MICRO FOCUS

Micro Focus
Relativity DBA

Installation

Contents

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 1), 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) 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 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 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.

- **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 in the JDBC directory of the Relativity Java Client Electronic Product Delivery download file and 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.** An online HTML 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, the Relativity Configuration Utility, and the Server Administrator. For more details, see .

- **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.

- **RM-Install Program User's Reference.** A document that describes how to configure and control the installations of RM/COBOL products, including Relativity.

Using Online Help

The Relativity DBA comes with extensive online assistance and step-by-step instructions. You can access DBA Help while using Relativity in a number of ways. The method you use often depends on the type of information for which you are searching.

- **Help Contents.** In the Relativity DBA main window, from the **Help** menu, click **Contents** to open the Relativity DBA online HTML Help system. The left side of the Help window (the navigational pane) contains the **Contents**, **Index**, **Search**, and **Favorites** tabs. The right side of the Help window (the topic pane) displays the currently selected Help topic. Across the top of the Help window is a group of buttons that help you navigate through the Help contents and perform other operations, such as printing a topic in the Help file.

  - **To browse through topics grouped by subject:** Click the **Contents** tab. From here, you can go directly to more specific information and 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 topic. The Help window for that topic appears in the topic pane.

  - **To see a list of alphabetized index entries (or keywords):** Click the **Index** tab to find specific topics listed alphabetically (the online index is arranged just like a book index). 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** command button. The content of the Help topic opens in the Help window.

  - **To search for words or phrases that may be contained in a Help topic:** Click the **Search** tab. Follow the instructions on your screen to complete this task.

  - **To create a list of preferred Help topics:** Click the **Favorites** tab. Follow the instructions on your screen to complete this task. Note that, by default, the contents of this tab is empty until you select topics to populate it. The content of the Favorites tab is automatically saved between sessions.

- **Context-sensitive Help.** While you are working in Relativity, you also can press **F1** to access the associated Help topic for currently selected menu commands, toolbar buttons, dialog box options, and other screen elements.

- **Tool tips.** When you pause with the pointer (without the mouse button pressed) over an item on a toolbar, a small pop-up window that includes a brief description is displayed.

- **Help button in a dialog box.** If available, click the **Help** button in the dialog box you are using. A Help topic explaining the dialog box appears.

You can exit Relativity online Help from the Help window by clicking the **Close** button on the title bar or double-clicking the **Control Menu** icon at the left end of the title bar. To exit a context-sensitive Help window, if necessary, press the **Esc** key on the keyboard.

From the Relativity DBA 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.

- Click **Relativity Configuration Help** for information on using the Relativity Configuration Utility to set options that apply to all Relativity data sources.

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, and dialog box, window, and form titles.
Bold	Menu, command, and button names.
	Other elements to be selected or typed to accomplish an action.
	Label on input media used during installation.
Italic	Reference to a topic in the current document or another Relativity document.
	Reference to another document.
	Emphasis.
Bold Italic	Variables.

Technical Support

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

Technical support services are subject to Micro Focus'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, there is free support available on the Micro Focus Community Forum: community.microfocus.com

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.

- Micro Focus Relativity product serial number (found in the Electronic Product Delivery email, or in the License Certificate).

- Micro Focus Relativity product version number.

- Operating system and version number.

- Hardware, and related equipment.

- 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 Micro Focus 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. **Relativity catalog.** We require a Relativity catalog file that demonstrates the problem.

4. **Data files required by the programs.** These files should be as small as possible to reproduce the problem described in the test case.

Contact information

Our Web site gives up-to-date details of contact numbers and addresses.

Additional technical information or advice is available from several sources.

The product support pages contain considerable additional information, including the WebSync service, where you can download fixes and documentation updates. To connect, enter http://www.microfocus.com in your browser to go to the Micro Focus home page.

If you are a Micro Focus SupportLine customer, please see your SupportLine Handbook for contact information. You can download it from our Web site or order it in printed form from your sales representative. Support from Micro Focus may be available only to customers who have maintenance agreements.

