

BEALiquid Data for WebLogic™

Installation and Migration

Version 1.1 Document Date: April 2003

Revised: April 2003 Part Number: 886-002004-001

Copyright

Copyright © 2003 BEA Systems, Inc. All Rights Reserved.

Restricted Rights Legend

This software and documentation is subject to and made available only pursuant to the terms of the BEA Systems License Agreement and may be used or copied only in accordance with the terms of that agreement. It is against the law to copy the software except as specifically allowed in the agreement. This document may not, in whole or in part, be copied, photocopied, reproduced, translated, or reduced to any electronic medium or machine readable form without prior consent, in writing, from BEA Systems, Inc.

Use, duplication or disclosure by the U.S. Government is subject to restrictions set forth in the BEA Systems License Agreement and in subparagraph (c)(1) of the Commercial Computer Software-Restricted Rights Clause at FAR 52.227-19; subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013, subparagraph (d) of the Commercial Computer Software-Licensing clause at NASA FAR supplement 16-52.227-86; or their equivalent.

Information in this document is subject to change without notice and does not represent a commitment on the part of BEA Systems. THE SOFTWARE AND DOCUMENTATION ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FURTHER, BEA Systems DOES NOT WARRANT, GUARANTEE, OR MAKE ANY REPRESENTATIONS REGARDING THE USE, OR THE RESULTS OF THE USE, OF THE SOFTWARE OR WRITTEN MATERIAL IN TERMS OF CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE.

Trademarks or Service Marks

BEA, Jolt, Tuxedo, and WebLogic are registered trademarks of BEA Systems, Inc. BEA Builder, BEA Campaign Manager for WebLogic, BEA eLink, BEA Liquid Data for WebLogic, BEA Manager, BEA WebLogic Commerce Server, BEA WebLogic Enterprise, BEA WebLogic Portal, BEA WebLogic Server, BEA WebLogic Workshop and How Business Becomes E-Business are trademarks of BEA Systems. Inc.

All other trademarks are the property of their respective companies.

Contents

About	This Document	
	What You Need to Know	vii
	e-docs Web Site	vii
	How to Print the Document	vii
	Related Information	vii
	Contact Us!	vii
	Documentation Conventions	i
1. Pr	reparing to Install Liquid Data	
	Supported Platforms and Databases	1-2
	Accessing Information from Enterprise Information Systems or Custom Applications	1-
	Internationalization Support	1-
	Installation Prerequisites	1-
	Server Installation Prerequisites	1-6
	WebLogic Platform 7.0 SP2	1-6
	Application Integration for Application Views Data Sources	1-6
	Memory, JDK, System Requirements, and Other Prerequisites	1-
	Server Performance Considerations	1-8
	Client Installation Prerequisites	1-8
	Required Order of Installation Tasks	1-9
	About Licensing for Liquid Data	1-9
	What Gets Installed.	1-9

	Preconfigured Samples Domain	1-9
	Considerations for Adding Liquid Data to a WebLogic Server Domain	1-10
2.	Installing Liquid Data Using GUI Mode	
	Before You Install	2-2
	Starting the Installer on a Windows Platform	2-2
	Starting the Installer on a UNIX Platform	2-2
	Installing Liquid Data in GUI Mode	2-3
	Next Steps	2-7
3.	Installing Liquid Data Using Console or Silent Mode	
Ο.	Before You Install	9_9
	Using Console Mode to Install Liquid Data.	
	Using Silent Mode to Install Liquid Data	
	Notes About Silent Mode	
	Using Silent Mode on a Windows System	
	Using Silent Mode on a UNIX System	
	Installer Properties File	
	Next Steps.	
Λ	Post-Installation Tasks	
т.	Verify the Installation by Running the Samples and Starting Data View Builder	4.9
	Set Up and Run the Samples	
	Start Data View Builder and Connect to the Samples Server	
	For Client-Only Installations Modify Data View Builder Start Script	
	Ensure that weblogic.jar is Available on Client System	
	Modify Data View Builder Start Script for weblogic.jar	
	Verify Client is Using Same Version of JDK as Server	
	Work Through the Huick Start Stanc	1 6

	Start Developing Your Own Data Integration Solution4-7
	Liquid Data Windows Shortcuts and UNIX Paths
	Uninstalling Liquid Data4-8
5.	Migrating from Liquid Data 1.0 to 1.1
•	Platform Installation and Configuration
	Liquid Data 1.1 Installation and Deployment
	Liquid Data 1.1 Installation
	Liquid Data 1.1 Deployment
	Liquid Data Migration Steps
	Step 1: Export Liquid Data 1.0 Data Sources
	Prerequisites
	Actions Required5-4
	Step 2: Copy the 1.0 Liquid Data Repository to 1.1
	Prerequisites
	Actions Required5-8
	Step 3: Re-create JDBC Connections and JDBC Data Sources
	Prerequisites
	•
	Actions Required
	Step 4: Migrate Liquid Data-related Project Files, Applications, Custom Functions, and Wel
	Services Not Generated by Liquid Data
	Prerequisites
	Actions Required5-7
	Step 5: Migrating Existing Liquid Data-generated Web Services
	Prerequisites
	Actions Required5-8
	Syntax
	Description

Step 6: Import Liquid Data 1.0 Data Sources	5-6
Prerequisites	5-6
Actions Required	5-6
Step 7: Migrate 1.0 Stored Queries and Data Views	s
Prerequisites	
Actions Required	
Syntax	
Description	
Step 8: Test Your Migration Under Liquid Data 1.1	

Index

About This Document

This document explains how to install BEA Liquid Data for WebLogicTM and how to perform a quick test to verify that the software is properly installed.

This document covers the following topics:

- Chapter 1, "Preparing to Install Liquid Data," provides information about supported platforms
 and adapters, installation prerequisites (system software and hardware requirements),
 licensing, and summarizes the software and components that make up a full Liquid Data
 installation.
- Chapter 2, "Installing Liquid Data Using GUI Mode," explains how to install Liquid Data using the GUI mode install process on Windows or UNIX systems. Also provides information about supported databases for AI configuration, and preconfigured domains.
- Chapter 3, "Installing Liquid Data Using Console or Silent Mode," explains how to install Liquid Data using the command-line *console* or *silent mode* install process.
- Chapter 4, "Post-Installation Tasks," explains how to run a quick test to ensure that you have a complete and working Liquid Data installation, and points you to the Liquid Data samples.
- Chapter 5, "Migrating from Liquid Data 1.0 to 1.1," Migrating from Liquid Data 1.0 to 1.1, provides instructions for migrating previously created metadata from Liquid Data 1.0 to Liquid Data 1.1. Project file migration is automatic.

What You Need to Know

This document is intended for system administrators or others who want to install and set up Liquid Data.

e-docs Web Site

BEA product documentation is available on the BEA corporate Web site. From the BEA Home page, click on Product Documentation or go directly to the "e-docs" Product Documentation page at http://e-docs.bea.com.

How to Print the Document

You can print a copy of this document from a Web browser, one file at a time, by using the File—>Print option on your Web browser.

A PDF version of this document is available on the Liquid Data documentation Home page on the e-docs Web site (and also on the documentation CD). You can open the PDF in Adobe Acrobat Reader and print the entire document (or a portion of it) in book format. To access the PDF files, open the Liquid Data documentation Home page, click the PDF files button and select the document you want to print.

If you do not have the Adobe Acrobat Reader, you can get it for free from the Adobe Web site at http://www.adobe.com/.

Related Information

The following documents contain information that is useful to refer to after installing BEA Liquid Data:

- Liquid Data Product Overview (http://edocs.bea.com/LiquidData/docs10/Idiuser/index.htm)
- BEA WebLogic Server Administration Guide (http://edocs.bea.com/wls/docs70/adminguide/index.html)

Contact Us!

Your feedback on the BEA Liquid Data documentation is important to us. Send us e-mail at **docsupport@bea.com** if you have questions or comments. Your comments will be reviewed directly by the BEA professionals who create and update the Liquid Data documentation.

In your e-mail message, please indicate that you are using the documentation for the BEA Liquid Data for WebLogic 1.0 release.

If you have any questions about this version of Liquid Data, or if you have problems installing and running Liquid Data, contact BEA Customer Support through BEA WebSupport at **www.bea.com**. You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the product you are using
- A description of the problem and the content of pertinent error messages

Documentation Conventions

The following documentation conventions are used throughout this document.

Convention	Item
boldface text	Indicates terms defined in the glossary.
Ctrl+Tab	Indicates that you must press two or more keys simultaneously.
italics	Indicates emphasis or book titles.

Convention	Item
monospace text	Indicates code samples, commands and their options, data structures and their members, data types, directories, and file names and their extensions. Monospace text also indicates text that you must enter from the keyboard.
	Examples:
	#include <iostream.h> void main () the pointer psz</iostream.h>
	chmod u+w *
	\tux\data\ap
	.doc
	tux.doc
	BITMAP
	float
monospace	Identifies significant words in code.
boldface text	Example:
CEAC	<pre>void commit ()</pre>
monospace	Identifies variables in code.
italic text	Example:
CEAC	String expr
UPPERCASE	Indicates device names, environment variables, and logical operators.
TEXT	Examples:
	LPT1
	SIGNON
	OR
{ }	Indicates a set of choices in a syntax line. The braces themselves should never be typed.
[]	Indicates optional items in a syntax line. The brackets themselves should never be typed.
	Example:
	<pre>buildobjclient [-v] [-o name] [-f file-list]</pre>
	Separates mutually exclusive choices in a syntax line. The symbol itself should never be typed.

