# IBM Informix DataBlade Module Installation and Registration Guide

Version 4.0A March 2003 Part No. CT1V2NA Note:

Before using this information and the product it supports, read the information in the appendix entitled "Notices."

This document contains proprietary information of IBM. It is provided under a license agreement and is protected by copyright law. The information contained in this publication does not include any product warranties, and any statements provided in this manual should not be interpreted as such.

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

© Copyright International Business Machines Corporation 1996, 2003. All rights reserved.

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

## Table of Contents

## **Table of Contents**

### Introduction

	In This Introduction
	About This Guide
	Organization of This Guide
	Types of Users
	Hardware and Software Requirements
	Conventions
	Typographical Conventions
	Icon Conventions
	Additional Resources
	Related Reading
	The IBM Informix Developer Zone
	Online Documentation
	IBM Welcomes Your Comments
Chapter 1	Installing DataBlade Modules
	In This Chapter
	Overview of Installing and Registering a DataBlade Module 1-3
	Installing Your DataBlade Module on UNIX
	Installing Your DataBlade Module on Windows 1-6
Chapter 2	Registering with the BladeManager Graphical User Interface
	In This Chapter
	Prerequisite Tasks
	Managing DataBlade Modules
	Connecting to a Database
	Registering a DataBlade Module
	Upgrading a DataBlade Module
	Unregistering a DataBlade Module

	Managing Client Files
	Installing Client Files
	Uninstalling Client Files
	Viewing Log Files
	Viewing Module Information
Chapter 3	Registering with the BladeManager Command-Line Interface
-	In This Chapter
	Prerequisite Tasks
	Using BladeManager
	Starting and Stopping BladeManager
	Obtaining Help for Commands
	Setting Confirmation
	Executing BladeManager Commands Automatically at Startup. 3-6
	Executing Multiple BladeManager Commands
	Removing BladeManager Objects for Server Reversion 3-7
	Managing DataBlade Modules
	Connection Information
	Registering a DataBlade Module
	Upgrading a DataBlade Module
	Unregistering a DataBlade Module
	Managing Client Files
	Installing Client Files
	Uninstalling Client Files
	Viewing Log Files
	Viewing Module Information
	Command Reference
Appendix A	Troubleshooting Registration Problems

### Appendix B Notices

Index

### Introduction

# Introduction

In This Introduction	•			3
About This Guide				3
Organization of This Guide	•	•	•	3
Types of Users			•	4
Hardware and Software Requirements	•		•	4
Conventions				4
Typographical Conventions	•			5
Icon Conventions				6
Comment Icons				6
Platform Icons	•	•		6
Additional Resources				7
Related Reading				7
The IBM Informix Developer Zone				7
Online Documentation				8
Online Manuals				8
Release Notes and Documentation Notes				8
The DataBlade Developers Kit InfoShelf			. 1	0
BladeManager Graphical User Interface Online Help	•		. 1	0
IBM Welcomes Your Comments			. 1	1

## **In This Introduction**

This introduction provides an overview of the information in this manual and describes the conventions it uses.

## **About This Guide**

This guide explains how to install DataBlade modules and how to use BladeManager to manage them in Informix databases. BladeManager is an application that runs on client computers and requires a connection to IBM Informix Dynamic Server.

## **Organization of This Guide**

The *IBM Informix DataBlade Module Installation and Registration Guide* includes the following chapters:

- Chapter 1, "Installing DataBlade Modules," describes how to install DataBlade modules.
- Chapter 2, "Registering with the BladeManager Graphical User Interface," describes how to use the graphical user interface to BladeManager.
- Chapter 3, "Registering with the BladeManager Command-Line Interface," describes how to use the command-line interface to BladeManager.
- Appendix A, "Troubleshooting Registration Problems," describes potential problems with registering your DataBlade module and offers solutions.

- A Notices appendix describes IBM products, features, and services.
- An index directs you to areas of particular interest.

## **Types of Users**

This manual is for database administrators who install and register DataBlade modules for use in a database. It is also for DataBlade module developers who register DataBlade modules during development.

### Hardware and Software Requirements

BladeManager requires IBM Informix Dynamic Server and the IBM Informix Client Software Developer's Kit. See the BladeManager *Read Me First* sheet for version compatibility and system requirements.

BladeManager is available as both a graphical user interface and a commandline interface.

The BladeManager graphical user interface runs on personal computers with Intel processors running the Windows operating systems.

The BladeManager command-line interface runs on both Windows and UNIX computers.

## Conventions

This section describes the conventions that this manual uses. These conventions make it easier to gather information from this guide.

The following conventions are discussed:

- Typographical conventions
- Icon conventions

## **Typographical Conventions**

This manual uses the following conventions to introduce new terms, illustrate screen displays, describe command syntax, and so forth.

Convention	Meaning
KEYWORD	All primary elements in a programming language statement (keywords) appear in uppercase letters in a serif font.
<i>italics</i> <i>italics</i> <i>italics</i>	Within text, new terms and emphasized words appear in italics. Within syntax and code examples, variable values that you are to specify appear in italics.
boldface boldface	Names of program entities (such as classes, events, and tables), environment variables, file and pathnames, and interface elements (such as icons, menu items, and buttons) appear in boldface.
monospace monospace	Information that the product displays and information that you enter appear in a monospace typeface.
KEYSTROKE	Keys that you are to press appear in uppercase letters in a sans serif font.
•	This symbol indicates the end of product- or platform-specific information.
→	This symbol indicates a menu item. For example, "Choose <b>Tools→Options</b> " means choose the <b>Options</b> item from the <b>Tools</b> menu.



**Tip:** When you are instructed to "enter" characters or to "execute" a command, immediately press RETURN after the entry. When you are instructed to "type" the text or to "press" other keys, no RETURN is required.

### **Icon Conventions**

Throughout the documentation, you will find text identified by different types of icons. This section describes these icons.

### **Comment Icons**

Comment icons identify three types of information, as the following table describes. This information always appears in italics.

lcon	Label	Description
, a	Warning:	Identifies paragraphs that contain vital instructions, cautions, or critical information.
	Important:	Identifies paragraphs that contain significant information about the feature or operation that is being described.
	Tip:	Identifies paragraphs that offer additional details or shortcuts for the functionality that is being described.

### Platform Icons

Platform icons identify paragraphs that contain product-specific or platform-specific information.

lcon	Description
UNIX	Identifies information that is specific to the UNIX environment.
Windows	Identifies information that is specific to the Windows environment.

These icons can apply to a row in a table, one or more paragraphs, or an entire section. A  $\blacklozenge$  symbol indicates the end of the platform-specific information.

## **Additional Resources**

This section lists resources that contain information supplemental to this guide.

## **Related Reading**

For additional information on DataBlade modules, consult the following books:

- Individual user's guides for DataBlade modules
- DataBlade Developer's Kit User's Guide
- IBM Informix User-Defined Routines and Data Types Developer's Guide
- IBM Informix Guide to SQL: Reference
- IBM Informix DataBlade API Programmer's Guide
- IBM Informix DataBlade API Function Reference
- IBM Informix ESQL/C Programmer's Manual
- IBM Informix Dynamic Server Administrator's Guide

See the *DataBlade Module Development Overview* for a topic-to-title and title-to-topic reference.

## The IBM Informix Developer Zone

The IBM Informix Developer Zone Web site contains numerous white papers, code examples, and tips for creating DataBlade modules:

www.ibm.com/software/data/developer/informix

## **Online Documentation**

The online documentation for DataBlade modules and BladeManager includes:

- Online manuals
- Release notes and documentation notes

In addition, for BladeManager on Windows, the online documentation includes:

- Online help
- The DataBlade Developers Kit InfoShelf ◆

### **Online Manuals**

All IBM Informix Dynamic Server manuals are also available at the following URL:

http://www-3.ibm.com/software/data/informix/pubs/library/

### **Release Notes and Documentation Notes**

This section describes the online release and documentation notes for DataBlade modules and BladeManager.

