
Liant Software Corporation

Relativity[®]

DBA Installation Guide

First Edition

LIANT

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Contents

Preface	1
Introducing the Relativity DBA	1
Related Relativity Documentation.....	2
Conventions Used in this Document	3
Registration	3
Technical Support.....	4
Support Guidelines.....	4
Test Cases.....	4
Chapter 1: Installation.....	7
System Requirements	7
Installing the Relativity DBA	8
CD-ROM Installation	8
Electronic Software Delivery Installation	9
Automated Installation	10
Removing the Relativity DBA	11
Chapter 2: Verification	13
Methodology	13
Prerequisites	13
Starting the Relativity DBA	14
Opening a Data Source	15
Viewing a Table Connection	16
Using Online Help.....	17
Closing the Data Source	18
Exiting the Relativity DBA	18

Preface

Introducing the Relativity DBA

The Relativity DBA (Database Administrator) is an interactive, Windows-based tool that enables the System Administrator at the end user location to maintain and manage the Relativity database and the security of the Relativity database.

The Relativity DBA provides the following functions:

- Defines and authorizes users of a Relativity database.
- Restricts the view of the data for individual groups of users.
- Maintains the linkages, known as table connections, between table definitions and physical COBOL data files.
- Manages date constants.
- Merges security and table connection information into a new catalog (an optional function controlled by the catalog developer).
- Produces reports on security and connections.

This manual, the *Relativity DBA Installation Guide*, which is part of the Relativity document set listed in [Related Relativity Documentation](#) (on page 2), describes how to install the Relativity DBA software component and verify that the installation was successful.

In addition, your Relativity package contains the document, *The Theory of Relativity, A Primer*, which defines specific terminology and provides a comprehensive overview of the Relativity software tools and their functions. Before you install this Relativity product, be sure to read this book.

Related Relativity Documentation

In addition to the *Relativity DBA Installation Guide* and *The Theory of Relativity, A Primer*, the Relativity documentation set consists of the following items:

- **Relativity Client/Server Installation Guide.** A document (one for UNIX and one for Windows NT) that is intended for a System Administrator. It describes the following:
 - How to install the Relativity Data Server software component on a computer running either a UNIX or Windows NT operating system and verify that the installation was successful.
 - How to:
 - Install the Relativity Data Client software component on a secure Windows workstation (such as the workstation belonging to a Database Administrator) for the purpose of catalog development.
 - Install the Relativity Server Administrator utility program in order to define a server for the client and configure a server data source.
 - Verify communications between the client and the server.
 - How to install the Relativity Data Client software component on an end user's Windows workstation and verify that the installation was successful by configuring a client data source and associating it with a server data source.
 - How to run the RM/COBOL Indexed File Recovery utility (**recover1**) to recover an RM/COBOL indexed file.
- **Relativity Data Client for UNIX Installation Guide.** A document that describes how to install and verify the Relativity Data Client software component on a UNIX-based server or workstation. It also describes the utilities for creating client and server data sources.
- **UNIX Driver Managers Build Guides.** A pair of HTML documents, located in the UDrvMan directory on the Relativity Data Server product CD, that give instructions on how to build the two ODBC Driver Managers for UNIX (unixODBC and iODBC) on the various UNIX platforms that the Relativity Data Client for UNIX supports. Note that these documents should be referenced only if you decide to rebuild the Liant-supplied versions of these Driver Managers.
- **Relativity Data Manager Installation Guide.** A document that describes how to install the Relativity Data Manager software component on a Windows-based workstation and verify that the installation was successful.
- **Relativity Designer Installation Guide.** A document that describes how to install the Relativity Designer software component and verify that the installation was successful.
- **Relativity Java Client User's Guide.** An HTML document, located on the Relativity product CD, that describes the installation and verification of the Relativity Java Client as well as information about deploying it with Java applications and applets, and setting up data source connections. The Java Client is a Java Database Connectivity (JDBC) component that resides in a Java runtime environment (JRE).