Convention	Item			
	Indicates one of the following in a command line:			
	That an argument can be repeated several times in a command line			
	 That the statement omits additional optional arguments 			
	• That you can enter additional parameters, values, or other information			
	The ellipsis itself should never be typed.			
	Example:			
	<pre>buildobjclient [-v] [-o name] [-f file-list]</pre>			
	Indicates the omission of items from a code example or from a syntax line. The vertical ellipsis itself should never be typed.			
•				

About This Document

Preparing to Install Liquid Data

Note: If you are upgrading from Liquid Data 1.0 to 1.1, please review "Migrating from Liquid Data 1.0 to 1.1" prior to installing Liquid Data 1.1.

Before you install the BEA Liquid Data for WebLogicTM software, make sure your system meets the requirements for it. This section provides information about supported platforms, system hardware and software requirements, how to install all needed software in the proper order, how to get up-to-date product licenses, and an overview of what gets installed.

The following sections are included here:

- Supported Platforms and Databases
- Accessing Information from Enterprise Information Systems or Custom Applications
- Internationalization Support
- Installation Prerequisites
 - Server Installation Prerequisites
 - Client Installation Prerequisites
- Required Order of Installation Tasks
- About Licensing for Liquid Data
- What Gets Installed
 - Preconfigured Samples Domain
- Considerations for Adding Liquid Data to a WebLogic Server Domain

Supported Platforms and Databases

For the latest information about platform support, see also the Liquid Data *Release Notes*.

Note: Support for HP UX, IBM AIX, and SuSE Linux for IBM is new in BEA Liquid Data for WebLogic version 1.0.1.

Table 1-1 Supported Platforms and Databases for Liquid Data

Operating System and	JDK Support	Hardware and Software	Database Support For more information, see Supported Databases and Drivers in the WebLogic Platform documentation.	
Version		Requirements		
Microsoft Windows 2000 Professional Edition with Service Pack 2 or later	• JDK 1.3.1_06 ¹	 Intel Pentium II or later 400 MHz or faster 512 MB RAM recommended TCP/IP network interface 	 Oracle 8.1.7 Oracle 9i Release 2 PointBase 4.2² Sybase Adaptive Server 12.5 DB2 7.2 SQL Server 2000 SQL Server 7 SP3 	
Microsoft Windows 2000 Advanced Server with Service Pack 2 or later	• JDK 1.3.1_06 ¹	 Intel Pentium II or later 400 MHz or faster 512 MB RAM recommended TCP/IP network interface 	 Oracle 8.1.7 Oracle 9i Release 2 PointBase 4.2² Sybase Adaptive Server 12.5 DB2 7.2 SQL Server 2000 SQL Server 7 SP3 	

Table 1-1 Supported Platforms and Databases for Liquid Data (Continued)

Operating System and Version	JDK Support	Hardware and Software Requirements	Database Support For more information, see Supported Databases and Drivers in the WebLogic Platform documentation.
Microsoft Windows NT (Server) 4.0 with Service Pack 6 or later	• JDK 1.3.1_06 ¹	 Intel Pentium II or later 400 MHz or faster 512 MB RAM recommended TCP/IP network interface 	 Oracle 8.1.7 Oracle 9i Release 2 PointBase 4.2² Sybase Adaptive Server 12.5 DB2 7.2 SQL Server 2000 SQL Server 7 SP3
 Sun Solaris 7³ Sun Solaris 8³ 	• JDK1.3.1_03 ¹	 UltraSparc 5 or later Sparc 168 MHz or faster 512 MB RAM recommended TCP/IP network interface 	 Oracle 8.1.7 Oracle 9i Release 2 PointBase 4.2²
 HP-UX 11.0 HP-UX 11i⁴ 	 JDK 1.3.1.05⁵ JDK 1.3.1.06 	 HP 9000 PA RISC at 100 MHz or higher 512 MB RAM recommended TCP/IP network interface 	 Oracle 8.1.7 Oracle 9i Release 2 PointBase 4.2²

Table 1-1 Supported Platforms and Databases for Liquid Data (Continued)

Operating System and	JDK Support	Hardware and Software	Database Support For more information, see Supported Databases and Drivers in the WebLogic Platform documentation.	
Version		Requirements		
• IBM AIX Version 4.3.3 • IBM AIX 5L Version 5.1 ML1	JDK 1.3.1 32-bit PTF 1 (IY30887)	 pSeries: PowerPC, POWER3 Minimum processor speed: —PowerPC: 200 MHz —POWER3: 450 MHz 280 MB free disk space 512 MB RAM minimum TCP/IP network interface 	 DB2 7.2 Oracle 8.1.7 Oracle 9.i Release 2 PointBase 4.2² 	
SuSE Linux for IBM zSeries/S390 ⁶ , ⁷ Also required: SuSE Linux Enterprise Server 7 for S/390 updated to Kernel 2.4.7 (dated 05/21/02 or later)	JDK 1.3.1 Service Refresh 2 Special Build (APAR PQ63617)	 IBM S/390 G5 or later 180 MB free disk space 1 GB RAM minimum TCP/IP network interface 	 Oracle 9i Release 1 (Thin Driver) Oracle 9i Release 2 (Thin Driver) DB2 7.2 	

- 1. The Sun JDK is bundled with BEA WebLogic Platform and is installed, automatically, under the BEA Home directory.
- 2. PointBase is a pure-Java relational database management system that BEA includes with WebLogic Platform to allow you to run code samples. It is provided for development use only. A special PointBase production license must be obtained for use in a production environment.
- 3. If you are planning to use the JDK $1.3.1_03$ with the Solaris operating system, you must install the latest JDK $1.3.1_03$ patches. For additional information, see:

http://java.sun.com/j2se/1.3/install-solaris-patches.html

- 4. Before you can run the JVM on this platform, you must first install two patches provided by HP: GOLDAPPS11i and HWEnable11i.
- 5. The name of this JDK is HP-UX SDK 1.3.1.05. It has been labeled 1.3.1.03, however, by the authors of the WebLogic Platform HP-UX installer.

6. JavaTM 2 Runtime Environment Standard Edition (build 1.3.1) Classic VM (build 1.3.1, J2RE 1.3.1 IBM build cx390131-20020622 (JIT enabled: jitc)). For download instructions, see "DownLoad Instructions for IBM JVM Build APAR PQ63617" at the following URL:

http://e-docs.bea.com/wls/certifications/certifications/suse_linux_s390.html

7. The SuSE Linux version of Liquid Data is certified on WebLogic Server only, not on all components of the WebLogic Platform.

Accessing Information from Enterprise Information Systems or Custom Applications

Liquid Data supports use of several Enterprise Information Systems (EIS) and custom applications as *Application View* data sources. Liquid Data interoperates with the BEA WebLogic Integration Application Integration (AI) layer through the Liquid Data Application View interface. Liquid Data can retrieve information through commercial application-specific adapters such as SAP, Siebel, PeopleSoft, Oracle Financial and so on which are certified to work with BEA WebLogic Integration.

Internationalization Support

The Liquid Data server and Data View Builder are internationalized and support multi-byte data from the underlying data sources. For this release, the user interface is in English only; it is ready for translation, but has not yet been translated into other languages.

Liquid data has been tested with Japanese character sets, where the underlying databases are running in Japanese locales. In accordance with the XML specification, target schema element names must be composed of single-byte characters. For any specific internationalization issues, see the *Release Notes*.

Installation Prerequisites

Client systems and Server systems have slightly different installation prerequisites—the main difference being that Server systems require that WebLogic Platform 7.0 SP2 is installed before installing the Liquid Data Server. Client systems where you plan to install only the Data View Builder do not require an installation of WebLogic Platform.

- Server Installation Prerequisites
- Client Installation Prerequisites

Server Installation Prerequisites

This section lists the prerequisites for installing the Liquid Data server.

WebLogic Platform 7.0 SP2

You must have WebLogic Platform version 7.0 installed on the system where you plan to install the Liquid Data Server, and have a valid license.

- WebLogic Platform 7.0 SP2 is available as a Web download from the BEA Download Center at http://commerce.bea.com/downloads/products.jsp.
- See the WebLogic Server Installation Guide in the WebLogic Server documentation for instructions on installing WLS.
- See Installing and Updating a WebLogic Server License in the WebLogic Server *Installation Guide* for instructions on how to acquire and install a valid license for WLS.

Application Integration for Application Views Data Sources

Liquid Data works with WebLogic Integration to support the use of *application views* as data sources. If you want to use application views as Liquid Data data sources, you must have completed the following:

- Install and configure WebLogic Integration
- Deploy each adapter for which you will define application views
- Use the Application Integration console to define the application views you want to use as Liquid Data data sources.

WebLogic Integration and the Application Integration console are part of the WebLogic Platform 7.0 SP2.

For complete information on how to use Application Integration—including application views, refer to *Application Integration* (http://edocs.bea.com/wlintegration/v2_1/interm/aihome.htm) in the *BEA WebLogic Integration documentation* (http://edocs.bea.com/wlintegration/v2_1/index.htm). A good place to start is *Introduction to Using Application Integration*.

For convenience, the Liquid Data *Administration Guide* provides information on the final prerequisite step on how to define application views (see Configuring Access to Application Views). But this information is also in the WebLogic Integration documentation.

Memory, JDK, System Requirements, and Other Prerequisites

• Minimum of 256 MB of RAM

The 256-MB RAM recommendation is minimal for one instance of WebLogic Server on which Liquid Data is running. You may need more memory if you run two or more instances of WebLogic Server and/or Liquid Data.