### DataBlade Module Online Notes

The online notes consist of the following documents:

- Release notes. Contain upgrade instructions, registration requirements, compatibility issues, and feature differences from earlier versions of the DataBlade module. These notes also list fixed bugs and known bugs.
- **Documentation notes**. Contain errata and information not included in the printed documentation.
- **Machine notes** (if any). Contain special actions required to configure and use the DataBlade module on your platform.

The online notes are in the **\$INFORMIXDIR/extend**/*datablade.version* directory for the database server installation. •

Windows

UNIX

#### Windows

To view the online notes, double-click the appropriate icon in the **INFORMIX** program group. These files are located in the following directory for the database server installation:

### %INFORMIXDIR%\extend\datablade.version ♦

You can find the filenames of the online notes in the introductory chapter of your DataBlade module user's guide.

### BladeManager Online Notes

The following online release notes and documentation notes supplement the information about BladeManager provided in this manual.

Online File	Purpose
bmgdoc.txt	Describes features not covered in the manuals or modified since publication.
bmgrel.txt	Describes feature differences from earlier versions of IBM Informix products and how these differences might affect current products. This file also contains information about any known problems and their workarounds.

### UNIX

#### Windows

These files are located in the **\$INFORMIXDIR/release** directory under the subdirectory for your locale for your IBM Informix client products installation. ◆

To view the online notes, click the appropriate icon in the **Informix** program group. These files are located in the **%INFORMIXDIR%** release directory under the subdirectory for your locale for your IBM Informix client products installation. •

These files contain vital information about application and performance issues.

### The DataBlade Developers Kit InfoShelf

You can access the DataBlade Developers Kit InfoShelf from the DataBlade Developers Kit. The InfoShelf provides not only this manual but also the following information in HTML format:

- A tutorial for the DataBlade Developers Kit
- A document that describes the example DataBlade modules included with the DataBlade Developers Kit
- A reference library that contains this guide, as well as the following manuals:
  - DataBlade Developer's Kit User's Guide
  - DataBlade Module Development Overview
  - IBM Informix DataBlade API Programmer's Guide
  - D IBM Informix DataBlade API Function Reference
  - □ IBM Informix User-Defined Routines and Data Types Developer's Guide
  - □ IBM Informix Guide to SQL: Reference
  - □ IBM Informix Guide to SQL: Syntax
  - □ IBM Informix Guide to SQL: Tutorial
  - Developer's Guide
  - D IBM Informix JDBC Driver Programmer's Guide
  - D IBM Informix GLS Programmer's Manual
  - □ IBM Informix GLS User's Guide
  - □ IBM Informix ESQL/C Programmer's Manual
- A master index that contains the merged index entries of all the books listed here. The index entries provide links into the HTML versions of the manuals included in the InfoShelf.

### BladeManager Graphical User Interface Online Help

While this manual describes the overall process for registering and unregistering DataBlade modules, the online help associated with the BladeManager graphical user interface provides detailed descriptions for the contents of each tabbed page.

## **IBM Welcomes Your Comments**

To help us with future versions of our manuals, let us know about any corrections or clarifications that you would find useful. Include the following information:

- The name and version of your manual
- Any comments that you have about the manual
- Your name, address, and phone number

Send electronic mail to us at the following address:

docinf@us.ibm.com

This address is reserved for reporting errors and omissions in our documentation. For immediate help with a technical problem, contact Customer Services.

### Chapter

# **Installing DataBlade Modules**

In This Chapter	•	•	•	1-3
Overview of Installing and Registering a DataBlade Module	•		•	1-3
Installing Your DataBlade Module on UNIX	•		•	1-4
Installing Your DataBlade Module on Windows				1-6

## In This Chapter

This chapter provides instructions for completing the tasks described in the following sections:

- "Overview of Installing and Registering a DataBlade Module," next
- "Installing Your DataBlade Module on UNIX" on page 1-4
- "Installing Your DataBlade Module on Windows" on page 1-6

# Overview of Installing and Registering a DataBlade Module

Before you can use a DataBlade module, make sure your database server and any clients are properly configured.

### UNIX

On UNIX, you must have these environment variables set properly: **INFOR-MIXDIR**, **PATH**, **LD\_LIBRARY\_PATH**, **ONCONFIG**, and **INFORMIXSERVER**. For more information, see the *IBM Informix Dynamic Server Administrator's Guide*. ◆

Windows

On Windows, you must have these environment variables set properly: **INFORMIXDIR** and **INFORMIXSERVER**. For more information, see the *IBM Informix Dynamic Server Installation Guide for Microsoft Windows*.

### To use a DataBlade module in your database

**1.** Install the DataBlade module on Dynamic Server.

This process is described later in this chapter.

**2.** Make the DataBlade module available to a database by registering it in that database with BladeManager.

To use a graphical user interface on Windows, see Chapter 2, "Registering with the BladeManager Graphical User Interface."

To use a command-line interface on UNIX or Windows, see Chapter 3, "Registering with the BladeManager Command-Line Interface."

For more information on your DataBlade module, see the user's guide for the module.

## Installing Your DataBlade Module on UNIX

This section describes how to install a DataBlade module on a UNIX computer.

### To install your DataBlade module on a UNIX computer

- **1.** Log in as the **informix** user.
- **2.** Complete the following steps if you received your DataBlade module software on a CD. If you plan to access the product by electronic delivery, follow the instructions at the electronic site and then go to Step 3.
  - **a.** Move to the CD-ROM directory. The software for each platform has its own compressed file; the platform name is included in the file name. The string *x*C*n* in the file name further distinguishes the product. The values for *x* and their meaning are:

F	64 bit
Н	32 bit HP
Т	Windows
U	32 bit

- **b.** Copy the compressed product file to a temporary location, such as the */tmp* directory.
- **c.** Uncompress the file and restore the content with the appropriate command (such as **uncompress**, **zcat**, **tar**, **cpio**, **rpm**, **winzip**).

This command creates a *datablade* directory (or directories) into which it copies the product files, where *datablade* is the DataBlade module project name.

- **3.** Move to the *datablade* directory, where *datablade* is the DataBlade module project name.
- **4.** Run the installation script:

./install

You can select one of the following types of installations:

- **Typical.** Includes all components, any online help, and any examples.
- **Compact.** Includes all components but not online help or examples.
- **Custom.** Allows you to select which components and subcomponents you want to install.

You can use the existing value of the database server root directory (the value of the **INFORMIXDIR** environment variable for the database server installation), or you can let the install script prompt you for the target installation directory.

The DataBlade module software is installed in the directory \$INFORMIXDIR/extend/datablade.version, where datablade is the project name and version is the version number. For example, the IBM Informix Large Object Locator DataBlade module, Version 1.2, is in \$INFORMIXDIR/extend/lld.1.20.UC2.

If the DataBlade module package you are installing has multiple DataBlade modules, each module is unloaded into a separate directory. Each directory has its own installation script. Move to each directory using the **cd** command and run the installation script. The order of installation does not matter.

|--|

*Important:* After you install your DataBlade module, read the online notes. To access the online notes, see "DataBlade Module Online Notes" on page 8.

## **Installing Your DataBlade Module on Windows**

This section describes how to install a DataBlade module on a Windows computer.

### To install your DataBlade module on a Windows computer

- **1.** Log in as a member of the **Informix-Admin** group.
- **2.** Load the DataBlade module CD into your CD-ROM drive. Or, if you plan to access the product by electronic delivery, follow the instructions at the electronic site and then go to Step 3.
- **3.** Start the **Setup** program in one of the following ways:
  - In the Run dialog box, type *d*:setup and click **OK**.
  - At the DOS prompt, type *d*:setup and press ENTER.