- **Relativity Online Help Documentation.** An online help documentation system that provides fast access to detailed information on Relativity features and options. The help system also contains step-by-step presentations on how to accomplish specific tasks with Relativity and an extensive glossary. A separate help file is provided for each of the various Relativity tools: the DBMS (Data Client and Data Manager), the Designer, the DBA, and the Server Administrator. For more details, see [Using Online Help](#) (on page 17).
- **Relativity README Files.** A set of online HTML documents that lists any changes to the Relativity documentation since its publication and contains new technical information that supplements the documentation.

Conventions Used in this Document

This document contains visual cues to help the reader identify important information.

Table Convention	Indicates
Initial Capitals	Menu names, command names, dialog box and form titles.
Bold	Menu, command, and button names. Other elements to be selected or typed to accomplish an action.
<i>Italic</i>	Label on input media used during installation. Reference to a topic in the current document or another Relativity document. Reference to another document.
<i>Bold Italic</i>	Variables.

Registration

Please take a moment to fill out and mail (or fax) the registration card you received with Relativity. You can also complete this process by registering your Liant product online at: <http://www.liant.com>.

Registering your product entitles you to the following benefits:

- **Customer support.** Free 30-day telephone support, including direct access to support personnel and 24-hour message service.
- **Special upgrades.** Free media updates and upgrades within 60 days of purchase.
- **Product information.** Notification of upgrades or revisions to Relativity when they are released.

You can also receive up-to-date information about Liant and all its products via our website. Check back often for updated content.

Technical Support

Liant Software Corporation is dedicated to helping you achieve the highest possible performance from the Liant family of products. The technical support staff is committed to providing you prompt and professional service when you have problems or questions about your Liant products.

Technical support services are subject to Liant's prices, terms, and conditions in place at the time the service is requested.

While it is not possible to maintain and support specific releases of all software indefinitely, we offer priority support for the most current release of each product. For customers who elect not to upgrade to the most current release of the products, support is provided on a limited basis, as time and resources allow.

Support Guidelines

When you need assistance, you can expedite your call by having the following information available for the technical support representative:

- Company name and contact information.
- Liant product serial number (found on the media label, registration card, or product banner message).
- Liant product version number.
- Operating system and version number.
- Hardware, related equipment, and terminal type.
- Exact message appearing on screen.
- Concise explanation of the problem and process involved when the problem occurred.

Test Cases

You may be asked for an example (test case) of the source that demonstrates the problem.

- The smaller the test case is, the faster we will be able to isolate the cause of the problem.
- Do not send full applications.
- Reduce the test case to the smallest possible combination of components required to reproduce the problem.
- If you have very large data files, write a small program to read in your current data files and to create new data files with as few records as necessary to reproduce the problem.
- Test the test case before sending it to us to ensure that you have included all the necessary components to run the test case.

When submitting your test case, please include the following items:

1. **README text file that explains the problems.** This file must include information regarding the hardware, operating system, and versions of all relevant software (including the operating system and all Liant products). It must also include step-by-step instructions to reproduce the behavior.
2. **Program source files.** We require source for any program that is called during the course of the test case. Be sure to include any copy files necessary for recompilation.
3. **Data files required by the programs.** These files should be as small as possible to reproduce the problem described in the test case.

Chapter 1: Installation

This chapter lists the system requirements and describes how to install the Relativity DBA software program on a Microsoft Windows operating system. Procedures for [removing the Relativity DBA](#) (on page 11), if necessary, are also provided.

System Requirements

Installation of the Relativity DBA on a Windows-based workstation for application development requires the following minimum software and hardware.

