMSII Client gets a PORT file I/O error and terminates</p>	<p>Start the Server Accessory. Refer to the <i>DATABridge Host Administrator's Guide</i> for instructions on how to start it.</p> <p>The Server Accessory must be running for the DMSII Client to contact it. If it's not running, the DMSII Client tries until it eventually gets a PORT file I/O error and terminates.</p> <p>Additionally, make sure that the communication transport, such as TCP/IP, is running on both systems.</p>
<p>Any of the following occur:</p> <ul style="list-style-type: none"> · Disk crash on the system where the DMSII Client is installed. · Reorganization of the original database. · Loss of communications between the primary and client database. 	<p>Perform the procedure described in Appendix B, "Database Update and Reorganization," beginning on page 45.</p>
<p>The DMSII Client terminates with the following message:</p> <pre> mixnumber DBDMSIIClient: >>> [4002] Unable to connect to port nnnn at hostname: The OPEN operation failed because an abort was sent by the correspondent endpoint <<< </pre> <p>Note: When this occurs after the initial clone, you do not have to repeat the initial clone.</p>	<p>Check the following:</p> <ul style="list-style-type: none"> · Verify that the Server Accessory is running on the primary system. If not, refer to the <i>DATABridge Host Administrator's Guide</i> for instructions on how to start it. · Verify that the parameter settings in the DMSII Client parameter file match the parameter settings in the Server Accessory parameter file and vice versa. See "Modifying the DMSII Client Parameter File" on page 23 for information about setting the DMSII Client parameters. Refer to the <i>DATABridge Host Administrator's Guide</i> for information about setting the Server Accessory parameters. · If you are using separate mainframes, verify that communication between the mainframes is functional, as follows: <ul style="list-style-type: none"> For BNA or HLCN, try a file copy between the two hosts. For TCP/IP, try the PING function.

Error Messages

The following are error messages that you might receive while using the DMSII Client:

Number	Message	Meaning
4001	N/A	This number is not currently used.
4002	DMSIIClient: Unable to connect to port <i>port#</i> at <i>hostname: errormessage</i>	The DMSII Client was unable to connect to the specified port. The error message text will explain why the error occurred.
4003	DMSIIClient: Unable to read port <i>port#</i> at <i>hostname: errormessage</i>	The DMSII Client was unable to read the specified port. The error message text will explain why the error occurred.
4004	DMSIIClient: Unable to write port <i>port#</i> at <i>hostname: errormessage</i>	The DMSII Client was unable to write to the specified port. The error message text will explain why the error occurred.
4005	DMSIIClient: DASDL database compile failed	The DMSII Client was unable to compile the DASDL file because it contains a syntax error. Correct the syntax error in PATCH/DATABRIDGE/DMSIIClient/ <i>clientdbname</i> /DASDL and then rerun the DMSII Client. See “ Modifying the DMSII Client DASDL File ” on page 17 for information about configuring the DMSII Client DASDL settings.
4006	N/A	This number is not currently used.
4007	DMSIIClient: DBServer protocol level <i>x</i> must be at least <i>y</i>	The DMSII Client requires a certain level of RPC protocol indicated by <i>y</i> . However, the Server Accessory supports RPC protocol levels up to <i>x</i> . Install a newer version of the Server Accessory that supports RPC protocol <i>y</i> or above.
4008	DMSIIClient: Client lib compile failed	There is an error in compiling the DMSII Client library file. Reinstall the DMSII Client software. Do not edit SYMBOL/DATABRIDGE/DMSIIClient/LIB. If the file was not edited and it still causes a syntax error, contact Technical Support.
4009	DMSIIClient: Unable to link to <i>library_name: message</i>	The DMSII Client was unable to connect to the DMSII Client library. <i>message</i> explains why the error occurred.
4010	DMSIIClient: DMS Error: <i>errormessage</i>	A DMSII operation failed. Refer to your Unisys DMSII documentation to resolve this error.
4011	DMSIIClient: DMUtility dataset purge failed	DMUtility was unable to initialize the data set.