- In addition to the disk space requirements for WebLogic Platform, you need at least 100 MB of free disk space for Liquid Data
- Web browser
 - Microsoft Internet Explorer 5.x or above
 - Netscape Navigator 4.7 or above
- Java 2 SDK, Standard Edition, v1.3.1 (JDK 1.3.1) or higher. (See "Supported Platforms and Databases" on page 1-2 for exact JDK versions required on various platforms.)

When you install WebLogic Server, JDK 1.3.1 is installed directly under the BEA Home directory in the jdk131 directory, as follows:

```
BEA HOME\jdk131 06
```

where BEA_HOME is the path to your BEA home; that is, where you installed WebLogic Platform. By default, BEA_HOME is c:/bea.

Note: jdk131_06 is automatically installed with BEA WebLogic Platform 7.0 SP2, which is a prerequisite for Liquid Data server installation. So, if you are installing the Liquid Data server you will already have the correct JDK installation as a part of the application. However, if you are installing the Data View Builder client only you do need to ensure that you have an installation of at least JRE 1.3.1 (or JDK 1.3.1 which includes the JRE). Some problems have been reported running Data View Builder with jdk131_02, therefore we recommend using jdk131_03 or higher.

• JDK or JRE 1.3.1 bin directory (preferably jdk131 06 or higher) in the PATH

An entry for the JDK or JRE 1.3.1 bin directory (for example <code>BEA_HOME/jdk131_06/bin</code>) must be included in your <code>PATH</code> environment variable setting before any other JDK bin directories. This is a requirement for running the Liquid Data installer program on both Windows and UNIX platforms.

Server Performance Considerations

For information on factors relevant to Liquid Data server performance, see <u>Platform Performance</u> <u>Factors</u> under "Tuning Performance" in <u>Deploying</u> Liquid Data. For larger development projects and for most production environments, it is useful to consider these issues at or before installation time.

Client Installation Prerequisites

• The Liquid Data installer requires access to <JAVA_HOME>/bin/java.exe. Therefore, JRE 1.3.1 (or JDK 1.3.1 which includes the JRE) must be available on the system where the Data View Builder client is installed and an entry for the JDK or JRE 1.3.1 bin directory (for example BEA_HOME/jdk131_06/bin) must be included in your PATH environment variable setting before any other JDK bin directories.

Note: Please note that apart from the requirement for the JDK for use by installer (as detailed above), once it is installed the Data View Builder must use the same version of the JDK that the Liquid Data server uses. For the current release, the Liquid Data server uses JDK 1.3.1_06. For example if Liquid Data server is using C:/BEA_HOME/jdk131_06/, then the Data View Builder must use this same Java home.

• The WLS file weblogic.jar is required to start the Data View Builder. Therefore, a copy of WebLogic Server 7.0 SP2 weblogic.jar file must be available to the machine where you install the Data View Builder. (For install options that include Liquid Data server, this is addressed automatically as a part of the installation but not so for the Client-Only install.)

Note that, unlike the previous JDK/JRE PATH prerequisite, weblogic.jar is not required for the installation itself but will be required *after* installation to start the Data View Builder client. For details, see "For Client-Only Installations Modify Data View Builder Start Script" on page 4-4 in "Post-Installation Tasks."

Note: You can use Liquid Data in a team development environment with multiple clients accessing a shared Liquid Data server Repository for resources such as schema files, XML files, local WSDL definitions for Web services, and so on. For more information on various deployment and development scenarios and environments, see the Deployment Tasks topic in the Deployment Guide.

Required Order of Installation Tasks

To ensure a valid Liquid Data installation, you must install products and components in the following order:

- 1. Install WebLogic Platform 7.0 SP2 including WebLogic Server 7.0 and JDK 1.3.1 (Required for all but Liquid Data Client Only install set.)
- 2. Make sure that the JDK or JRE 1.3.1 < JAVA_HOME > /bin/ is in your PATH and that it is the first Java bin directory specified in PATH. The Liquid Data installation will not complete if Java 1.4 is in the PATH before Java 1.3. For example, in Windows, run the PATH command from a command window to check your PATH environment variable setting, as follows:

```
C:\>path
PATH=C:\bea\jdk131 06\bin;C:\WINNT\system32;C:\WINNT;
```

3. Install Liquid Data.

About Licensing for Liquid Data

When you install Liquid Data, a valid evaluation license is automatically included with the installation. You do not need to take any extra steps for Liquid Data licensing.

What Gets Installed

Before you install Liquid Data, you must install the WebLogic Server.

The full install of Liquid Data results in the installation of the following key components on the system:

- Liquid Data Server (running as a deployed application in WebLogic Server)
- Liquid Data configuration and monitoring pages added to the WLS Administration Console
- Data View Builder GUI

For more information about the software, refer to the Liquid Data *Product Overview* (http://edocs.bea.com/LiquidData/docs10/ldiuser/index.htm).

For information on how to configure Liquid Data once you have installed it, refer to the BEA WebLogic Server *Administration Guide* (http://edocs.bea.com/wls/docs70/adminguide/index.html).

Preconfigured Samples Domain

The full Liquid Data with Samples option provides a preconfigured samples domain as shown in the following table. You can create more domains and add Liquid Data to them.

For a detailed explanation of domains, see the topic Creating and Configuring WebLogic Server Domains in the WebLogic Server documentation.

Table 1-2 Liquid Data Samples Preconfigured Domain and Start Commands for Samples Server

Platform	Windows and UNIX Paths to Start in Each Domain	Description
Windows	Start—>Programs—>BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0—>Liquid Data Samples—>Launch Samples Server Or WL_HOME\liquiddata\samples\config\ ld_samples\startWeblogic.cmd	Starts the Liquid Data samples server on Windows
UNIX	<pre>WL_HOME/liquiddata/samples/config/ ld_samples/startWeblogic.sh</pre>	Starts the Liquid Data samples server on UNIX

Note: *WL_HOME* is the home location of your WebLogic installation, by default, *WL_HOME* is c:/bea/weblogic700.

Considerations for Adding Liquid Data to a WebLogic Server Domain

For information about adding Liquid Data to a WebLogic Server domain (including preconfigured domains for BEA WebLogic Integration, BEA WebLogic Portal, or WebLogic Workshop), see the Deployment Tasks topic in the Deployment Guide. The information provided in the Deployment Guide about adding Liquid Data to a domain as well as setting up clustered environments is relevant to both deployed systems and development environments.

Installing Liquid Data Using GUI Mode

This topic describes how to install BEA Liquid Data for WebLogic $^{\text{TM}}$ using GUI mode. It includes the following sections:

- Before You Install
- Starting the Installer on a Windows Platform
- Starting the Installer on a UNIX Platform
- Installing Liquid Data in GUI Mode
- Next Steps

Before You Install

Note: If you are upgrading from Liquid Data 1.0 to 1.1, review "Migrating from Liquid Data 1.0 to 1.1" prior to installing Liquid Data 1.1.

Before you begin installing Liquid Data, make sure that all installation prerequisites are met. These include:

 Having JDK 1.3.1 or JRE 1.3.1 Java executable in your PATH before any other JDK bin directories. For example, in Windows, run the PATH command from a command window to check your PATH environment variable setting, as follows:

```
C:\>path
PATH=C:\bea\jdk131 06\bin;C:\WINNT\system32;C:\WINNT;
```

- Having WebLogic Platform version 7.0 SP2 installed in the *<BEAHOME>* directory in which you are going to install Liquid Data.
- Making sure that no current or previous version of the Liquid Data server are running.

For complete information about installation prerequisites, see "Installation Prerequisites" on page 1-5 in Chapter 1, "Preparing to Install Liquid Data."

Starting the Installer on a Windows Platform

To start the installer in GUI mode on a Windows platform, use an Explorer file browser to navigate to the folder in which you downloaded the Liquid Data installer, and double-click on the installer executable file.

For example, the installer file for Release 1.0 is liquiddata110_win.exe, and the installer executable file for Release 1.0.1 is liquiddata101 win.exe.

Starting the Installer on a UNIX Platform

To run the installer in GUI mode, make sure that the console attached to the machine on which you are installing the software supports a Java-based GUI.

To start the installer in GUI mode on a UNIX platform, do the following:

- 1. Open a command window, and change directories (cd) in which you downloaded the Liquid Data installer file.
- 2. Start the installer in a new shell by entering the following

For example, to run the installer for the Solaris version of Liquid Data Release 1.0 enter the following command at the prompt:

```
sh filename.bin
```

where filename.bin is the name of the Liquid Data installation program specific to your platform; for example, liquiddatallo_solaris.bin for Release 1.1 Solaris version of Liquid Data.

You will find similarly-named installer files for all UNIX versions of Liquid Data (Solaris, HPUX, AIX, and SuSE Linux).

Installing Liquid Data in GUI Mode

After you start the installer as described in "Starting the Installer on a Windows Platform" on page 2-2 or "Starting the Installer on a UNIX Platform" on page 2-2, perform the following procedure to complete the installation:

The initial Liquid Data installation dialog box is displayed as an introduction.

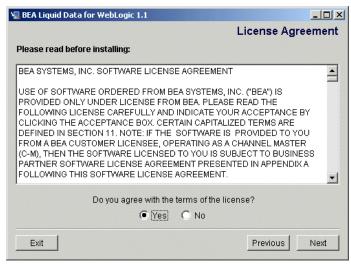
Figure 2-1 Liquid Data Installation Introduction



1. Click Next in the Introduction dialog box.

The License Agreement dialog box is displayed.