The *d* represents the letter of the CD-ROM drive.

An installation options dialog box appears.

- **4.** In the installation options dialog box, select one of the following installation types:
  - **Typical.** Includes all components, any online help, and any examples.
  - **Compact.** Includes all components but not online help or examples.
  - **Custom.** Allows you to select which components and subcomponents you want to install.
- **5.** Choose the database server root directory (the value of the **INFORMIXDIR** environment variable for the database server installation) as your destination directory. If you enter another directory name, a warning appears and you must re-enter the information.
- **6.** In the verification dialog box, make sure the destination path and selected components are correct and click **Next**.

The Setup Complete dialog box appears.

7. Click **Finish** to exit **Setup**.

The DataBlade module software is installed in the directory **%INFORMIXDIR%\extend\***datablade.version*, where *datablade* is the project name and *version* is the version number. For example, the IBM Informix Large Object Locator DataBlade module, Version 1.2, is in **%INFORMIXDIR%\extend\lld.1.20.TC2**.

ſ	
L	

**Important:** After you install your DataBlade module, read the online notes. To access the online notes, see "DataBlade Module Online Notes" on page 8 of the Introduction.

### Chapter

2

# Registering with the BladeManager Graphical User Interface

In This Chapter	2-3
Prerequisite Tasks	2-3
Managing DataBlade Modules	2-4 2-5
Registering a DataBlade Module	2-6
Upgrading a DataBlade Module	2-7
Unregistering a DataBlade Module	2-8
Managing Client Files       Installing Client Files         Uninstalling Client Files       Installing Client Files	2-9 2-10 2-10
Viewing Log Files	2-11
Viewing Module Information	2-12

## In This Chapter

To use a DataBlade module in a database, you must first register the DataBlade module in the database. *Registration* is the process of executing the SQL statements that create the DataBlade module database objects and identify the DataBlade module shared object file or dynamic link library to the database server. You use BladeManager to register DataBlade modules.

Before you can use BladeManager, you must complete the tasks listed in the section "Prerequisite Tasks," next.

This chapter describes how to register DataBlade modules using the BladeManager graphical user interface main application window on Windows computers. The BladeManager application provides four tabbed pages on which you can perform tasks, as described in the following sections:

- "Managing DataBlade Modules" on page 2-4
- "Managing Client Files" on page 2-9
- "Viewing Log Files" on page 2-11
- "Viewing Module Information" on page 2-12

## **Prerequisite Tasks**

This section lists the prerequisite tasks for using BladeManager to register DataBlade modules.

### To prepare to use BladeManager

1. Configure your Informix environment.

You must have these environment variables set properly: **INFOR-MIXDIR** and **INFORMIXSERVER**. For more information, see the *IBM Informix Dynamic Server Installation Guide for Microsoft Windows*.

**2.** Install DataBlade modules.

See Chapter 1, "Installing DataBlade Modules," for more information.

**3.** Install BladeManager.

See the BladeManager *Read Me First* sheet for instructions.

To start BladeManager, select **Start→Programs→Informix→BladeManager** or double-click the **BladeManager** icon in the **Informix** program group. To see a particular page in the application window, click its tab.

## **Managing DataBlade Modules**

To manage DataBlade modules, use the **Databases** page, as shown in Figure 2-1.

🛂 BladeManager		×
Databases Client Files Logs M	fodule Info	
Databases		
	C DataBlade Modules	
e_pc206dl	Registered AddExample:1.0	Available AddExample.1.0 ifxbuiltins.1.1 ifxitree.1.00 IId.1.20.tc2 RowCircleBId
	>> <u>R</u> emove >>	<< A <u>d</u> d <<
	E <u>x</u> it	Apply Help



Managing DataBlade modules consists of tasks described in the following subsections:

- "Connecting to a Database," next
- "Registering a DataBlade Module" on page 2-6
- "Upgrading a DataBlade Module" on page 2-7
- "Unregistering a DataBlade Module" on page 2-8

## **Connecting to a Database**

After you install a DataBlade module, you register it in each database in which you want to use it. To register a DataBlade module, you must first connect to that database.

See the *IBM Informix Dynamic Server Administrator's Guide* for information on the connect and resource permissions you need to connect to the database.



**Tip:** You can be sure you have the right permissions if you run BladeManager as the default user for the database server. You can tell you are the default user if you are not prompted for a user name and password when you attempt to connect to the database. You can use the **Setnet32** utility to specify the user name and password you want to be the default for a particular database server. Make sure you restart BladeManager whenever you change settings in **Setnet32**.

### To connect to a database

- **1.** To see a list of available database servers, in the **Databases** list box on the **Databases** page, click the expander button next to the network and database server icons.
- 2. Click the name of the database to which you want to connect.
- **3.** If the User Login dialog box appears, type a user name and password that have the required permissions for the database.
- 4. Click OK.

After you connect, BladeManager displays the registered and available DataBlade modules for that database.

The first time BladeManager connects to a database, BladeManager prepares the installed DataBlade modules for registration and generates a log file. During the preparation, BladeManager gathers the DataBlade module information that appears on the BladeManager pages. If the preparation of a DataBlade module fails, the DataBlade module does not appear in the **Available** list box. Check the log file for information about preparation failures (see "Viewing Log Files" on page 2-11) and see Appendix A, "Troubleshooting Registration Problems," for possible solutions.

## **Registering a DataBlade Module**

When BladeManager registers a DataBlade module, it executes a set of SQL statements to register each database object in the module. Registration is equivalent to creating database objects individually with the SQL CREATE statement.

You must have resource permissions on the database to register a DataBlade module in it.

### To register a DataBlade module

- 1. On the **Databases** page, select the database in which you want to register a module (see Figure 2-1 on page 2-4).
- 2. In the Available list box, select the module you want to register.
- 3. Click Add.
- 4. Click Apply.

If registration fails, BladeManager returns the database to its prior state. To see the SQL statements that failed, look at the corresponding log file (see "Viewing Log Files" on page 2-11) and see Appendix A, "Troubleshooting Registration Problems," for possible solutions.

Some DataBlade modules depend on one or more *interfaces*. An interface is like a contract between DataBlade modules: the DataBlade module that requires the interface depends on the functionality of the DataBlade module that provides the interface.

When you register a DataBlade module with an interface dependency, Blade-Manager verifies that one of the DataBlade modules that provides that interface is registered in the database. If it is, registration continues. If it is not, BladeManager displays the Modules with Missing Interface dialog box; select one of the DataBlade modules and click **OK**.

|--|

**Important:** You can register DataBlade modules written in Java only in IBM Informix Dynamic Server with J/Foundation database servers. For more information about J/Foundation, see the "J/Foundation Developer's Guide".

|--|

**Important:** BladeManager does not verify the integrity of the DataBlade modules that provide a required interface; BladeManager does not check for the presence of the required database objects.

## **Upgrading a DataBlade Module**

To upgrade a DataBlade module, use BladeManager to register a new version of the module. When you register the new version, BladeManager will automatically unregister the old version.

$\Rightarrow$
---------------

**Important:** You cannot use the following procedure to upgrade or downgrade some versions of DataBlade modules. For instructions on which versions can be upgraded or downgraded, see the release notes for the DataBlade module.

### To upgrade a DataBlade module

- 1. On the **Databases** page, select the database in which you want to upgrade a DataBlade module (see Figure 2-1 on page 2-4).
- 2. In the Available list box, select the module you want to upgrade.
- 3. Click Add.

The **Registered** list box shows the version of the module with the new version in parentheses to indicate that the current version will be upgraded.

4. Click Apply.

After a successful upgrade, the **Registered** list box shows only the new version, along with any other DataBlade modules registered in the database.