Appendix A Troubleshooting

Number	Message	Meaning
4012	DMSIIClient: Update errors: <i>nnn</i>	This is a summary message indicating <i>nnn</i> errors occurred while the DMSII Client was updating the client database. Check the previously displayed messages.
4013–4 015	N/A	These numbers are not currently used.
4016	DMSIIClient: SYSTEMSTATUS error <i>error#</i>	Contact Technical Support.
4017	DMSIIClient: DBServer closed port unexpectedly	There is a problem with the Server Accessory. Refer to the <i>DATABridge Host Administrator's Guide</i> to troubleshoot the problem.
4018	DMSIIClient: XDR error at line <i>line#</i>	An RPC call failed. Contact Technical Support.
4019	DMSIIClient: Missing <i>filename</i>	The DMSII Client DASDL file is missing. Complete step 2 on page 15 and then rerun the DMSII Client.
4020	DMSIIClient: Invalid AX command: <i>invalid_command</i>	There was a syntax error in the AX command you entered. See “DMSII Client AX Commands” on page 36 for valid AX commands.
4021	DMSIIClient: <i>dataset_name</i> not found for DISABLE	An unknown data set was specified in the DISABLE or DISABLE ALL command in the DMSII Client parameter file. Correct the data set name and then rerun the DMSII Client. See “DISABLE” or “DISABLE ALL EXCEPT” on page 29 for more information. Another common cause is when filtering in a tailored support library on the original DMSII database does not pass all of the data sets to the DMSII Client database. To remedy this situation, remove the data set name from the DISABLE command.
4022	DMSIIClient: <i>dataset_name</i> is disabled	This message occurs when one of the data sets you listed in the UPDATE, CLONE, or STATUS second parameter of START WFL/DATABRIDGE/DMSIIClient has been disabled in the DMSII Client parameter file. Either update the “DISABLE” or “DISABLE ALL EXCEPT” parameter in the DMSII Client parameter file or reissue the START WFL command without the offending data set.
4023	DMSIIClient: Expected <i>keyword</i> not <i>token</i>	There is a syntax error in the second parameter of the WFL. Start the DMSII Client WFL with the proper syntax. See “Starting the DMSII Client Using an Optional Second Parameter,” beginning on page 32 for more information.

Number	Message	Meaning
4024	DMSIIClient: Unknown data set: <i>dataset_name</i>	<p>A data set specified in the second parameter of the WFL does not exist in the client database. Start the DMSII Client with valid data sets in the second parameter of the WFL. See “Starting the DMSII Client Using an Optional Second Parameter,” beginning on page 32 for more information.</p> <p>Another common cause is when filtering in a tailored support library on the original DMSII database does not pass all of the datasets to the DMSII Client database. To remedy this situation, remove the name of the data set that is being filtered out.</p>
4025	DMSIIClient: Invalid port number: <i>port#</i>	There is an incorrect number in the PORT command in the DMSII Client parameter file. Correct the error and then rerun the DMSII Client. See “SOURCE” on page 26 for more information.
4026	DMSIIClient: Unrecognized command: <i>errormessage</i>	There is a syntax error in the optional second parameter in the WFL command. Rerun the WFL using a valid second parameter. See “Starting the DMSII Client Using an Optional Second Parameter” on page 32 for valid optional second parameters.
4027	DMSIIClient: Missing insertion point (@) in <i>dasdl_patch_file_name</i>	The at sign (@) was removed from the DMSII Client DASDL file. Remove the DASDL file and start over with step 1 on page 15, re-edit the DASDL file, and then rerun the DMSII Client.
4028	DMSIIClient: Duplicate insertion point (@) in <i>dasdl_patch_file_name</i> lines <i>firstline#</i> and <i>secondline#</i>	There is more than one at sign (@) in the DMSII Client DASDL file. Remove one of the at signs and then rerun the DMSII Client.
4029	DMSIIClient: "Use WFL/DATABRIDGE/DMSIICLIENT/COMPILEDB to compile <i>clientdbname</i> "	The DMSII Client has generated the new DASDL for the client database but the parameter file has the COMPILE MANUAL option. Start the indicated WFL using a usercode having access to the compilers used in the WFL.

Database Update and Reorganization

B

In This Appendix

This appendix contains information on what to do if there is a DASDL update or reorganization of the primary database. There are two ways to compile the client DASDL and the DMSII Client Library, depending on how you configured the COMPILE parameter.

The following sections are included in this appendix:

When COMPILE Is Set to AUTO	46
When COMPILE Is Set to MANUAL	47

When COMPILE Is Set to AUTO

If you set the COMPILE option to AUTO and a reorganization of the primary database occurs, the DMSII Client automatically generates the client database DASDL source and patch files for the DMSII Client support library, initiates several jobs to update the client database, and then displays the following:

```
Waiting for DMSupport compilation
```

After the DMSUPPORT library is compiled, the DMSII Client will compile and run a Reorganization program. The DMSII Client then resumes normal processing.

Note: The DASDL source generated by the DMSIII Client is now named **SOURCE/DATABRIDGE/DMSIICLIENT/DASDL/*databasename*** instead of **SYMBOL/DATABRIDGE/DMSIICLIENT/DASDL/*databasename***.