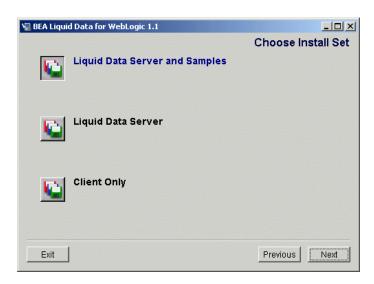
Figure 2-2 License Agreement



2. Review the license agreement, using the scroll bar to display the text. Select the Yes option to accept the license agreement. Click Next.

The Choose Install Set dialog box is displayed.

Figure 2-3 Choose Install Set



3. Select one of the following options:

Liquid Data Server and Samples

This option installs all the Liquid Data components, plus the Liquid Data Samples domain. Liquid Data components installed are the Liquid Data server, the Data View Builder client, the Administration Console.

- Liquid Data Server

This option installs all the Liquid Data components. (The Samples are not installed.)

Client Only

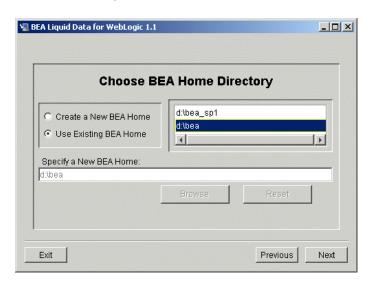
This option installs the Data View Builder client only. (Samples, server, and console are not installed.)

Note: Liquid Data supports a team development system configuration wherein multiple clients can access a shared remote server. The Liquid Data server can be accessed remotely through the Data View Builder. This makes a Client-only install a useful option in scenarios where multiple users have network access to one or more shared remote servers set up with a full Liquid Data installation.

4. Click Next.

The Choose BEA Home Directory dialog box is displayed.

Figure 2-4 Choose BEA Home Directory



The BEA Home directory serves as the central support directory for all the BEA products installed on your system. For a detailed description of how the BEA Home directory is used, see "BEA Home Directory" in "Preparing to Install WebLogic Server" in *Installing WebLogic Server*. This document is available, in the BEA WebLogic Server document set, at the following URL:

http://e-docs.bea.com/wls/docs70/install/instpre.html

- 5. Specify the BEA Home directory as follows:
 - If you selected one of the options that includes the Liquid Data server, verify that the Use Existing BEA Home option is selected. Then select the existing BEA Home directory that contains WebLogic Server 7.0.

Note: If you are installing one of the options that includes Liquid Data server, you must install into the same directory where you installed the WebLogic Platform.

 If you selected the Client Only Installation option, create a new BEA Home in which to install the Data View Builder. (The default is C:\bea.)

6. Click Next.

A warning message is displayed if a previously installed copy of Liquid Data 1.0 is found, or if WebLogic Platform 7.0 is not found in the specified BEA Home directory.

Note: If this occurs, you need to exit the Liquid Data installation and install WebLogic Platform 7.0 SP2 before proceeding with the Liquid Data installation.

If the prerequisite software (WebLogic Platform 7.0 SP2) is present, the "Confirm Install Set Selection" dialog is displayed. The dialog shows the install set you chose.

Figure 2-5 Confirm Install Set



Verify that the information displayed reflects your selections (Liquid Data Server and Sample, Liquid Data Server, or Client Only). Click Install to begin copying files.

Additional information about Liquid Data is displayed as the installer copies files. When the installer finishes copying the required files, the "Congratulations-Install Complete" dialog box is displayed.

7. Click Done to dismiss the Install Complete dialog box.

Next Steps

For all types of installations, you must complete some post-installation tasks before you can work with Liquid Data. See Chapter 4, "Post-Installation Tasks," for information on the following important post-install steps:

- "Verify the Installation by Running the Samples and Starting Data View Builder" on page 4-2.
- "For Client-Only Installations Modify Data View Builder Start Script" on page 4-4.

Installing Liquid Data Using GUI Mode

Installing Liquid Data Using Console or Silent Mode

This section provides the information you need to install BEA Liquid Data for WebLogic™ using either Console mode or Silent mode. It includes the following sections:

- Before You Install—A reminder to make sure that all installation prerequisites are met before you install Liquid Data, including installation of WebLogic Platform version 7.0 SP2 in the BEA home directory where you plan to install Liquid Data.
- Using Console Mode to Install Liquid Data—Console mode is an interactive installation that can be used on a UNIX system without a graphics (windowing) workstation.
- Using Silent Mode to Install Liquid Data—Silent mode is a non-interactive installation on a Windows or UNIX system. The installation gets the required information from a properties file that you provide.
- Next Steps—Refers you to critical post-installation tasks you must complete before you begin working with Liquid Data.

Before You Install

Before you begin installing Liquid Data, make sure that all installation prerequisites are met. For example, some particularly critical prerequisites are:

In order to run the Liquid Data installer, you must have the JDK 1.3.1 or JRE 1.3.1 Java
executable in your PATH before any other JDK bin directories. For example, in Windows, run
the PATH command from a command window to check your PATH environment variable setting,
as follows:

```
C:\>path
PATH=C:\bea\jdk131_06\bin;C:\WINNT\system32;C:\WINNT;
```

• For installations where you install the Liquid Data server, WebLogic Platform version 7.0 must be installed in the BEA Home directory in which you are going to install Liquid Data.

For complete information about installation prerequisites, see "Installation Prerequisites" on page 1-5 in Chapter 1, "Preparing to Install Liquid Data."

Using Console Mode to Install Liquid Data

This section summarizes the console-mode installation procedure, a set of steps that emulates the graphical installation procedure.

Note: You cannot install Liquid Data in console mode on Solaris systems running in a Japanese locale; if you are installing on a Japanese Solaris system, change your locale in the shell in which you are installing to English and then install the product. After Liquid Data is installed, you can then run it in a Japanese locale.

To install Liquid Data on a UNIX system in console mode:

- 1. Go to the directory that contains the Liquid Data installer <code>liquiddata110_solaris.bin</code> file that you downloaded from the BEA Web site.
- 2. Start the installation by entering the following command at the prompt:

```
sh liquiddata110_solaris.bin -i console
```

The message Preparing to install is displayed, followed (within a couple of moments) by the message Preparing CONSOLE Mode Installation. Once preparation is complete, you are prompted to select the language in which you want the text of the installation program to be displayed, as shown in the following text:

```
Choose Locale...
```

->1- English
CHOOSE LOCALE BY NUMBER:

3. Enter 1 or press Enter to accept the default.

Note: If the error message "JDK 1.3 and up is required to start the installer" is displayed, enter quit to exit the installation. Add an entry for the JDK 1.3.1 bin directory, BEA_HOME/jdkl31_06/bin, to the beginning of your PATH environment variable. Then restart the installer.

The following introductory message is displayed:

Introduction

This installer will guide you through the installation of 'BEA Liquid Data'. On each step, answer the questions provided. Type "quit" at any time to exit the installer.

PRESS <ENTER> TO CONTINUE:

4. Press Enter to continue.

The license agreement is displayed. Because the agreement is too long to fit on the screen, only the first section is displayed now.

5. Review the part of the agreement that is currently displayed. Press Enter to display additional text. Repeat until you have reviewed the entire agreement.

When you reach the end of the agreement, you are prompted to accept or reject the terms.

DO YOU AGREE WITH THE TERMS OF THE LICENSE? (Y/N):

6. Enter y to accept the terms.

You are prompted to choose an install set, as shown in the following text:

```
Choose Install Set
------
Please Choose the Install Set to be installed by this installer.
```

- ->1- Liquid Data Server with Samples
 - 2- Liquid Data Server
 - 3- Client Only

ENTER THE NUMBER FOR THE INSTALL SET, OR <ENTER> TO ACCEPT THE DEFAULT:1

7. Do one of the following:

Press Enter to select Liquid Data Server with Samples (option 1).

This option is a full installation of all Liquid Data components, plus the Liquid Data samples. Liquid Data components installed are the Liquid Data server, the Data View Builder client, and the Liquid Data samples.

Enter 2 to select the Liquid Data Server only.
 This option installs the Liquid Data server and Data View Builder. (The Samples are not installed.)

Enter 3 to Select Client Only

This option installs the Data View Builder client only. (Samples and server are not installed.)

Note: Liquid Data supports a team development system configuration wherein multiple clients can access a shared remote server. The Liquid Data server can be accessed remotely through the Data View Builder. This makes a Client-only install a useful option in scenarios where multiple users have network access to one or more shared remote servers set up with a full Liquid Data installation.

You are prompted to choose a BEA Home directory, as shown in the following text:

```
Choose BEA Home Directory

-----

->1- Use Existing BEA Home

2- Create a New BEA Home

Enter a number(1):
```

Note: The BEA Home directory serves as the central support directory for all the BEA products installed on your system. For a detailed description of how this directory is used, see "BEA Home Directory" in "Preparing to Install WebLogic Server" in *Installing BEA WebLogic Server*. This document is available, in the BEA WebLogic Server document set, at the following URL:

```
http://e-docs.bea.com/wls/docs61/install/instpre.html
```

8. Do one of the following:

- If you selected either of the options that includes server install (option 1 or 2), you must install the software in the existing BEA Home directory where you installed the WebLogic Platform. Press Enter to select Use Existing BEA Home.
- If you selected the Client Only Installation option, enter 2 to select Create a New BEA
 Home in which to install the Data View Builder. If the target directory does not already
 exist, it is created. (The default is C:\bea.)
- 9. Do one of the following:
 - If you selected Use Existing BEA Home, you are prompted to select among the available BEA Home directories. Typically, only one BEA Home is available. However, if more than one BEA Home directory is configured, multiple options are displayed, as shown in the following text:

```
->1- /home1/bea
2- /home2/beahome
Existing BEA Home(1):
```

Enter the number corresponding to a BEA Home directory that contains WebLogic Server 7.0.