If the upgrade fails, BladeManager returns the database to its prior state. To see the SQL statements that failed, look at the corresponding log file (see "Viewing Log Files" on page 2-11) and see Appendix A, "Troubleshooting Registration Problems," for possible solutions.

To downgrade a DataBlade module, use this same procedure to replace the DataBlade module with an earlier version, which appears in the **Available** list box.

## **Unregistering a DataBlade Module**

When BladeManager unregisters a DataBlade module, it removes each object of the module from the database by using SQL DROP statements.

*Important:* BladeManager does not unregister a DataBlade module that provides a required interface for other DataBlade modules or database objects.

### To unregister a DataBlade module

- 1. On the **Databases** page, select the database from which you want to unregister a module (see Figure 2-1 on page 2-4).
- 2. In the **Registered** list box, select the module you want to unregister.
- 3. Click Remove.
- 4. Click Apply.

If the unregistration fails, BladeManager returns the database to its prior state. To see the SQL statements that failed, look at the corresponding log file (see "Viewing Log Files" on page 2-11) and see Appendix A, "Trouble-shooting Registration Problems," for possible solutions.

## **Managing Client Files**

Some DataBlade modules are shipped with files that are required on client computers. These client files can include graphical user interfaces to view data or tools to query or search the database. When you install the DataBlade module, the client files are placed on the database server. You can install and uninstall these client files on the client computer that runs BladeManager.

You can manage client files with the **Client Files** page, as shown in Figure 2-2.

BladeManager Databases Client Files Logs Module Info		×	<b>Figure 2-2</b> Client Files Page
DataBlade modules on server that have client files anycInt comcInt	DataBlade modules with files installed on this client anyclnt		
>>> Install >>	<< <u>R</u> emove <<		
	E <u>x</u> it <u>Apply</u>	Help	

The left list box shows the names of all the DataBlade modules on the current server that include client files that are appropriate for the current client computer. DataBlade modules can contain additional client files for other operating systems. The right list box shows the names of all DataBlade modules that have client files installed on the current client computer.

## **Installing Client Files**

You must install client files individually on each computer on which you require them.

Typically, client files are installed on the client computer in the **\$INFORMIXDIR/extend/***datablade*/client directory for your Informix client products, where *datablade* is the name of the DataBlade module. However, some DataBlade modules might install files in other directories. To install client files, you must have permission to write to the directory in which the client files are installed.

### To install the client files

- 1. On the **Client Files** page, select the DataBlade module that contains the client files you want to install from the left list box.
- 2. Click Install.

A client file installation might require processing after BladeManager has copied the files to your computer. For example, you might have to run an install script or **setup.exe** program before you can use the client files. For instructions, see the release notes for the DataBlade module.

## **Uninstalling Client Files**

You must uninstall client files from each computer from which you want them removed.

To uninstall client files, you must have permission to write to the directory in which the client files reside.

### To remove client files

- 1. On the **Client Files** page, select a DataBlade module in the right list box.
- 2. Click Remove.

A client file uninstallation might require processing before or after BladeManager has removed the files from your computer. For example, you might have to run an uninstall script or program before the client files are completely removed. For instructions, see the release notes for the DataBlade module.

## **Viewing Log Files**

BladeManager generates a log file when you prepare a database for registration and when you register, upgrade, or unregister a DataBlade module. If one of these tasks fails, the log file lists the specific SQL statement that failed. Log files also list whether the failure was expected or unexpected, and they show the error generated by the SQL command.

An example of an expected error is an error issued when a DataBlade module contains an SQL statement to create a table, but that table already exists. When BladeManager receives an unexpected error, it halts the operation and returns the database to its prior state.

Log files are numbered consecutively and contain a time stamp. You should periodically delete log files to free disk space.

View and delete log files on the **Logs** page, as shown in Figure 2-3.

BladeManager	×
Databases Client Files Logs Module Info	
Date         Operation         Status           1998-04-28 15:33:41         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log001.log           1998-05-26 10:42:37         Register AddExample.1.0 0K         - Log in C:\TEMP\blademgr\log002.log           1998-05-26 10:42:37         Register AddExample.1.0 0K         - Log in C:\TEMP\blademgr\log004.log           1998-05-27 14:17:56         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log005.log           1998-05-27 14:20:48         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log005.log           1998-05-27 14:20:59         Unregister AddExample.1.0 0K         - Log in C:\TEMP\blademgr\log008.log           1998-05-27 14:51:34         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log008.log           1998-05-27 14:51:47         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log008.log           1998-05-27 14:51:48         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log008.log           1998-05-27 14:51:47         Register AddExample.1.0 0K         - Log in C:\TEMP\blademgr\log013.log           1998-05-27 15:0:44         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log013.log           1998-05-27 15:0:45         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log013.log           1998-05-27 15:0:45         Prep ifxmngr OK         - Log in C:\TEMP\blademgr\log013.log           1998-05-27 15:2:4:19	<u>D</u> elete Delete Aji
E <u>xit</u> Apply	Help

**Figure 2-3** Logs Page

### To view a log file

- 1. On the Logs page, select the log file you want to view.
- 2. Click View.

### To delete a log file

- 1. On the Logs page, select the log file you want to delete.
- 2. Click Delete.

## **Viewing Module Information**

Each DataBlade module has content and vendor information. After BladeManager prepares the DataBlade modules for a database, you can view the information for all DataBlade modules.

The **Module Info** page displays information on DataBlade modules installed in the database selected on the **Databases** page.
To view module information, on the **Module Info** page, select a DataBlade module in the **DataBlade modules** list box, as shown in Figure 2-4.

BladeManager	<b>Figure 2-4</b> Module Info Page
DataBlade modules AddE xample.1.0 ifxbuiltins.1.1 ifxrttree.1.00 IId.1.20.tc2 The Lob Locator DataBlade IId.1.20.tc2 The Lob Locator DataBlade	
Vendor: Informix Software, INC. Informix Software, Inc. 4100 Bohannon Drive Menlo Park, CA 94025	
Exit Apply Help	

The **Module** box shows the full name and version of the selected module, and it might display a description. The **Vendor** box shows information about the vendor of the DataBlade module.

#### Chapter

# Registering with the BladeManager Command-Line Interface

In This Chapter	3
Prerequisite Tasks	4
Using BladeManager	4
Starting and Stopping BladeManager	5
Obtaining Help for Commands	5
Setting Confirmation	6
Executing BladeManager Commands Automatically at Startup 3-	6
Executing Multiple BladeManager Commands	7
Removing BladeManager Objects for Server Reversion	7
	_
Managing DataBlade Modules	7
Connection Information	8
Connecting to Your Database Server	8
Connecting to Databases	9
Registering a DataBlade Module	0
Upgrading a DataBlade Module	1
Unregistering a DataBlade Module	2
Managing Client Files 3-1	2
Installing Client Files 3-1	2 2
Uninetalling Client Files 3 1	2
	5
Viewing Log Files	4
Viewing Module Information	5
Command Reference 3-1	6

# 3

# In This Chapter

To use a DataBlade module in a database, you must first register the DataBlade module in the database. *Registration* is the process of executing the SQL statements that create the DataBlade module database objects and identify the DataBlade module shared object file or dynamic link library to the database server. You use BladeManager to register DataBlade modules.

Before you can use BladeManager, you must complete the tasks listed in the section "Prerequisite Tasks," next.

This chapter describes how to use the BladeManager command-line interface on UNIX and Windows. This interface provides commands to perform tasks, as described in the following sections:

- "Using BladeManager" on page 3-4
- "Managing DataBlade Modules" on page 3-7
- "Managing Client Files" on page 3-12
- "Viewing Log Files" on page 3-14
- "Viewing Module Information" on page 3-15

The section "Command Reference" on page 3-16 lists the BladeManager command-line interface commands alphabetically.