Component	Requirement
Computer	Pentium-class processor or higher.
Operating System	Microsoft Windows 98 or Windows 98 Second Edition (SE), Windows Millennium Edition (Me), Windows NT 4.0 or later (Service Pack 6 or higher recommended), Windows 2000, Windows XP, or Windows Server 2003.
Memory	64 MB is recommended.
Disk Space	A hard drive with at least 11 MB of free disk space.
Installation Media	Internet access and/or one CD-ROM drive and one 3.5" diskette drive.
Monitor	800x600 resolution is required. Higher resolution is recommended.
Internet Browser	A browser (for example, Netscape or Microsoft Internet Explorer) capable of viewing HTML files, such as the README text or other documents that are available in this format.

Installing the Relativity DBA

Note If you have a version of Relativity that supports the uninstall process, you should remove it prior to installing a newer version. See [Removing the Relativity DBA](#) (on page 11).

The Relativity DBA can be installed on a Windows workstation using either of the following methods:

- [CD-ROM Installation](#) (on page 8)
- [Electronic Software Delivery Installation](#) (on page 9)

This installation process also may be automated, as described in [Automated Installation](#) (on page 10). To verify the installation is successful, see [Chapter 2: Verification](#) (on page 13).

CD-ROM Installation

To install the Relativity DBA software from the CD-ROM:

1. Start Windows.
2. Insert the product CD in the appropriate CD-ROM drive.
3. Do one of the following:
 - If the installation program starts automatically, proceed to Step 4.
 - If the installation program does not start automatically, click **Start**, and then click **Run**. In the Run dialog box, in Open, type

```
d:\autorun
```

where *d* is the drive letter of the CD-ROM drive. Click **OK**.
4. If the installation starts automatically or if you start it using the **autorun** command, click **DBA Installation** and choose from the following list of options:
 - Click the **View the README file** option to review important last-minute information about Relativity.
 - Click the **View the Installation Documentation** option to read or install the documentation for this product that is provided on the CD-ROM.
 - Click the **Install the Relativity DBA** option to begin the actual installation process.
5. Follow the instructions presented by the installation program.
6. When the Software License Agreement dialog box opens, you must click **Yes** in order to continue with the installation.

7. When the Liant License File dialog box opens, enter the complete filename of the license file, **liant.lic**, which contains the license certificate for this product. (This license file is included on the license diskette that came as part of the installation media.) If your machine has a diskette drive, insert the license diskette into drive A and continue to follow the instructions presented on your screen.

Note 1 If you are using a drive other than A, be sure to correct the location of the license file in the Liant License File dialog box.

Note 2 If necessary, the **liant.lic** license file can be copied to a location on a hard drive and that location can be specified during installation.

8. When the Choose Destination Location dialog box opens, note that the Destination Folder box indicates the location on your hard drive where Relativity will be installed.
9. When the Select Program Folder dialog box opens, specify the program folder name that will appear on the Windows Start menu.
10. When the Setup Complete dialog box opens, select the check box to register your product online or click **Finish** to close the dialog box.

Electronic Software Delivery Installation

Note You must have an Internet connection and an Internet browser installed to proceed with this method of installation.

The Relativity DBA is available as a download from the Liant Electronic Software Delivery website in two formats: ISO CD Image and Windows Self-Extracting EXE. Simply follow the instructions on the website for downloading and decompressing the file for the format selected.

- **ISO CD Image.** The download format for ISO CD Image contains the full product. Use CD-ROM Burning software, such as Nero (<http://www.nero.com>) or Roxio's Easy CD Creator (<http://www.roxio.com>), to create the physical CD-ROM media and then follow the instructions contained in the **CD-ROM installation** (on page 8) section to install your product.
- **Windows Self-Extracting EXE.** The download format for Windows Self-Extracting EXE does *not* contain a full product. In order to reduce the size of the download file, the AutoPlay and Adobe Reader software, normally available on the CD, are not present. Furthermore, the Relativity installation guides are included in the deliverable download file but not the installation script to install these guides. The installation guides, formatted as PDF files, can be installed simply by copying them to the desired location.