- If you selected Create a New BEA Home (Client only installation), you are prompted to enter the appropriate path for the new BEA Home directory. Enter the absolute path.
- 10. Press Enter. A warning message may or may not be displayed.
 - A warning message is displayed if a previously installed copy of Liquid Data 1.0 is found, or
 if WebLogic Server 7.0 is not found in the specified BEA Home directory.
 - If no warning message is displayed, you are prompted to choose an installation directory, as shown in the following text:

```
Choose Product Directory

-----
->1- Use Current Selection (/home1/beatoo/weblogic700/bea_ld)

2- Modify Current Selection (/home1/beatoo/weblogic700/bea_ld)

Select a number or <Enter> for default(1):
```

11. Press Enter to install the software in the selected directory, or enter 2 if you want to use a different location. If you enter 2, you are then prompted to specify a product installation directory. Enter the absolute path for your preferred location.

One of the following occurs, depending on the type of installation selected:

- If you selected the Server Only option or Client Only Installation option, the Confirm Install Set message is displayed. Go to step 12.
- If you selected the Client Only Installation, the installation begins. The installation status is displayed as it progresses. When installation is complete, the Install Complete message is displayed. Press Enter to exit the installer.
- 12. A message is displayed showing the components to install and asking you to verify the install set. Verify that the information displayed reflects your selections. Press Enter to begin copying files.
 - The installation begins and the installation status is displayed as it progresses. When the installation is complete, the "Congratulations! Install Complete..." message is displayed.
- 13. Press Enter to exit the installer.

This completes the Console Mode installation process. Be sure to read "Next Steps" on page 3-11 regarding critical post-installation tasks that must be completed before you begin to work with Liquid Data.

Using Silent Mode to Install Liquid Data

Both the Windows and UNIX versions of the installer provide a noninteractive, or *silent-mode* installation, which you can use if you want to install Liquid Data without needing to supply information from the keyboard during the installation process. Instead, the installer gets the required information from a properties file that you provide.

The following sections explain how to install Liquid Data using silent mode.

Notes About Silent Mode

Before launching a silent-mode installation, make sure that all installation prerequisites are met and that all the information in the properties file is correct. For example, one prerequisite for performing a full installation that includes Liquid Data server is that WebLogic Platform version 7.0 SP2 must be installed in the BEA Home directory in which you are going to install Liquid Data. For information about installation prerequisites, see "Installation Prerequisites" on page 1-5 in Chapter 1, "Preparing to Install Liquid Data."

After the silent installer is started, it proceeds in the background and does not report exceptions. Some exceptions are ignored. For example, if a previously installed copy of Liquid Data is detected, it is overwritten.

Other exceptions cause the installer to fail. For example, if the specified BEA Home directory (BEAHOME) and the specified Liquid Data install directory (USER_INSTALL_DIR) does not exist or is incorrect, the installer fails.

On UNIX systems, the installer displays the message Installation Complete when it finishes. This message does not necessarily indicate that the installer was successful; it means only that the process has finished running.

If a fatal exception occurs during installation, no changes are made to the system.

Using Silent Mode on a Windows System

To install using silent mode on a Windows System:

1. Create the required installer properties file. The content of the file is described in "Installer Properties File" on page 3-8.

Note: An easy way to create the file is to copy the text from Listing 3-1, "Sample Installer Properties File," on page 3-10 and then edit it as required.

- 2. Verify that the BEAHOME, USER_INSTALL_DIR, and other values specified in the properties file are correct and that all requirements have been met. See "Notes About Silent Mode" on page 3-6.
- 3. Open a command window.
- 4. Go to the directory that contains the Liquid Data installer liquiddatallo_win.exe file you downloaded from the BEA Web site.
- 5. Execute the following command:

```
liquiddata110 win.exe -f drive:\path\properties file path
```

Here, drive is the letter that identifies the drive being used and properties_file_path is the complete pathname of the properties file. A complete path is required, even if the file resides in the same directory as the liquiddatallo win.exe file.

You are returned to the command prompt. The installation preparation dialog box is displayed. After the installer decompresses the required files, the dialog box is dismissed and the installation proceeds in the background with the information specified in the installer properties file.

Note: To verify that the installer is running, open the Windows Task Manager. The installer is listed as the javaw.exe process.

Using Silent Mode on a UNIX System

To install Liquid Data using silent mode on a UNIX system:

1. Create the required installer properties file. The content of the file is described in "Installer Properties File" on page 3-8.

Note: An easy way to create the file is to copy the text from Listing 3-1, "Sample Installer Properties File," on page 3-10 and then edit it as required.

- 2. Verify that the values specified in the properties file are correct and that all requirements have been met. See "Notes About Silent Mode" on page 3-6.
- 3. Open a command window.
- 4. Go to the directory that contains the Liquid Data installer liquiddata110_win.exe file you downloaded from the BEA Web site.
- 5. Execute the following command at a command line prompt:

```
sh liquiddata110 solaris.bin -f complete properties file path
```

Where <code>complete_properties_file_path</code> is the complete pathname of the properties file. A complete path is required, even if the file resides in the same directory as the <code>liquiddatallo solaris.bin file</code>.

The message Preparing to Install is displayed. After the installer decompresses the required files, the installation proceeds with the information specified in the installer properties file. When the process is complete, the message Installation Complete is displayed.

Installer Properties File

The required properties are summarized in the following table.

Table 3-1 Installer Properties

Sample Property Setting	Description
INSTALLER_UI=silent	Mode of installation. Set to silent for silent mode.
USER_LOCALE=en	Language selection for installer. Set to en for English.

Table 3-1 Installer Properties (Continued)

Sample Property Setting	Description
BEAHOME=d:\\bea BEAHOME=/bea	BEA Home directory. The specified directory must exist on the system. For full installation options that include Liquid Data server, WebLogic Platform version 7.0 SP2 must be installed in the specified BEAHOME directory.
	For Windows, specify the absolute path, including the drive. Backslashes must be escaped.
	For UNIX, specify the absolute path.
USER_INSTALL_DIR=D:\\bea\\weblogic700\\liquiddata USER_INSTALL_DIR=/bea/weblogic700/liquiddata	Product installation directory.
	For Windows, specify the absolute path, including the drive. Backslashes must be escaped.
	For UNIX, specify the absolute path.
CHOSEN_INSTALL_SET=FULL	Type of installation. Specify:
	 FULL—Installs Liquid Data server, Data View Builder client, and samples
	 Server—Installs Liquid Data server and Data View Builder client. No Samples are installed.
	 Client—Data View Builder client only installation. No server or Samples are installed.

A sample installer properties file is shown in the following listing. (Note that specifications for settings for various databases are commented out because these are not required for Liquid Data installation.)

Listing 3-1 Sample Installer Properties File

```
### Silent Installation Properties File
# Installer must be run with -f:
# liquiddata110 win.exe -f path/installer.properties
# All Path separators are platform specific and
# backslashes must be escaped!
INSTALLER UI=SILENT
### Locale
USER LOCALE=en
### BEA Home Directory
BEAHOME=D: \\bea-qa
#BEAHOME=/bea
### Product Installation Directory
USER INSTALL DIR=D:\\bea\\weblogic700\\liquiddata
#USER INSTALL DIR=/bea/weblogic700/liquiddata
```

Next Steps

For all types of installations, you must complete some post-installation tasks before you can work with Liquid Data. See Chapter 4, "Post-Installation Tasks," for information on the following important post-install steps:

- "Verify the Installation by Running the Samples and Starting Data View Builder" on page 4-2
- \bullet "For Client-Only Installations Modify Data View Builder Start Script" on page 4-4

Installing Liquid Data Using Console or Silent Mode

Post-Installation Tasks

After you install BEA Liquid Data for WebLogic TM , we suggest that you do the following:

- Verify the Installation by Running the Samples and Starting Data View Builder
- For Client-Only Installations Modify Data View Builder Start Script
- Verify Client is Using Same Version of JDK as Server
- Work Through the Quick Start Steps
- Start Developing Your Own Data Integration Solution
- Liquid Data Windows Shortcuts and UNIX Paths
- Uninstalling Liquid Data

For convenience, this topic also describes "Liquid Data Windows Shortcuts and UNIX Paths" on page 4-7. Finally, if you need to uninstall Liquid Data for any reason, follow the instructions in "Uninstalling Liquid Data" on page 4-8.

Installing Liquid Data

Verify the Installation by Running the Samples and Starting Data View Builder

After you install Liquid Data, you can verify that your installation was successful by populating the Samples database and starting the Sample server. We suggest that you also take the time to bring up the Data View Builder and connect to the running Samples server. These sections walk you through both tasks:

- Set Up and Run the Samples
- Start Data View Builder and Connect to the Samples Server

Set Up and Run the Samples

To set up and run the Samples do the following:

- 1. Populate the Samples database by running the First-Time Samples Configuration.
 - On a Windows platform, choose the menu item:
 Start—>Programs—>BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0—
 >Liquid Data Samples—>First-Time Samples Configuration
 - On a UNIX platform, open a command window, change directories into the following directory in the Samples domain:

```
WL HOME/liquiddata/samples/config/ld samples/command/
```

Populate the Samples database by running the First-Time Samples Configuration. To do this, enter the following command at the prompt in the same command window.

```
ldsample.sh
```

A PointBase command window is started, and messages related to Samples setup (database population) are displayed for several seconds. When Samples setup is complete this is indicated in the command window. Wait for the database population to complete before proceeding with the next step.