# **Prerequisite Tasks**

This section lists the prerequisite tasks for using BladeManager to register DataBlade modules.

#### To prepare to use BladeManager

- 1. Configure your Informix environment in one of the following ways:
  - On UNIX, set INFORMIXDIR, PATH, LD\_LIBRARY\_PATH, ONCONFIG, and INFORMIXSERVER. For information about setting these environment variables, see the *IBM Informix Dynamic Server Administrator's Guide*. ◆
  - On Windows, set INFORMIXDIR and INFORMIXSERVER. For information about setting these environment variables, see the IBM Informix Dynamic Server Installation Guide for Microsoft Windows.
- **2.** Install DataBlade modules.

See Chapter 1, "Installing DataBlade Modules," for more information.

**3.** Install BladeManager, if necessary.

BladeManager is included in the installation for your database server on UNIX.  $\blacklozenge$ 

See the BladeManager *Read Me First* sheet for instructions for installing BladeManager on Windows. •

# **Using BladeManager**

This section describes how to complete the tasks described in the following subsections:

- "Starting and Stopping BladeManager," next
- "Obtaining Help for Commands" on page 3-5
- "Setting Confirmation" on page 3-6
- "Executing BladeManager Commands Automatically at Startup" on page 3-6

UNIX

Windows

UNIX

Windows

- "Executing Multiple BladeManager Commands" on page 3-7
- "Removing BladeManager Objects for Server Reversion" on page 3-7

## **Starting and Stopping BladeManager**

To start BladeManager, enter the following command at the UNIX or the MS-DOS command line prompt:

blademgr

Your screen displays a prompt consisting of the value of the current database server (the value of the **INFORMIXSERVER** environment variable when you start BladeManager) and an angle bracket (>). To execute BladeManager commands, enter the command name.

$\Rightarrow$	
---------------	--

**Important:** If BladeManager fails to execute, make sure that Informix environment variables are set to run Informix database utilities. See "Prerequisite Tasks" on page 3-4 for more information.

To exit BladeManager, enter one of the following commands:

- ∎ bye
- exit
- ∎ quit
- an end-of-file key sequence, such as CTRL-D or CTRL-Z

# **Obtaining Help for Commands**

To see a list of BladeManager commands and their syntax, enter one of the following commands:

- help
- ?

# **Setting Confirmation**

If confirmation is on, BladeManager prompts you to confirm the following tasks:

- Register a DataBlade module with the **register** command
- Unregister a DataBlade module with the **unregister** command
- Install a client file with the **add client** command
- Uninstall a client file with the **del client** command

When confirmation is off, BladeManager issues no confirmation prompt when you execute these commands. You might want to turn confirmation off when you use BladeManager in batch operations, so you can send commands to BladeManager from a file.

To turn confirmation on, enter the following command:

```
set confirm on
```

To turn confirmation off, enter the following command:

set confirm off

## Executing BladeManager Commands Automatically at Startup

When BladeManager starts, it searches for the batch file **blademgr.run** in the current directory. If BladeManager finds the file, it executes any commands in it before it displays the prompt that allows you to enter commands. You can edit this file and place commands in it that are automatically executed whenever BladeManager starts.

For example, if you do not want to be prompted for confirmation each time you register a DataBlade module, you can put the **set confirm off** command in **blademgr.run** to turn confirmation off automatically whenever you run BladeManager.

If you include multiple commands in **blademgr.run**, separate each command with a carriage return.

## **Executing Multiple BladeManager Commands**

To execute a series of BladeManager commands using shell redirection, enter the following command:

blademgr < filename.txt</pre>

The *filename.txt* specification in the example represents the name of a text file that contains one or more BladeManager commands, each on a separate line.

## **Removing BladeManager Objects for Server Reversion**

If you want to revert to an earlier version of your database server, you must remove every database object added since the database server and database were upgraded. BladeManager adds its objects to a database whenever you connect to a database with BladeManager. To remove BladeManager objects from the specified database, enter the following command:

unprep database\_name

To successfully revert to a previous version, the following conditions must be true about your database:

- You must have removed any new database objects.
- You must not have altered any existing database objects: for example, by upgrading existing DataBlade modules.

For more information on server reversion, see the *IBM Informix Migration Guide*.

# **Managing DataBlade Modules**

Managing DataBlade modules includes the tasks described in the following subsections:

- "Connection Information," next
- "Registering a DataBlade Module" on page 3-10
- "Upgrading a DataBlade Module" on page 3-11
- "Unregistering a DataBlade Module" on page 3-12

# **Connection Information**

After you install a DataBlade module, you register it in each database in which you want to use it. To register a DataBlade module in a database, you must first connect to that database.

You need connect and resource permissions to connect to the database and register DataBlade modules. See the *IBM Informix Dynamic Server Administrator's Guide* for more information on permissions.

Before BladeManager can connect to a database, your Informix environment must be properly configured on the computer running the database server and on the client computer.

This section describes:

- Connecting to your database server.
- Connecting to a specific database.

#### **Connecting to Your Database Server**

When you start BladeManager, it uses default values for your user name, password, and database server unless you explicitly issue commands to change them.

#### UNIX

The default user name and password are defined as your operating system login and password. The default database server is defined as the value of the **INFORMIXSERVER** environment variable. For information on setting these values, see *IBM Informix Dynamic Server Administrator's Guide*.  $\blacklozenge$ 

#### Windows

The default values for user name, password, and database server are listed in the Setnet32 utility. The default database server is defined as the value of the **INFORMIXSERVER** environment variable. For information on setting these values, see *IBM Informix Client Products Installation Guide for Microsoft Windows Environments*.

You can change your connection to an Informix database server as follows:

• To see a list of available database servers, enter the following command:

show servers

• To connect to a specified database server, enter the following command:

set server server\_name

• To connect as a different user, enter the following command:

set user user\_name

At the password prompt, enter the password. The user name and password are not validated until you attempt to connect to a database.

*Tip:* To avoid possible permissions problems, run BladeManager as the default user for the database server.

#### **Connecting to Databases**

BladeManager commands to register, unregister, list registered, and show available DataBlade modules operate on a specific database.

After you start BladeManager, you can connect to a database, as follows:

To display a list of databases available to a database server, connect to the database server and enter the following command:

show databases

- To connect to a database, execute one of the following commands:
  - list database\_name
  - register module\_name database\_name
  - unregister module\_name database\_name

In the preceding example commands, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. See "Registering a DataBlade Module" on page 3-10 for information on the **list** and **register** commands. See "Unregistering a DataBlade Module" on page 3-12 for information on the **unregister** command.

The first time BladeManager connects to a database, it prepares the installed DataBlade modules for registration and generates a log file. If BladeManager fails to connect to a database or preparation fails, look at the appropriate log file (see "Viewing Log Files" on page 3-14) and see Appendix A, "Trouble-shooting Registration Problems," for possible solutions.



# **Registering a DataBlade Module**

When BladeManager registers a DataBlade module, it executes a set of SQL statements to register each database object in the module. Registration is equivalent to creating database objects individually with the SQL CREATE statement.

You must have resource permissions on the database to register a DataBlade module in it.

After you connect to a database, you can register a DataBlade module, as follows:

To display a list of DataBlade modules installed on the database server that are available for registration, enter the following command:

show modules

Modules that contain client files display the letter *c* after the module name.

To display a list of DataBlade modules registered in the specified database, enter the following command:

list database\_name

• To register a DataBlade module in the specified database, enter the following command:

register module\_name database\_name

In the preceding example command, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number.

If BladeManager is not currently connected to the database specified in the **register** command, it connects to the new database, prepares all available DataBlade modules, and displays a message about the success or failure of the preparation before continuing with registration.