You may want to check these URLs in particular:

- https://www.microfocus.com/products/relativity/ (trial software download and Micro Focus Community files)

- https://www.microfocus.com/support-and-services/documentation/ (documentation updates and PDFs)

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 , 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	An IBM PC or compatible machine with a Pentium-class processor or higher.
Operating System	Windows XP, Windows 7, or higher.
Memory	2 GB 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.
Monitor	800 x 600 resolution is required. Higher resolution is recommended.
Internet Browser	A browser (for example, Mozilla Firefox or Microsoft Internet Explorer) capable of viewing HTML files, such as the README text or other documents that are available in this format.
Adobe Reader	This software, available free from Adobe.com, allows you to view (and print) the Portable Document Format (PDF) documents.

Installing the Relativity DBA

Note If you have a previous version of Relativity installed, you should remove it prior to installing a newer version. See Removing the Relativity DBA (on page 13).

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

- Installing from Self-Extracting Executable (see page 12)

- Installing from CD-ROM Media (see page 11)

You may also automate the installation program for the Relativity DBA, which allows the installation of the DBA to be incorporated with the installation of your application. For more information, navigate to www.microfocus.com/documentation/rm-cobol/ and refer to the "Relativity DBA Installation Details" section of the *RM-Install Program User's Reference* documentation.

To verify that the installation is successful, see Chapter 2: Verification (on page 15).

Note The instructions that follow refer to an installation components directory, which is the directory to which the deliverable file via electronic product delivery was downloaded and decompressed.

Electronic Product Delivery Installation

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

All Relativity orders generate an Electronic Product Delivery (EPD) email that contains links to download the product. It also contains a link to download the product's License Certificate (also called the license file) for the order, which will be necessary to install the product. Finally, there are instructions about how to decompress the download file and begin the installation. This section will elaborate on the process of downloading the order and preparing to install the product.

All Relativity EDP orders contain links to download the product as a CD-ROM image, in the form of a compressed .iso file, and links to download a smaller installation, in the form of a self-extracting compressed file. And you can also elect to have a physical CD-ROM shipped to you. (You can also use a CD-ROM burner drive to create your own physical CD-ROM using the .iso file, if you do not wish to wait for it to be shipped.) The CD-ROM (both .iso and physical) contains installation files for all the supported platforms. The smaller self-extracting compressed file version contains the installation for only the platform purchased by the order.

(Although using the CD-ROM image is not common, this section will cover it, for sake of completeness.)

The process begins with the arrival of a Micro Focus Electronic Product Delivery email which was generated when your order was complete. There is a link in this email on which to click to browse to the Electronic Product Delivery website. Once you have clicked on that link, a login page will appear in your browser. Use this page to login with your Micro Focus account. There will be an individual Invoice line for each item in your order. Locate the invoice line for the *Relativity DBA*, and click on the + in the left hand column. The invoice line will expand, displaying three tabs: **Software/Licenses**, **Documentation**, and **Legal Information**, with **Legal Information** selected. After you review the End User License Agreement in the Legal

Information tab, click on the checkbox in **Step 2** at the beginning of the email. (This is necessary to acknowledge the acceptance of the End User License Agreement. You will not be able to proceed until the checkbox has been checked.) Next, select the **Software/License** tab and click on the + to the left of the serial number. You will then be presented with the lines for downloading the complete CD-ROM image (ISO), for downloading a smaller self-extracting installation file, and for downloading the license key.

At a minimum, click on the "here" in "Please click here to download your license key" to obtain the License Certificate file. This will download the certificate file on your browser's download directory with the name **liant-*xx-nnnn-nnnnn*-ID*nnnnnn*.lic**. Copy this file to a safe place in case you need to install the product again, and place it in an easily accessible location on the target machine.

The next two sections deal with downloading, decompressing, and installing the desired installation media.

Installing from CD-ROM Media

If you elected to receive physical media, insert the media into the machine's CD-ROM drive and close the drive. Windows will automatically detect the media's presence and mount it. If the machine is configured for AutoPlay, the RM-Install program will begin running and start the installation. If the machine is not configured for AutoPlay, open a Windows Explorer window. In the left hand pane, under **Computer**, locate the entry for the CD-ROM drive (it should have the volume name **RMRelativity12*xx***), and right-click on it. In the pop-up menu, select **RM Install**. Proceed to the **Installing the Relativity DBA** section below.