After the deliverable has been downloaded and uncompressed, and the installation components have been created from the Windows Self-Extracting EXE format, follow the instructions below to install the Relativity DBA software:

1. Start Windows.
2. Click **Start**, and then click **Run**. In the Run dialog box, click the **Browse** button.
3. In the Browse dialog box, navigate to the directory containing the installation components and open the **DBA** directory.
4. Click on the file, **Setup**, and then click **Open**.

5. In the Run dialog box, click **OK**.
6. Follow the instructions presented on the installation dialog boxes.
7. When the Software License Agreement dialog box opens, you must click **Yes** in order to continue with the installation.
8. When the Liant License File dialog box opens, enter the complete filename of the license file, **liant.lic**, which contains the license certificate for this product. (The license file was attached to the original electronic software delivery e-mail.)
9. When the Choose Destination Location dialog box opens, note that the Destination Folder box indicates the location on your hard drive where Relativity will be installed.
10. When the Select Program Folder dialog box opens, specify the program folder name that will appear on the Windows Start menu.
11. When the Setup Complete dialog box opens, select the check box to register your product online or click **Finish** to close the dialog box.

Automated Installation

You can also automate the installation program for the Relativity DBA, which allows the installation of the DBA to be incorporated with the installation of your product. To automate the installation, use a set of options that predefine answers to the installation prompts. The predefined answers are supplied on the command line to the **setup** command. You can also configure the installation procedures not to prompt for questions at all.

The following set of command line options can be used to change the initial default values for the installation prompts presented to the user. Note that the **-_AUTO** option is used to prevent any prompting by the Relativity DBA installation program. In order for the calling installation program to wait for the DBA installation program, you must add the **-SMS** option as the very last option on the command line. This option allows the calling installation program to determine when the Relativity DBA installation program completes.

Note Option values that contain spaces must be enclosed in quotes (“ ”) or square brackets ([]).

- **-_AUTO=Y**. This option specifies automatic installation without prompting. The default is to prompt the user during installation.
- **-_FOLDER=*folder***. This option specifies *folder* as the folder for icons. The default is Relativity.
- **-_LICENSE=*license file***. This option specifies that *license file* is the location of the license file. The default is A:\liant.lic.

Note If necessary, the **liant.lic** license file can be copied to a location on a hard drive and that location can be specified during installation.

- **-_ORG=*organization***. This option specifies *organization* as the name of the user’s organization. The default is blank.
- **-SMS**. This option, which allows the calling installation program to determine when the Relativity DBA installation program completes, must be entered as the last option on the command line.

- **-_TARGETDIR=directory.** This option specifies *directory* as the installation directory. The default is C:\Program Files\Relativity.
- **-_USERNAME=user name.** This option specifies *user name* as the name of the user installing the DBA. The default is blank.

Note The default values for most of these options are generally sufficient. However, the **-_LICENSE** option is particularly useful in order to specify another location for the license file other than the diskette drive.

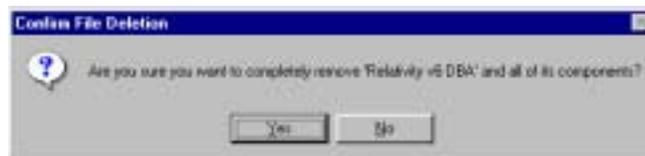
Removing the Relativity DBA

The Relativity DBA can be removed from the Windows workstation on which it was installed. This may be necessary if the Relativity DBA is to be moved to a different machine or if a new release of the Relativity DBA is to be installed on the same machine.

Removing an existing version of the Relativity DBA prior to installing a new one ensures accurate use counts on shared files and enables all files to be properly removed during a later uninstall process.

To remove the Relativity DBA:

1. Click the **Start** button, point to **Settings**, and then click **Control Panel**.
2. Double-click **Add/Remove Programs**.
3. In the Add/Remove Programs Properties dialog box, click the **Install/Uninstall** tab.
4. In the list box, select **Relativity vX DBA** where *X* indicates the version number.
5. Click the **Add/Remove** button to proceed with the uninstall.
6. In the Confirm File Deletion message box, click **Yes** to proceed with the uninstall.