If the registration of a module fails, BladeManager returns the database to its prior state. To see the SQL statements that failed, look at the corresponding log file (see "Viewing Log Files" on page 3-14) and see Appendix A, "Troubleshooting Registration Problems," for possible solutions.

Some DataBlade modules depend on one or more *interfaces*. An interface is like a contract between DataBlade modules: the DataBlade module that requires the interface depends on the functionality of the DataBlade module that provides the interface.

When you register a DataBlade module, BladeManager verifies that one of the DataBlade modules that provides the interface required by your module is already registered in the database. If it is, registration continues. If it is not, BladeManager prompts you to register the DataBlade module providing the interface.

|--|

**Important:** BladeManager does not verify the integrity of the DataBlade modules that provide a required interface. BladeManager does not check for the presence of the required database objects.

|--|--|

**Important:** You can register DataBlade modules written in Java only in IBM Informix Dynamic Server with J/Foundation database servers. For more information about J/Foundation, see the "J/Foundation Developer's Guide."

## **Upgrading a DataBlade Module**

To upgrade a DataBlade module, use BladeManager to register a new version of the module. When you register the new version, BladeManager will automatically unregister the old version.

$\square$
-----------

**Important:** You cannot use the following procedure to upgrade or downgrade some versions of DataBlade modules. For instructions on which versions can be upgraded or downgraded, see the release notes for the DataBlade module.

To upgrade or downgrade a DataBlade module in the specified database, enter the following command:

register module\_name database\_name

In the preceding example command, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. BladeManager warns you that you are upgrading or downgrading a DataBlade module.

If BladeManager is not currently connected to the database specified in the **register** command, it connects to the new database, prepares all available DataBlade modules, and displays a message about the success or failure of the preparation before continuing with registration.

If the upgrade of a module fails, BladeManager returns the database to its prior state. To see the SQL statements that failed, look at the corresponding log file (see "Viewing Log Files" on page 3-14) and see Appendix A, "Troubleshooting Registration Problems," for possible solutions.

## **Unregistering a DataBlade Module**

When BladeManager unregisters a DataBlade module, it removes each element of the DataBlade module from the database using SQL DROP statements.

*Important:* BladeManager does not unregister a DataBlade module that provides a required interface for other DataBlade modules or database objects.

To unregister a DataBlade module in the specified database, enter the following command:

unregister module\_name database\_name

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. If BladeManager is not currently connected to the database specified in the **unregister** command, it connects to the new database, prepares all available DataBlade modules, and displays a message about the success or failure of the preparation before continuing with the **unregister** command.

If the unregistration of a module fails, BladeManager returns the database to its prior state. To see the SQL statements that failed, look at the corresponding log file (see "Viewing Log Files" on page 3-14) and see Appendix A, "Troubleshooting Registration Problems," for possible solutions.

# **Managing Client Files**

Some DataBlade modules are shipped with files that are required on client computers. These client files can include command-line interfaces to view data or tools to query or search the database. When you install the DataBlade module, the client files are placed on the database server along with the elements of the module. You can install and uninstall these client files on the client computer running BladeManager.



To display a list of DataBlade modules installed on the database server to which BladeManager is connected that have client files installed on the computer on which BladeManager is running, enter the following command:

```
show client
```

## **Installing Client Files**

You must install client files individually on every computer on which you want them installed by running BladeManager on each computer.

Typically, client files are installed on the client computer in the **\$INFORMIXDIR/extend/datablade/client** directory for your IBM Informix client products, where *datablade* is the name of the DataBlade module. However, some DataBlade modules might install files in other directories. To install client files, you must have permission to write to the directory in which the client files are installed.

To install client files for a specific DataBlade module, enter the following command:

add client module\_name

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number.

A client file installation might require processing after BladeManager has copied the files to your computer. For example, you might have to run an install script or **setup.exe** program before you can use the client files. For instructions, see the release notes for that DataBlade module.

## **Uninstalling Client Files**

You must uninstall client files individually from each computer from which you want them removed.

You must have permission to write to the directory in which the client files reside.

To uninstall client files for a specific DataBlade module, enter the following command:

del client module\_name

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number.

A client file uninstallation might require processing before or after BladeManager has removed the files from your computer. For example, you might have to run an uninstall script or program before the client files are completely removed. For instructions, see the release notes for that DataBlade module.

# **Viewing Log Files**

BladeManager generates a log file whenever you prepare, register, upgrade, or unregister a DataBlade module. If one of these tasks fails, the log file can point to the particular SQL statement that failed. Log files also list whether the failure was expected or unexpected and show the text of the error generated by the SQL command.

An example of an expected error is an error issued when a DataBlade module contains an SQL statement to create a table, but that table already exists. When BladeManager receives an unexpected error, it halts the operation and returns the database to its prior state.

BladeManager stores log files in one of the following directories:

- /tmp/blademgr/uid, where uid is your UNIX user ID ◆
- %TEMP%\blademgr ♦

Periodically delete files from the log directory to free disk space.

UNIX Windows You can manage log files by performing the following tasks:

• To view the list of log files, enter the following command:

show log

BladeManager lists all available log files. You can see only log files created while BladeManager was running with your user ID.

- To see a particular log file, display the list of log files and enter the log file number.
- To see the most recent log file for the current session, enter the following command:

show last log

■ To delete log files for your user ID, enter the following command:

del logs

BladeManager prompts you to continue with the removal of the log files from the operating system.

# **Viewing Module Information**

Each DataBlade module has content and vendor information.

To display information about a particular DataBlade module, enter the following command:

info module\_name

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number.

If you are not connected to a database, use the following command to establish a connection to the specified database before executing the **info** command:

list database\_name

# **Command Reference**

This section describes the BladeManager commands in detail. The commands are listed in alphabetical order.

# add client

The **add client** command installs the specified DataBlade module's client files on the client computer running BladeManager:

```
add client module_name
```

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. See "Installing Client Files" on page 3-13 for more information.

## bye

The **bye** command closes BladeManager and returns you to the operating system prompt:

bye

# del client

The **del client** command removes the specified DataBlade module's client files from the client computer running BladeManager:

del client module\_name

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. See "Uninstalling Client Files" on page 3-13 for more information.

## del logs

The **del logs** command deletes the **/tmp/blademgr/***uid* directory on UNIX or the **%TEMP%\blademgr** directory on Windows. The directory contains the log files from your BladeManager session:

del logs

See "Viewing Log Files" on page 3-14 for more information.

## exit

The **exit** command closes BladeManager and returns you to the operating system prompt:

exit

# help

The **help** command displays a list of all the BladeManager commands and syntax:

help

## info

The **info** command displays vendor-supplied information about the specified DataBlade module:

info module\_name

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. See "Viewing Module Information" on page 3-15 for more information.

## list

The **list** command displays all the DataBlade modules already registered with the specified database:

list database\_name

See "Managing DataBlade Modules" on page 3-7 for more information.

## quit

The **quit** command closes BladeManager and returns you to the operating system prompt:

quit

## register

The **register** command registers the specified DataBlade module in the specified database:

```
register module_name database_name
```

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. See "Registering a DataBlade Module" on page 3-10 for more information.

## set confirm

The **set confirm** command toggles confirmation for the **register**, **unregister**, **add client**, or **del client** commands on and off:

```
set confirm on | off
```

See "Setting Confirmation" on page 3-6 for more information.

#### set server

The **set server** command connects BladeManager to the specified database server:

```
set server server_name
```

See "Connecting to Your Database Server" on page 3-8 for more information.

#### set user

The set user command sets the user for the current session:

set user user\_name

BladeManager prompts you for a password.

See "Connecting to Your Database Server" on page 3-8 for more information.

#### show client

The **show client** command displays a list of the DataBlade modules on the current database server that have files installed on the current client computer:

show client

## show databases

The **show databases** command displays a list of the databases on the current database server:

show databases

## show last log

The **show last log** command displays the most recent log file for the current session:

show last log

The **show last log** command does not return a log file if you have not executed a command during the current BladeManager session.