- 2. Run the Samples server.
 - On a Windows platform, choose the menu item:
 Start—>Programs—>BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0—
 >Liquid Data Samples—>Launch Samples Server
 - On a UNIX platform, open a command window and change directories into the Samples domain:

```
WL HOME/liquiddata/samples/config/ld samples
```

Run the server by entering the following command at the prompt

```
sh startWebLogic.sh
```

A Samples Server command window is started, and messages related to starting the server are displayed for several seconds.

Note: The following message in the Samples Server command window indicates that the server is up and running: <Server Started in RUNNING Mode>

3. Run the Liquid Data Avitek Sample.

When the server is up and running, you can run the Sample as follows:

On a Windows platform, choose the menu item:
 Start—>Programs—>BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0—
 >Liquid Data Samples—>Open Samples Home

A default Web browser is started and a Samples Welcome page is displayed in the browser.

- On a UNIX platform, go to the following URL in a Web browser:

```
http://localhost:7001/ldsample/index.htm
```

We suggest that you take some time to tour the Samples a bit and try running the Sample queries. You can learn more about the Samples and associated Quick Start Steps in the Samples documentation.

Start Data View Builder and Connect to the Samples Server

Once you have the Samples server running, be sure to test the Data View Builder client connection by bringing up the Data View Builder and connecting to the running Samples server. In this way, you can make sure the data sources and views used in the Samples are showing up in the Builder client. This also gives you a chance to tinker with the Data View Builder and get familiar with how it works together with the Liquid Data server.

Note: If you have a client-only installation of the Data View Builder you will need to modify the Data View Builder start script to point to weblogic.jar before you can start the Builder. For instructions on how to do this, see "For Client-Only Installations Modify Data View Builder Start Script" on page 4-4.

To start the Data View Builder and connect to the Samples server, do the following:

1. Start the Data View Builder.

- On a Windows platform, choose the menu item:

Start—>Programs—>BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0—>Launch Data View Builder

You can also start the Data View Builder by double-clicking on the file:

```
WL HOME\liquiddata\DataViewBuilder\bin\DVBuilder.cmd
```

The Data View Builder graphical user interface (GUI) starts up and a Login window is displayed.

- 2. Connect to your Samples server.
 - a. Enter the following address in the Server URI field on the Login window. (No username or password is required here. Leave those fields blank.)

```
t3://localhost:7001
```

b. Click the Login button.

The Data View Builder desktop and tools are displayed. Relational Databases (RDBMS) is selected on the left navigation panel. Three RDBMS data sources are shown: PB-BB, PB-CR, PB-WL. These are the PointBase RDBMS data sources used by the Samples. You can double-click on each of these data sources in the left panel to display their source XML schemas in the Data View Builder workspace.

For Client-Only Installations Modify Data View Builder Start Script

Data View Builder startup requires the following:

- A copy of WebLogic Server 7.0 weblogic.jar file must be available to the machine on which you installed the Data View Builder.
- Valid path to WebLogic 7.0 file weblogic.jar in Data View Builder start script
- Valid path to the JDK 1.3.1 or JRE 1.3.1 Java executable in Data View Builder start script. (This is provided in the script automatically.)

In a Liquid Data "Client-Only" installation that includes only Data View Builder, the user must specify these settings manually. (Whereas for install set options that include the Liquid Data server, these are taken care of automatically at install time.)

To configure a Client-Only system for Data View Builder startup, do the following after install.

Ensure that weblogic.jar is Available on Client System

If you have not already done so, copy WebLogic Server 7.0 weblogic.jar file onto the system where you installed Data View Builder or make a remote instance of this file available to your local machine by mapping a drive to its location and path.

Modify Data View Builder Start Script for weblogic.jar

To modify the start script as needed, do the following:

- 1. Find the Data View Builder start script on the system where you installed the Data View Builder.

 WL HOME\liquiddata\DataViewBuilder\bin\DVBuilder.cmd
- 2. Edit the Data View Builder start script to provide appropriate path for the weblogic.jar.

The following code listing (Listing 4-1) shows the "User Configuration" section of the Data View Builder start script. (The lines you need to modify are shown in bold.).

Modify the setting for the CLASSPATH variable so that it points to the local instance of weblogic.jar. (The default value provided for CLASSPATH will not work for your Client-Only install because WLS HOME probably does not exist.)

Listing 4-1 Data View Builder Start Script: User Configuration Section

```
: User configuration
: JAVA runtime environment
: If the default configuration does not work on your system set the local
: variable JAVA to point to the location of the Java interpreter (java.exe)
: Example:
: set JAVA=c:\jdk1.3\bin\java
: JAVA classpath
: Use the local variable CLASSPATH to add custom entries (e.g. JDBC drivers) to
: the classpath. Separate multiple paths with ";". Adding additional files
: or locations on separate lines makes things clearer.
: Example:
      Set the CLASSPATH to a jar file and a directory. Note that
      "classes dir" is a directory of class files with a space in the name.
: SET CLASSPATH=C:\Product1\lib\product.jar
: SET CLASSPATH=%CLASSPATH%; C:\MyProject\classes dir
: set WLS HOME=C:\bea\weblogic700 //remove or comment out this line
```

3. Save the modified Data View Builder start script file.

You are now ready to start the Data View Builder on the Client-Only system. (See "Start Data View Builder and Connect to the Samples Server" on page 4-3.) Remember that you must have the Liquid Data server running before you start the Data View Builder.

Verify Client is Using Same Version of JDK as Server

Please note that apart from the requirement for the JDK for use by installer (as detailed in "Client Installation Prerequisites" on page 1-8), once it is installed the Data View Builder must use the same version of the JDK that the Liquid Data server uses. For the current release, the Liquid Data server uses JDK 1.3.1_06. For example if Liquid Data server is using C:/BEA_HOME/jdk131_06/, then the Data View Builder must use this same Java Home. An entry for the JDK or JRE 1.3.1 bin directory (for example BEA_HOME/jdk131_06/bin) must be included in your PATH environment variable setting before any other JDK bin directories.

You can also set the a local JDK home for the Data View Builder in the Data View Builder start script (see Listing 4-1) by uncommenting the line set JAVA=c:\jdk1.3\bin\java and setting it to the appropriate JDK Home; however, this should not be necessary if the right JDK Home is in your PATH.

Work Through the Quick Start Steps

Work through the Samples and Getting Started steps which show you how to do the following basic tasks:

- Start the Liquid Data server
- Start the WLS Administration Console and use it to set up a data source.

- Start the Data View Builder and use it to map source and target XML schemas and construct a
 query.
- Run the query you just built.
- Save the project.

Start Developing Your Own Data Integration Solution

Developing your own data integration solution consists of a design phase and an implementation phase. If you want help stepping through the end-to-end process, including design of a business solution, configuration, query construction, JSP presentation, deployment, and using Liquid Data with other BEA products, refer to the Liquid Data *Product Overview* for an in-depth look at the data integration process and features.

- If you are ready to start setting up and configuring your own data sources, refer to the Liquid Data *Administration Guide*.
- If you are ready to start mapping source and target XML schemas and constructing queries in the Data View Builder, refer to *Building Queries and Data Views*.

Liquid Data Windows Shortcuts and UNIX Paths

When installing Liquid Data on a Windows system, the installer program uses BEA WebLogic Platform as the parent folder for WebLogic Server and BEA Liquid Data. However, on the Start menu BEA Liquid Data shows up under "Programs" as follows:

Start—>Programs—>BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0

The Liquid Data folder contains the following shortcut files:

- Liquid Data Samples—>First-Time Samples Configuration—Populates the Samples databases. You need to populate the Samples database before running the Samples for the first time. Choose this action when you have first install Liquid Data.
- Liquid Data Samples—>Launch Samples Server—Starts the Liquid Data Samples server by running the startWebLogic command in the following domain:

```
WL_HOME/liquiddata/samples/config/ld_samples
```

• Liquid Data Samples—>Open Samples Home—Launches the Liquid Data Sample in your default Web browser at this URL:

```
http://localhost:7001/ldsample/index.htm
```

Provides information about how to run the Avitek Sample queries and where to find more query examples with readme files.

• Launch Data View Builder—Launches the Data View Builder GUI tool. The Windows executable command to start this tool are in the following location:

WL HOME/liquiddata/DataViewBuilder/bin

The command to start the Data View Builder on Windows is DVBuilder.cmd.

- Online Documentation—Launches the Liquid Data Online Documentation in your default Web browser. This requires an internet connection because online documentation resides at BEA edocs site. The path to the Liquid Data documentation home page on "edocs" is: http://edocs.bea.com/liquiddata/docs10/index.html
- Start Admin Console—Starts the WLS Administration Console for the Liquid Data server that is currently running.
- Uninstall—Uninstalls the Liquid Data software.

Uninstalling Liquid Data

Removing Liquid Data requires you to run the Liquid Data uninstaller and then manually remove the Liquid Data directory containing the extra files not removed by the uninstaller. In cases where you have added Liquid Data to another domain, when you uninstall you must also undeploy before you uninstall. For information on undeploying, see the topic Undeploying Deployed Applications in the WebLogic Server documentation.

For a successful installation of Liquid Data, the WL_HOME directory into which you install a new version of Liquid Data must not contain any files from a previously installed version. Extra files or folders left in place from an old install can cause a defective installation of a new version of Liquid Data.