The Remove Programs From Your Computer dialog box is then displayed, detailing the progress of the uninstall. When the uninstall is successfully completed, click **OK**.

7. Click **OK** to close the Add/Remove Programs Properties dialog box.
8. Close the Windows Control Panel.

Chapter 2: Verification

This chapter describes how to verify the installation of the Relativity DBA software on a Windows-based workstation. The verification takes place with a catalog that was installed during the installation of the Relativity Data Manager or Relativity Data Server, and a data source named Verify that was created during the verification of the installation of the Relativity Data Manager or Relativity Data Server and Data Client products.

Methodology

The Relativity DBA is used by the System Administrator to maintain the linkages between table definitions and physical COBOL files.

If the Relativity DBA has been properly installed, you will be able to view the existing table connection for the BackOrder table in the sample Verify database.

Relativity must know the physical access name information for the COBOL file that contains the actual data. The table connection consists of two important items:

- The path name (that is, the physical filename) of a COBOL data file.
- The table name by which SQL statements can reference the data in the file.

Relativity distinguishes between the name of a table definition and the actual SQL table name. Physical files that share the same COBOL file definition may be described by one Relativity table definition. The table name within the table connection is what an ODBC-enabled application actually “perceives” as a relational table.

Prerequisites

This verification process assumes the following:

- If you are using the client/server version of Relativity, that you have followed the instructions in the *Relativity Client/Server Installation Guide* (for either UNIX or Windows, as appropriate) to install a Relativity Data Server, set up a server data source named Verify, install a Relativity Data Client on the same

machine as the Relativity DBA, and set up a client data source that is also named Verify and associate it with the server data source, Verify.

- If you are using the single-tier (that is, non-client/server) version of Relativity, that you have installed a Relativity Data Manager on the same machine as the Relativity DBA and followed the instructions in the *Relativity Data Manager Installation Guide* for setting up a data source named Verify.

Starting the Relativity DBA

To start the Relativity DBA in Windows:

1. Click **Start**, point to **Programs**, point to **Relativity**, and then click **DBA**.

The Welcome to Relativity window is displayed and you are ready to open the Verify data source.



Note The Welcome to Relativity window appears when you first install and start the Relativity DBA. From this window, you can set up and create a new data source, or open an existing or recently used Relativity data source. After completing the first session with Relativity, the most recently used data source is always selected by default in this window when you start Relativity again. To disable the Welcome to Relativity window after the initial installation, clear the Show Welcome at Startup check box. Subsequently, when you start another Relativity session, you will begin all operations in the Relativity DBA main window. You may, however, enable this capability again by choosing Welcome from the Tools menu.

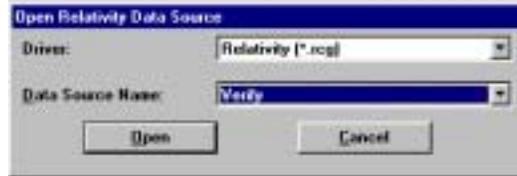
2. If you wish, click **Cancel** to dismiss the Welcome to Relativity window.

Opening a Data Source

To open the Verify data source:

1. In the Relativity DBA main window, on the File menu, click **Open Data Source**.

The Open Relativity Data Source dialog box opens.



Alternatively, if the Welcome to Relativity window remains displayed, click the **Open existing data source** option, select the Verify data source from the list, and click **OK**. Proceed to Step 3.