If you elected to download the compressed .iso file, it will be compressed using gzip and will need to be decompressed before installation, although the Chrome browser may decompress it automatically. (Click on the **Documentation** tab in your EDP order to obtain up to date details on this process. Use the "Installation Guide to Installing an ISO Image" instructions.) The downloaded file will have a name similar to **rmrelativity12*xx*.igz**.

Note: The following instructions assume that the gzip utility has been installed on the machine and is in your PATH. (If the following instructions are unclear to you, please use the Installing from Self-Extracting Executable option below.)

From the Start menu, open a Command Prompt window, change directory to the directory where the .igz was downloaded, and rename the file's extension from .igz to iso.gz.

```
ren rmrelativity12xx.igz rmrelativity12xx.iso.gz
```

Then decompress the file with the command:

```
gunzip rmrelativity12xx.iso.gz
```

If this command results in an error, then the .igz file has already been decompressed by the browser, in which case, all that needs to be done is rename the file without the .gz extension.

```
ren rmrelativity12xx.iso.gz rmrelativity12xx.iso
```

An .iso file is useful for burning a CD with the Relativity installation. Use the .iso image burning feature included with Windows 10 or later, or third-party CD-ROM Burning software, such as Nero (http://www.nero.com) or Roxio's Easy CD Creator (http://www.roxio.com), to create physical media.

On Windows 10 and later, to create physical media, open a file explorer window on the folder that contains the .iso image file, then right-click on the file and select **Burn Disk Image** from the menu and follow the directions. (Note that **Burn Disk Image** is not the same as burning a CD with the .iso file on it.)

After you create a CD, return to the instructions at the beginning of this section for how to start the installation.

Alternatively, on Windows 10, .iso files can also be mounted as a virtual CD. Simply open Windows Explorer, navigate to the directory containing the .iso file. Right click on the .iso file and select **Mount** from the pop-up menu. This may be done with Windows 7, but additional software will need to be installed first, such as Virtual CloneDrive.

After the .iso file has been mounted, return to the instructions at the beginning of this section for how to start the installation.

Installing from Self-Extracting Executable

The most common case is to use the .exe file download. When downloaded, the file will have a name similar to **rmrelativity12xx_dba_win_32.exe**. (Where 12*xx* is the version of Relativity.) If it is not there already, copy the .exe file to the target Windows machine. Then double click on the .exe to start the installation. The file will be decompressed into a temporary directory on the target machine, and the RM-Install program automatically started. Proceed to the **Installing the Relativity DBA** section below.

Installing the Relativity DBA

At this point in the installation:

- The License Certificate file has been downloaded from the EDP order and is available on the target machine.

- You have the CD-ROM (or .iso file) mounted and RM-Install is running, or you have executed the Self-Extracting Executable, it has extracted itself into a temporary directory, and RM-Install is running.

Next, follow the instructions below to install the Relativity DBA software.

1. Follow the instructions presented on the pages of RM-Install and press the **Next** or **Back** button to advance through the various pages.

2. On the **Software License Agreement** page, you must click "I accept the terms in the license agreement" in order to continue with the installation.

3. On the **License Certificates** page, the license certificate file for the product being installed is displayed. Do one of the following:

- If the license certificate for the Relativity DBA software being installed is present in the list area, press the **Next** button.

- If the license certificate for the Relativity DBA software being installed is *not* present in the list area:

    a. Press the **Add** button.

    b. In the **Select License Certificates** dialog box, navigate to the directory containing the License Certificate file for the Relativity DBA software being installed and select the filename for the license certificate. (This license file is downloaded from the EDP page for the order.)

    c. Press the **Open** button and then press **Next**.

4. On the Installation Type page, do one of the following:

    - Select the **Standard Installation** option to install all the components of all the license certificates listed on the **License Certificates** page immediately, using their default settings. Press the **Install** button.