To uninstall Liquid Data:

- 1. Run the Liquid Data uninstaller according to the following instructions:
 - Windows—Choose Start—>Programs—BEA WebLogic Platform 7.0—>Liquid Data for WebLogic 1.0—>uninstall, or run the following command:

```
WL HOME\liquiddata\uninstaller\uninstall.cmd
```

- **UNIX**—Run the following command:

```
WL HOME/liquiddata/uninstaller/uninstall
```

(Use this uninstall option if you installed via GUI mode as described in Chapter 2, "Installing Liquid Data Using GUI Mode.")

or

WL HOME/liquiddata/uninstaller/uninstall -i CONSOLE

(Use this uninstall option with "-i CONSOLE" if you installed via Console mode as described in Chapter 3, "Installing Liquid Data Using Console or Silent Mode.")

Note: When the uninstall is completed it will notify you that there are some files that could not be removed by the automated uninstall. This could be a result of new files that were generated or user-created after Liquid Data was installed. For example if you added new target schemas, stored queries, Web services, and so on to the Repository, the uninstaller will not remove these files. If you need these files, be sure to save them elsewhere before proceeding to the next step.

- 2. To remove the leftover files, manually delete the Liquid Data domain directory. To do this, remove the following directory:
 - Windows

BEA_HOME\weblogic700\liquiddata

- UNIX

BEA HOME/weblogic700/liquiddata

Post-Installation Tasks

Migrating from Liquid Data 1.0 to 1.1

The basic migration of Liquid Data 1.0 to 1.1 is straightforward. This section provides instructions for such a migration which includes:

- Platform Installation and Configuration
- Liquid Data 1.1 Installation and Deployment
- Liquid Data Migration Steps

Platform Installation and Configuration

Before installing Liquid Data 1.1, the WebLogic platform and domains you will be using with Liquid Data 1.1 must be installed and configured properly. Specifically:

- A 7.0 SP2 WebLogic Platform is successfully installed in a fresh location (*not* over an existing 7.0 SP1 Platform installation).
- The appropriate Liquid Data domain(s) is deployed to the same *BEA_HOME* used by 7.0 SP2.

Note: If you are using Liquid Data with more than one domain, you must follow these procedures for each domain that you want to migrate to Liquid Data 1.1.

Liquid Data 1.1 Installation and Deployment

In order to migrate from Liquid Data 1.0 to 1.1 you must create a new Liquid Data installation. In a production environment, that installation must be completed for each 7.0 SP2 WebLogic domain that you are using with Liquid Data.

Liquid Data 1.1 Installation

Follow the appropriate preparation, installation, and post-installation steps described in the other sections of this document starting with "Preparing to Install Liquid Data" on page 1-1.

Liquid Data 1.1 Deployment

If you are using Liquid Data in a production environment, deploy Liquid Data to the appropriate BEA WebLogic Platform domain. Liquid Data 1.1 supports deployment through the WebLogic Domain Wizard. Through this wizard you can select the appropriate Liquid Data WebLogic deployment such as WebLogic Portal (WLP), WebLogic Integration (WLI), WebLogic Server (WLS), and WebLogic Workshop. See the document Deploying Liquid Data for details.

As you are upgrading to WebLogic 7.0 SP2 you may also want to migrate other BEA products from the same domain.

For information on migrating domains created by the WebLogic Domain Wizard, see:

 $\verb|http://edocs.bea.com/platform/docs70/relnotes/relnotes.html#migration||$

If you are migrating WebLogic Integration, (WLI) WebLogic Portal (WLP), and WebLogic Server (WLS) see:

http://edocs.bea.com/platform/docs70/interm/migrate.html

Liquid Data Migration Steps

Perform the following steps in the order presented to migrate your 1.0 Liquid Data repository and any Liquid Data applications you have created to Liquid Data 1.1.

- Step 1: Export Liquid Data 1.0 Data Sources
- Step 2: Copy the 1.0 Liquid Data Repository to 1.1
- Step 3: Re-create JDBC Connections and JDBC Data Sources
- Step 4: Migrate Liquid Data-related Project Files, Applications, Custom Functions, and Web Services Not Generated by Liquid Data
- Step 5: Migrating Existing Liquid Data-generated Web Services
- Step 6: Import Liquid Data 1.0 Data Sources
- Step 7: Migrate 1.0 Stored Queries and Data Views

• Step 8: Test Your Migration Under Liquid Data 1.1

See also What Liquid Data Does Not Import or Export, in the Administration Guide.

Example directories

Examples used in this chapter assume that the Liquid Data 1.0 directory is located at:

```
/opt/prod/bea 70SP1/user domains/ld domain
```

where bea70SP1 is the location of the WebLogic 7.0 SP1 server and ld_domain is the location of the Liquid Data 1.0 domain you want to migrate to Liquid Data 1.1.

These examples also assume that the new Liquid Data 1.1 installation is location at:

```
/opt/prod/bea 70SP2/user domains/ld domain
```

where bea70SP2 is the location of the WebLogic 7.0 SP2 server and ld_domain is the location of the new Liquid Data 1.1 installation.

When the discussion relates to the WebLogic 7.0 SP1 installation, <code>BEAHOME_SP1</code> is used. Similarly, <code>BEAHOME_SP2</code> represents the WebLogic 7.0 SP2 installation.

The symbolic name ld_repository represents the Liquid Data repository and its contents.

Step 1: Export Liquid Data 1.0 Data Sources

This section describes prerequisites and provides specific instructions for migrating Liquid Data 1.0 data sources to Liquid Data 1.1.

Note: Security settings and cache policies are automatically transferred along with data sources.

Item	Status
WebLogic 7.0 SP1 and Liquid Data 1.0	Installed
WebLogic 7.0 SP2 and Liquid Data 1.1	Installed
Liquid Data 1.0 Server	Running
Liquid Data 1.1 Server	Not running

Actions Required

Perform the following steps to export Liquid Data 1.0 data sources:

- 1. Start WebLogic 7.0 SP1 and Liquid Data 1.0.
- 2. Open the Administration Console.
- 3. Export the Liquid Data data sources following the procedure described in the 1.0 Liquid Data *Administration Guide*:

http://edocs.bea.com/liquiddata/docs10/admin/impexp.html#1044952

For example, suppose your Liquid Data 1.0 domain is located at:

```
/opt/prod/bea_70SP1/user_domains/ld_domain
```

and the Liquid Data 1.1 domain is located at:

```
/opt/prod/bea_70SP2/user_domains/ld_domain
```

then if you export to the filename myDataSource.xml, your file will be create in the following directory:

/opt/prod/bea_70SP1/user_domains/ld_domain/ld_repository/import_export

Step 2: Copy the 1.0 Liquid Data Repository to 1.1

This section describes prerequisites and provides specific instructions for copying the Liquid Data 1.0 repository to Liquid Data 1.1.

Item	Status
Migration Step 1	Completed
Liquid Data 1.0 Server	Not running
Liquid Data 1.1 Server	Not running

Actions Required

Perform the following steps to migrate your Liquid Data repository:

1. Make sure no instance of the WebLogic Platform or Liquid Data is running.

Copy the Liquid Data 1.0 repository directory structure to the new repository location.

You can use the Administration Console to determine the name and location of your 1.0 Liquid Data repository. For details see Configuring Liquid Data Server Settings in the *Administration Guide*.

Using the example directory structure you would copy:

```
/opt/prod/bea_70SP1/user_domains/ld_domain/ld_repository
to the directory:
   /opt/prod/bea_70SP2/user_domains/ld_domain
```

```
/ ope/prod/bed_/obiz/dber_domains/id_doma
```

- 2. Start the Liquid Data 1.1 server in BEAHOME_SP2.
- 3. Open the Administration Console.
- 4. Set the Liquid Data repository location to the newly copied repository directory. For details see discussions in the Liquid Data *Administration Guide* on Configuring Liquid Data Server Settings and Managing the Liquid Data Server Repository.

Step 3: Re-create JDBC Connections and JDBC Data Sources

This section describes prerequisites and provides links to instructions for recreating Liquid Data 1.0 JDBC connections and data sources under Liquid Data 1.1.

Item	Status
Migration Steps 1 and 2	Completed
Liquid Data 1.0 Server	Not running
Liquid Data 1.1 Server	Running

Actions Required

To migrate your Liquid Data JDBC connectivity to relational databases, first determine the directory location of the 1.0 Liquid Data domain you are migrating from, as follows:

- 1. Click the Home icon at the upper-right of the WebLogic 7.0 SP1 Administration Console.
- 2. Under Domain Configuration, click Domains.
- 3. Note the appropriate Liquid Data domain. The config.xml file for a particular domain is in a directory of the same name. For example the <code>BEAHOME_SP1</code> config.xml file would be found in the following directory:

/opt/prod/bea_70SP1/user_domains/ld_domain/config/ld_domain

- 4. Inspect config.xml for your JDBC configuration information.
- 5. Start WebLogic 7.0 SP2 and Liquid Data 1.1.
- 6. Recreate the JDBC connections and JDBC data sources in the new Liquid Data 1.1 domain.

For detailed information on managing JDBC data sources and connections, see Managing JDBC Connectivity in the WebLogic Server *Administration Guide* and Migrating Domains Using the Configuration Wizard in the WebLogic Platform *Release Notes: 7.0 Service Pack 2*.

Step 4: Migrate Liquid Data-related Project Files, Applications, Custom Functions, and Web Services Not Generated by Liquid Data

This section describes prerequisites and provides specific instructions for moving Liquid Data-related project files, applications, custom functions, and web services *not* generated by Liquid Data from Liquid Data 1.0 to 1.1.

Item	Status
Migration Steps 1-3	Completed
Liquid Data 1.0 Server	Not running
Liquid Data 1.1 Server	Running

Actions Required

Move and deploy any Liquid Data 1.0-related project files, applications, custom functions, and web services not in the repository.