## show log

The **show log** command lists the available log files and allows you to view the contents of a specific log file:

show log

After BladeManager lists all the log files that are available for viewing, it prompts you for the number of the particular log file whose contents you want to view.

#### show modules

The **show modules** command displays a list of the DataBlade modules available on the database server:

```
show modules
```

Modules that contain client files display the letter *c* after the module name.

#### show servers

The **show servers** command displays a list of the available servers:

```
show servers
```

#### unprep

The **unprep** command removes BladeManager from the specified database to allow you to revert from one version of your database server to an earlier version:

```
unprep database_name
```

See "Removing BladeManager Objects for Server Reversion" on page 3-7 for more information.

## unregister

The **unregister** command unregisters the specified DataBlade module from the specified database:

```
unregister module_name database_name
```

In the preceding example, *module\_name* represents the name of the DataBlade module directory. These names typically follow the form of the DataBlade module name followed by the version number. See "Unregistering a DataBlade Module" on page 3-12 for more information.

# ?

The **?** (question mark) command displays a list of all the BladeManager commands and syntax:

?

#### Appendix

# Troubleshooting Registration Problems

This appendix describes problems you might experience when registering a DataBlade module and possible solutions to the problems.

# **Connection Problems**

If BladeManager fails to connect to a database or drops a database connection, perform the following tasks before you call Technical Support:

 Check whether BladeManager connects to some databases but not to others.

You might not have sufficient permissions to work on the databases to which you cannot connect.

IBM Informix software can be managed most easily when a single, default user in an environment with full permissions creates databases and registers DataBlade modules. Using a variety of permissions might cause some services to be denied, for security reasons.

- Check whether the operation that fails works correctly if a user with full permissions performs all the steps.
- Check whether BladeManager connects to databases in one GLS locale, but not in others.

If your database and client are not connected in their respective default locales, try setting the **DB\_LOCALE** and **CLIENT\_LOCALE** environment variables to no locale (the default) and reconnecting to the database.

 Check the database server log file for errors. You might have to ask your database administrator for the location of the server log.

 Check whether the \$INFORMIXDIR/extend and \$INFORMIXDIR/extend/ifxmgr directories are deleted. If these directories no longer exist, reinstall your database server.

 Check whether there are symbolic links to the \$INFORMIXDIR/extend and \$INFORMIXDIR/extend/ifxmgr directories. If there are symbolic links, reinstall your database server into a directory without symbolic links.

• Check whether the connection problem is unique to BladeManager:

- Check whether you have resource permissions by trying to create a table. If you cannot create a table, you do not have resource permissions: have your database administrator assign you permissions.
- □ Check whether you can connect to the same database using DB-Access. If you cannot, consult your database administrator. ◆
- Check whether you can connect to the same database using a client tool, such as SQL Editor or Schema Knowledge.

If not, check your settings in **Setnet32** or consult your database administrator. If you can connect with SQL Editor, but not Schema Knowledge, you might have a problem with a high-level IBM Informix API.  $\blacklozenge$ 

If you had recently installed other software when you began experiencing problems with BladeManager, you might have overwritten a DLL required by BladeManager. See if reinstalling BladeManager solves the problem.

If you are still experiencing problems, contact Technical Support.

UNIX

UNIX

Windows

# **Preparation Failure**

When BladeManager first connects to a database, it "prepares" the database for DataBlade module registrations by creating tables and loading data from files on the server. If you receive a preparation failure error when you attempt to connect to a database with BladeManager, complete the following tasks:

- Create a new database and connect to it with BladeManager, using the same user name. If preparation does not fail, you might have a permissions problem in the original database; contact your database administrator.
- Check the BladeManager logs for the preparation log:
  - □ If you do not find a preparation log, check the database server log to see if a thread failed during preparation.
  - Check the preparation log for "unexpected error" entries. You might be able to correct some errors (for example, if the database server ran out of disk space); otherwise, consult your database administrator about the error.
- Check whether the \$INFORMIXDIR/extend and \$INFORMIXDIR/extend/ifxmgr directories are deleted. If these directories no longer exist, reinstall your database server.
- Check whether there are symbolic links to the \$INFORMIXDIR/extend and \$INFORMIXDIR/extend/ifxmgr directories. If there are symbolic links, reinstall your database server into a directory without symbolic links.

#### UNIX

# **Registration Problems**

If BladeManager fails to register, unregister, or upgrade a DataBlade module, perform the following tasks:

- Check that the permissions on the *datablade.bld* file are set to readonly. The *datablade.bld* file is the DataBlade module shared object file located in the *\$INFORMIXDIR/extend/datablade.version* directory.
- Check the log that BladeManager generated for the operation. If the log has an "unexpected error" entry, send the details from the log to the vendor of the DataBlade module.
- Try to register other DataBlade modules: for instance, the DataBlade modules that ship with the database server. If you can register another DataBlade module, your problem is probably specific to the DataBlade module that failed. Read the release notes for that DataBlade module; some modules have special requirements, such as a named sbspace.

Appendix

# Notices

IBM may not offer the products, services, or features discussed in this document in all countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe on any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

> IBM Director of Licensing IBM Corporation North Castle Drive Armonk, NY 10504-1785 U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation Licensing 2-31 Roppongi 3-chome, Minato-ku Tokyo 106-0032, Japan The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation J46A/G4 555 Bailey Avenue San Jose, CA 95141-1003 U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

# **Trademarks**

AIX; DB2; DB2 Universal Database; Distributed Relational Database Architecture; NUMA-Q; OS/2, OS/390, and OS/400; IBM Informix<sup>®</sup>; C-ISAM<sup>®</sup>; Foundation.2000<sup>TM</sup>; IBM Informix<sup>®</sup> 4GL; IBM Informix<sup>®</sup> DataBlade<sup>®</sup> Module; Client SDK<sup>TM</sup>; Cloudscape<sup>TM</sup>; Cloudsync<sup>TM</sup>; IBM Informix<sup>®</sup> Connect; IBM Informix<sup>®</sup> Driver for JDBC; Dynamic Connect<sup>TM</sup>; IBM Informix<sup>®</sup> Dynamic Scalable Architecture<sup>TM</sup> (DSA); IBM Informix<sup>®</sup> Dynamic Server<sup>TM</sup>; IBM Informix<sup>®</sup> Enterprise Gateway Manager (Enterprise Gateway Manager); IBM Informix<sup>®</sup> Extended Parallel Server<sup>TM</sup>; i.Financial Services<sup>TM</sup>; J/Foundation<sup>TM</sup>; MaxConnect<sup>TM</sup>; Object Translator<sup>TM</sup>; Red Brick Decision Server<sup>TM</sup>; IBM Informix<sup>®</sup> SE; IBM Informix<sup>®</sup> SQL; InformiXML<sup>TM</sup>; RedBack<sup>®</sup>; SystemBuilder<sup>TM</sup>; U2<sup>TM</sup>; UniData<sup>®</sup>; UniVerse<sup>®</sup>; wintegrate<sup>®</sup> are trademarks or registered trademarks of International Business Machines Corporation.

Java and all Java-based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the United States and other countries.

Windows, Windows NT, and Excel are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. UNIX is a registered trademark in the United States and other countries licensed exclusively through X/Open Company Limited.

Other company, product, and service names used in this publication may be trademarks or service marks of others.