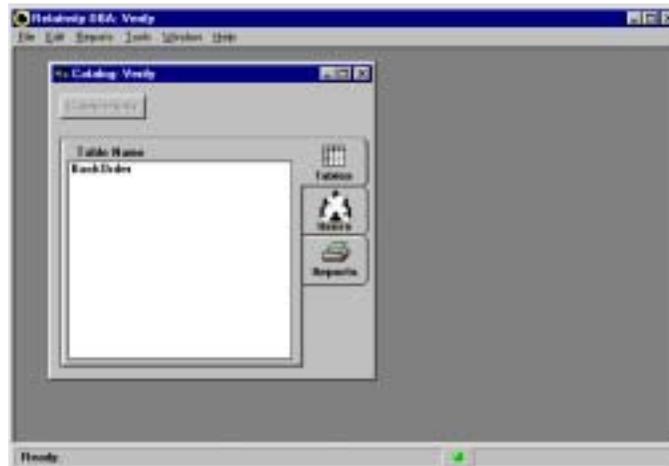
2. In the **Data Source Name** box, select **Verify**. If necessary, click the Down Arrow to display a list of data source names.
3. Click **Open**.

The Logon dialog box opens to collect information needed in order to authenticate your access to the server.



4. In the Logon dialog box, type a user name in the appropriate box and click **OK**. (Because security has not been set up to access the Verify data source, any user name will suffice and no password is required.)

The Catalog window for the selected data source, Verify, is displayed in the Relativity DBA main window.



Viewing a Table Connection

1. In the Relativity DBA main window, on the Edit menu, click **Connections**.

The Edit Connections form is displayed.



Alternatively, select the table name on the Tables tab in the Catalog window and click the **Connections** button. When you use this method, the table definition is already expanded to display the table connection in the Edit Connections form, as described in Step 2.

2. In the Edit Connections form, expand the table definition and display the table connection associated with the table definition:
 - a. Click the plus sign [+] preceding the table definition to display the table name, BackOrder.
 - b. Click the plus sign preceding the table name to display the path name, PROD2FIL.



The Edit Connections form shows the existing table connection (that is, the table name and the path name) for the BackOrder table, which indicates that the Relativity DBA has been installed correctly.

Using Online Help

The Relativity DBA Help file is the fundamental online reference for the Relativity DBA. It is designed to help you learn and use the product.

You can access the Relativity DBA Help file in several ways:

- In the Relativity DBA main window, from the Help menu, click **Contents** to display a list of Help topics. You can use the tabs in the Help Topics dialog box to search for information:
 - To browse through topics grouped by subject: Click the **Contents** tab. From here, you can go directly to information that is more specific and to a list of all the Help topics by double-clicking any closed book icon. Then select the topic of interest from the expanded list and click the **Display** button. (Alternately, you can double-click the topic.) The Help window for that topic appears.
 - To see a list of alphabetized index entries (or keywords): Click the **Index** tab. The online index is arranged just like a book index. Click the Index tab to find specific topics listed alphabetically. Type an entry or the first few letters of the word you want to search for, or scroll through the list. Then select the topic and click the Display button.
 - To search for words or phrases that may be contained in a Help topic: Click the **Find** tab. Follow the instructions on your screen to complete this task.
- In the Relativity DBA main window, from the Help menu, click **Search for Help On** to display the Index tab of the Help Topics dialog box. Here you can search for topics that contain a specific term or phrase.
- While you are working in Relativity, you also can press **F1** to access the Help topic for the specific task at hand or currently selected item in the window or dialog box. (This is called context-sensitive Help.)
- If available, click a **Help** button in a dialog box. A Help topic window is displayed.

From the Help menu, you can also access additional online Help files:

- Click **DBMS Help File** for information on using the Relativity Data Manager.
- Click **Server Admin Help File** for information on using the Relativity Server Administrator.

Closing the Data Source

To close a data source, do one of the following:



- On the File menu, click **Close Data Source**. Shortcut: Ctrl+D.
- In the Catalog window, click **Close** in the upper-right corner of the title bar.

When you close a data source, the Relativity DBA main window remains open, allowing you to reopen the data source, open another data source, or exit the Relativity DBA.

Exiting the Relativity DBA

To exit the Relativity DBA, do one of the following:



- On the File menu, click **Exit**. Shortcut: Ctrl+F4.
- In the Relativity DBA main window, click **Close** in the upper-right corner of the title bar.