- 1. In Liquid Data 1.0, locate the files you want to move to Liquid Data 1.1.
- 2. Copy the files to the same relative location in Liquid Data 1.1.
- 3. Use the Administration Console Deployments node to (re)deploy applications, EJBs, web applications, web services, connectors, and so forth.

For additional information on such migrations see discussions in the Liquid Data *Administration Guide* on:

- Configuring Access to Web Services
- Configuring Access to Custom Functions
- Configuring Access to Application Views

Step 5: Migrating Existing Liquid Data-generated Web Services

This section describes prerequisites and provides specific instructions for migrating Liquid Data-generated web services from Liquid Data 1.0 to 1.1.

Item	Status
Migration Steps 1-4	Completed
Liquid Data 1.0 Server	Not running
Liquid Data 1.1 Server	Running

Note: The LDWSMigrate script will function properly only if the referenced data sources are properly configured in WebLogic 7.0 SP2. See Step 3: Re-create JDBC Connections and JDBC Data Sources for details.

Actions Required

Use the LDWSMigrate script to convert Liquid Data 1.0 Liquid Data-generated web services to 1.1-level. The script is installed to the following location:

```
/opt/prod/bea_70SP2/user_domains/ld_domain/migration/LDWSMigrate where ld_domain is the root location of your newly installed version of Liquid Data.
```

Syntax

LDWSMigrate <inputDirectory> [<outputDirectory>]

Description

The LDWSMigrate script generates appropriate XML namespace declarations for Liquid Data generated web services during the conversion process.

The LDWSMigrate script requires two parameters.

<inputDirectory>

This parameter specifies the full path to the directory containing the web services ear files generated using Liquid Data 1.0.

In the case of the sample migration described in this document, the 1.0-level Liquid Data-generated Web queries are located in the following directory:

```
/opt/prod/bea_70SP1/user_domains/ld_domain/ld_repository/web_services_gen
```

[<outputDirectory>]

This parameter specifies the target path for the converted ear files.

In the case of the sample migration described in this document, the 1.0-level web services ear files will be integrated to the following directory:

 $\verb|/opt/prod/bea_70SP2/user_domains/ld_domain/ld_repository/web_services_gen/scratch| \\$

If an outputDirectory parameter is not supplied, the converted files with a prefix of new_are placed in a newly-created directory called scratch under web_services_gen:

 $\verb|/opt/prod/bea_70SP1/user_domains/ld_domain/ld_repository/web_services_gen/scratch| \\$

Example

LDWSMigrate

c:/opt/prod/bea_70SP1/user-domains/ld_domain/ldrepository/web_services_gen c:/opt/prod/bea_70SP2/user_domains/ld_domain/ldrepository/web_services_gen

The respective domain of each Liquid Data installation is represented by 1d domain.

Step 6: Import Liquid Data 1.0 Data Sources

This section describes prerequisites and provides specific instructions for importing Liquid Data 1.0 data sources into Liquid Data 1.1.

Prerequisites

Item	Status
Migration Steps 1-5	Completed
Liquid Data 1.0 Server	Not running
Liquid Data 1.1 Server	Running

Actions Required

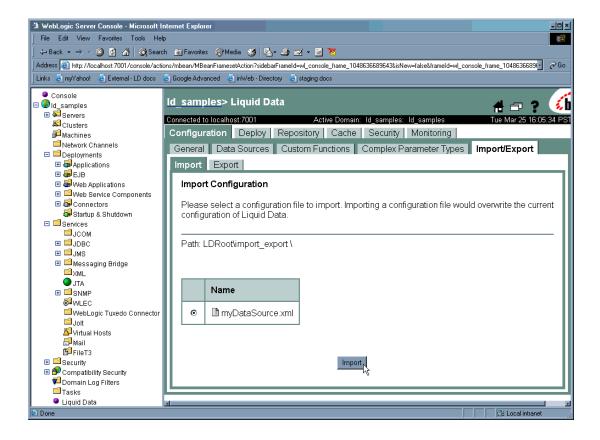
If you have followed instructions in Step 2: Copy the 1.0 Liquid Data Repository to 1.1, your 1.1 data source file myDataSource.xml is available under BEAHOME SP2 in the following location:

/opt/prod/bea 70SP2/user domains/ld domain/ld repository/import export

To import the Liquid Data data sources follow the procedure described in the Liquid Data 1.0 *Administration Guide*:

http://edocs.bea.com/liquiddata/docs10/admin/impexp.html#1044952

Figure 0-1 Importing a Data Source Through the Administration Console



Step 7: Migrate 1.0 Stored Queries and Data Views

This section describes prerequisites and provides specific instructions for migrating Liquid Data 1.0 stored queries and dataviews to Liquid Data 1.1.

Item	Status
Migration Steps 1-6	Completed
Liquid Data 1.0 Server	Not running
Liquid Data 1.1 Server	Running

Notes:

- The QueryMigrate script will function properly only if the referenced data sources are properly configured in WebLogic 7.0 SP2. See Step 3: Re-create JDBC Connections and JDBC Data Sources for details.
- Some Liquid Data 1.0 queries cannot be automatically migrated to 1.1. Specifically, if you have
 queries that are built on top of data views starting with a numeric first character, you first need
 to:
 - Rename and save the referenced data view.
 - Resave the query after making sure that it runs correctly.

Actions Required

Convert Liquid Data 1.0 stored queries and data views to 1.1-level using the queryMigrate script. The script is installed to the following location:

```
/opt/prod/bea_70SP2/user_domains/ld_domain/migration/queryMigrate where ld domain is the location of your newly installed Liquid Data 1.1 domain.
```

Syntax

```
queryMigrate <admin_url> <inputDirectory> [ <outputDirectory> ]
```

Description

The queryMigrate script generates appropriate XML namespace declarations for stored queries and data views during the conversion process. For additional information see Understanding XML Namespaces in Building Queries and Dataviews.

The gueryMigrate script requires three parameters, described below.

<admin url>

This parameter specifies the administration URL of the 1.1 Liquid Data Server. For example:

```
t3://localhost:7001
```

<inputDirectory>

This parameter specifies the location of stored queries or data views to be converted.

For the sample migration described in this document, the 1.0-level stored queries are in the following directory:

```
/opt/prod/bea_70SP1/user_domains/ld_domain/ld_repository/stored_queries
    and 1.0-level data views are in the following directory:
```

```
/opt/prod/bea_70SP1/user_domains/ld_domain/ld_repository/data_views
```

[<outputDirectory>]

This optional parameter specifies the target location of the converted stored queries or data views.

For the sample migration described in this document, the 1.1-level stored queries will be located in the following directory:

```
/opt/prod/bea_70SP2/user_domains/ld_domain/ld_repository/stored_queries and the 1.0-level data views will be located in the following directory:
```

```
/opt/prod/bea_70SP2/user_domains/ld_domain/ld_repository/data_views
```

Examples

```
queryMigrate t3://localhost:7001
c:/opt/prod/bea_70SP1/user_domains/ld_domain/ldrepository/stored_queries
c:/opt/prod/bea_70SP2/user_domains/ld_domain/ldrepository/stored_queries
queryMigrate t3://localhost:7001
c:/opt/prod/bea_70SP1/user_domains/ld_domain/ldrepository/data_views
c:/opt/prod/bea_70SP2/user_domains/ld_domain/ldrepository/data_views
```

The respective domain of each Liquid Data installation is represented by $\protect\operatorname{\mathtt{Id_domain}}$.

If no output directory is provided, the inputDirectory location is used and the prefix new_ is prepended to the name of the generated file.

Step 8: Test Your Migration Under Liquid Data 1.1

This section describes how to test the migration from Liquid Data 1.0 to Liquid Data 1.1 by verifying hat your 1.0 metadata is available under Liquid Data 1.1.

- Using the Liquid Data 1.1 Administration Console and the Data View Builder, make sure that the appropriate data sources are available to Liquid Data 1.1.
- Test your projects. Liquid Data 1.0 project files can be opened directly with Liquid Data 1.1 and will be converted to support Liquid Data 1.1 automatically when they are saved. If you created project files in the Liquid Data 1.0 directory structure, you may want to move these projects to the Liquid Data 1.1 area, but there in no requirement that you do so.
- Test your stored queries. You can do this using either an EJB API or the Data View Builder.
 - EJB API. See Invoking Queries in EJB Clients in Invoking Liquid Data Queries Programmatically.
 - Data View Builder. You can load a stored query using the Data View Builder File -> Open
 Query command. (You may need to navigate to the directory containing your stored
 queries.)

Once your query has been loaded, you can run it. See Testing Queries in Building Queries and Data Views.

When you are sure your migration from Liquid Data 1.0 to 1.1 has been successful, you are ready to start using Liquid Data 1.1. It is suggested that you retain your Liquid Data 1.0 installation for a reasonable time and then archive it for safekeeping.

Migrating from Liquid Data $1.0\ \text{to}\ 1.1$

Index

В	M
BEA_HOME, default path 1-7	memory requirements 1-7
browsers, supported 1-7	
	Р
C	platform support 1-2
customer support contact information -viii	printing product documentation -viii
••	1 01
D	R
Data View Builder	related information -viii
server URI 4-3	requirements
starting 4-3	disk space 1-7
database support 1-2	memory 1-7
disk space requirements 1-7	
documentation, where to find it -viii	S
_	samples, setting up and running 4-2
E	silent installation
environment variables	on UNIX 3-8
BEA_HOME 1-7	on Windows 3-7
WL_HOME 1-10	support
error messages, JDK requirement 3-3	technical -ix
I	U
installation, verifying 4-2	uninstalling Liquid Data 4-8
1	V
JDK required 1-7	verifying a successful installation 4-2

W

WL_HOME, default path 1-10