When COMPILE Is Set to MANUAL

If you set the COMPILE option to MANUAL and a reorganization of the primary database occurs, the DMSII Client automatically does the following:

- Generates the client database DASDL source and patch files for the DMSII Client support library.

Note: The DASDL source generated by the DMSII Client is now named **SOURCE/DATABRIDGE/DMSIIClient/DASDL/databasename** instead of **SYMBOL/DATABRIDGE/DMSIIClient/DASDL/databasename**.

- Terminates with the following message:

```
"Use WFL/DATABRIDGE/DMSIIClient/COMPILEDB to compile
  clientdbname"
```

At this point, you must do the following:

- 1 Have the system administrator who has access to the DASDL and DMALGOL compilers start the following WFL to compile the client database and the DMSII Client support library:

```
START WFL/DATABRIDGE/DMSIIClient/COMPILEDB
  ("clientdbname")
```

- 2 After WFL/DATABRIDGE/DMSIIClient/COMPILEDB is finished, if the compiled software is on a different pack or usercode than the DMSII Client, copy the following files to the DMSII Client usercode and pack:

```
DESCRIPTION/clientdbname
DMSUPPORT/clientdbname
RECONSTRUCT/clientdbname
OBJECT/DATABRIDGE/DMSIIClient/LIB/clientdbname
```

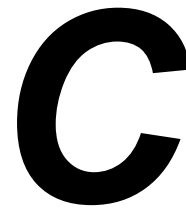
- 3 Start the DMSII Client by entering the following command:

```
START WFL/DATABRIDGE/DMSIIClient ("clientdbname")
```

where *clientdbname* is the name of your client database.

The DMSII Client updates the client database and then resumes normal processing.

Incorporating Existing Databases



In This Appendix

This appendix contains information on how to use the DMSII Client to add its data sets to an existing database. Normally when you run the DMSII Client the first time, it creates the client database. However, if you already have a database and you want to merge the information in that database with replicated information from the primary database, you can modify the DMSII Client to do so.

The DMSII Client will not access or modify any of the pre-existing data sets. Those data sets will be updated by the application software, independently of the DMSII Client. (The DMSII Client will update any data sets that it adds to the database.)

The following section is included in this appendix:

[Incorporating an Existing Database](#) 50

Incorporating an Existing Database

To have the DMSII Client add its data sets to an existing database, complete the following steps:

- 1 Use CANDE or another editor to copy the DASDL source file of the existing database, as follows

```
GET existing_clientdb_source AS PATCH/DATABRIDGE/  
DMSIICLIENT/clientdbname/DASDL
```

- 2 Insert the following line after the OPTIONS parameter in the DASDL file you just created:

```
$ SET INITIALIZENEW AUTOREORG
```

- 3 Declare the following structures somewhere in the DASDL file:

```
AUDITLOCATION DATASET  
(  
  AL-STRNUM      NUMBER (4) INITIALVALUE 0;  
  AL-RECTYPE     NUMBER (3) INITIALVALUE 0;  
  AL-MODE        NUMBER (1) INITIALVALUE 0;  
  AL-AFN         NUMBER (4) INITIALVALUE 0;  
  AL-ABSN        REAL (S11) INITIALVALUE 0;  
  AL-SEG         REAL (S11) INITIALVALUE 0;  
  AL-INX         REAL (S11) INITIALVALUE 0;  
  AL-TIME        REAL          INITIALVALUE 0;  
  AL-HOSTINFO    REAL          INITIALVALUE 0;  
),  
BLOCKSIZE = 30 RECORDS;  
  
ALSET SET OF AUDITLOCATION  
KEY  
  (  
    AL-STRNUM,  
    AL-RECTYPE  
  )  
NO DUPLICATES;
```

- 4 For any primary-side sets you want declared on the client side, declare the following somewhere above the insertion point (see step 6) in the DASDL file:

```
$ SET setname1 setname2 setname3 ...
```


- 5 For any primary-side subsets you want declared on the client side, declare one of the following somewhere above the insertion point (see step 6) in the DASDL file:

```
$ SET ALLSUBSETS  
—or—  
$ SET subsetname1 subsetname2 subsetname3 ...
```

- 6 Type the following line where you want the declarations for the primary-side structures to appear, which must be somewhere after the \$ SET *setname* ..., and \$ SET *subsetname* ... lines, if present.

```
@ Insertion point -- Do NOT delete this line.
```

- 7 Save the DASDL.

What to Do Next

Configure and then start the DMSII Client as described in “[Configuring and Starting the DMSII Client](#),” beginning on page 15. Make sure that you use the existing database name as the client database name.

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