Index

# Index

#### A

add client command 3-16

#### B

Batch file 3-6 BladeManager command-line interface connecting as a different user with 3-9 connecting to a different server with 3-9 connection problems with A-1 displaying DataBlade module information with 3-15 executing commands at startup for 3-6 executing multiple commands with 3-7 exiting 3-5 failure to execute in 3-5 help command in 3-5 installing 3-4 installing client files with 3-13 interfaces, ensuring availability with 3-11 listing available databases with 3-9 listing available servers with 3-8 listing client files with 3-13 log files for 3-14 managing DataBlade modules with 3-7 to 3-12

preparation of DataBlade modules with 3-9 prerequisite tasks for using 3-4 registering DataBlade modules with 3-10 removing for server reversion 3-7 setting confirmation with 3-6 starting 3-5 uninstalling client files with 3-13 unregistering DataBlade modules with 3-12 upgrading DataBlade modules with 3-11 BladeManager GUI Client Files page 2-9 connection problems A-1 Databases page 2-4 default user for 2-5 displaying DataBlade module information with 2-12 installing 2-4 installing client files with 2-10 interfaces, ensuring availability with 2-6 log files for 2-11 Logs page 2-11 managing DataBlade modules with 2-4 to 2-8 Module Info page 2-13 preparing DataBlade modules with 2-6 prerequisite tasks for 2-3 registering DataBlade modules with 2-6 starting 2-4 uninstalling client files with 2-10

unregistering DataBlade modules with 2-8 upgrading DataBlade modules with 2-7 blademgr.run file 3-6 Boldface type Intro-5 bye command 3-16

#### C

Client files additional processing if from the command line 3-13 additional processing if with the GUI 2-10 directory installed in 2-10, 3-13 installing from the command line 3-13 installing with the GUI 2-10 listing from the command line 3-13 loading from the command line 3-12 loading with the GUI 2-9 uninstalling from the command line 3-13 uninstalling with the GUI 2-10 Client Files page 2-9 Command-line interface to BladeManager 3-3 to 3-15 Commands add client 3-16 bye 3-16 del client 3-16 del logs 3-17 executing at startup from the command line 3-6 executing multiple from the command-line interface 3-7 exit 3-17 help 3-17 info 3-17 list 3-17 quit 3-18 register 3-18 set confirm 3-18 set user 3-19 show client 3-19

show last log 3-19 show log 3-19 show modules 3-20 show servers 3-20 unprep 3-20 unregister 3-20 ? 3-21 Comment icons Intro-6 Configuring your server environment 2-3 Confirmation, turning on and off 3-6 Connect permissions 2-5 Connecting as a different user 3-9 problems with A-1 to a database server from the command line 3-8 to a database with the GUI 2-5 to a database, from the command line 3-8, 3-9 to a different server 3-9 Contact information Intro-11 Conventions Intro-4

#### D

Database server configuring 2-3 connecting to a different from the command line 3-9 connecting to as a different user from the command line 3-9 connecting to from the command line 3-8 default 3-8 listing from the command line 3-8 reverting to an earlier version 3-7 Databases connecting to from the command line 3-8, 3-9 connecting to with the GUI 2-5 listing from the command line 3-9 removing BladeManager objects from 3-7 Databases page 2-4 DataBlade Developers Kit InfoShelf, about Intro-10

DataBlade modules directory for on UNIX 1-5 directory for on Windows 1-7 information on, displaying 2-12, 3-15 installing on UNIX 1-4 installing on Windows 1-6 interfaces for 2-6, 3-11 managing from the command line 3-7 to 3-12 managing with the GUI 2-4 to 2-8 preparing from the command line 3-9 preparing with the GUI 2-6 registering from the command line 3-10 registering with the GUI 2-6 unregistering from the command line 3-12 unregistering with the GUI 2-8 upgrading from the command line 3-11 upgrading with the GUI 2-7 Default user name 2-5, 3-8 del client command 3-16 del logs command 3-17 Deleting log files from the command line 3-15 with the GUI 2-12 Directories for client files 2-10, 3-13 for DataBlade modules on **UNIX 1-5** for DataBlade modules on Windows 1-7 for log files 3-14 Displaying available databases from the command line 3-9 available servers from the command line 3-8 lastest log file from the command line 3-15 Documentation DataBlade Developers Kit InfoShelf Intro-10 documentation notes Intro-8 **IBM Informix Developer** Network Intro-7

related reading Intro-7 release notes Intro-8 Documentation notes Intro-8 Downgrading DataBlade modules. *See* Upgrading DataBlade modules.

#### E

Environment variables Intro-5 Errors viewing with the BladeManager command-line interface 3-14 viewing with the BladeManager GUI 2-11 exit command 3-17 Exiting BladeManager commandline interface 3-5 Expected errors 2-11, 3-14

#### G

Graphical user interface to BladeManager 2-3 to 2-13

#### H

Hardware requirements Intro-4 help command 3-17

#### I

Icons, comment and platform Intro-6 Important paragraphs, icon for Intro-6 info command 3-17 Informix-Admin group 1-6 Installation script for DataBlade modules on UNIX 1-5 Installing BladeManager 2-4, 3-4 client files from the command line 3-13 client files with the GUI 2-10 DataBlade modules on UNIX 1-4 DataBlade modules on Windows 1-6 Interfaces for DataBlade modules 2-6, 3-11

#### L

list command 3-17 Log files defined 2-11, 3-14 deleting from the command line 3-15 displaying lastest from the command line 3-15 verifying registration from the command line 3-10 verifying registration with the GUI 2-6 verifying unregistration from the command line 3-12 verifying unregistration with from the GUI 2-8 verifying upgrades from the command line 3-12 verifying upgrades with the GUI 2-8 Logs page 2-11

#### Μ

Managing DataBlade modules with the BladeManager command-line interface 3-7 to 3-12 with the BladeManager graphical user interface 2-4 to 2-8 Module Info page 2-13

#### 0

On-line help Intro-10

#### Ρ

Preparation during registration from the command line 3-9 during registration with the GUI 2-6 problems with A-3

#### Q

quit command 3-18

#### R

Redirection, sending commands to BladeManager 3-7 register command 3-18 Registering DataBlade modules log file for 2-6, 3-10 preparation for 2-6, 3-9 problems with A-4 with the BladeManager command-line interface 3-10 with the BladeManager graphical user interface 2-6 Release notes Intro-8 Removing BladeManager objects from a database 3-7 Requirements Intro-4 Resource permissions 2-5 Reverting to an earlier server version 3-7

#### S

set confirm command 3-18 set user command 3-19 Setup program for DataBlade modules on Windows 1-6 show client command 3-19 show log command 3-19 show modules command 3-20 show servers command 3-20 Software requirements Intro-4 SQL statement failures in log files 2-11, 3-14 Starting BladeManager command-line interface 3-5 BladeManager GUI 2-4 Startup file for BladeManager command-line interface 3-6

#### T

Tip icons Intro-6 Troubleshooting BladeManager A-1 to A-4

#### U

Unexpected errors 2-11, 3-14 Uninstalling client files from the command line 3-13 client files with the GUI 2-10 UNIX BladeManager command-line interface for 3-3 to 3-21 default user name 3-8 installing DataBlade modules on 1-4 unprep command 3-20 unregister command 3-20 Unregistering DataBlade modules log file for the command-line utility 3-12 log file for the GUI utility 2-8 problems with A-4 with the BladeManager command line 3-12 with the BladeManager GUI 2-8 Upgrading DataBlade modules from the command line 3-11 log file for 2-8, 3-12 problems with A-4 with the GUI 2-7 User name default for UNIX 3-8 default for Windows 3-8 setting from the command line 3-9

#### V

Vendor information, displaying 2-12, 3-15

#### W

Warning icons Intro-6 Windows BladeManager command-line interface for 3-3 to 3-21 BladeManager GUI for 2-3 to 2-13 default user name in 3-8 Informix-Admin group in 1-6 installing DataBlade modules on 1-6

#### Symbols

? command 3-21

4 IBM Informix DataBlade Module Installation and Registration Guide