    - Select the **Custom Installation** option to select specific components (for those products with multiple components) of all the license certificates listed on the **License Certificates** page, and install them, changing their default installation settings, as necessary.

        Follow the custom installation instructions presented on the remaining pages. On the **Ready to Begin Installations** page, press the **Install** button.

        When the installation for the Relativity DBA program starts, follow the additional instructions presented by the installation program.

5. When either the standard or custom installation is complete, click the **Finished** button on the **Installation Status** page.

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.

To remove the Relativity DBA:

1. Open the Windows Control Panel.

2. In the Control Panel, do one of the following:

    - On Windows XP, double-click **Add or Remove Programs**.

    - On Windows 7 or Server 2008, double-click **Programs and Features**.

3. In either the Add or Remove Programs window or the Programs and Features window, select **RM Relativity v12.xx DBA** from the list of currently installed programs and updates, where *xx* is the version number of the product to be removed.

4. Do one of the following to start the uninstall process:

    - On XP, click the **Remove** button.

    - On Windows 7 or Server 2008, click the **Uninstall** button.

5. In the message box, click **Yes** to proceed with the uninstall process.

6. The RM Relativity v12*xx* DBA dialog box is then displayed, detailing the progress of the Uninstall.

   When the Uninstall is successfully completed, click **OK**.

7. Click **OK** to close either the Add or Remove Programs window or the Programs and Features window.

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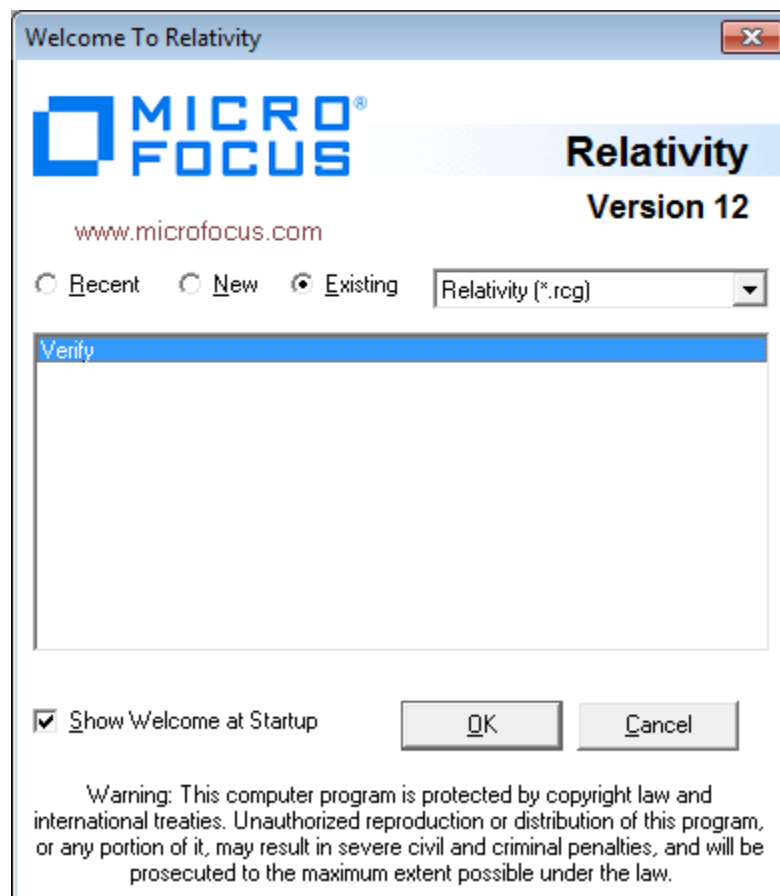
- If you are using the single-tier (that is, non-client/server) version of Relativity, that you have installed a Relativity Data Manager on the same machine as the Relativity DBA and followed the instructions in the *Relativity Data Manager Installation Guide* for setting up a data source named **Verify**.

Starting the Relativity DBA

To start the Relativity DBA in Windows:

1. Click **Start**, point to **All Programs**, point to **RMCOBOL**, point to **Relativity v12**, 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.
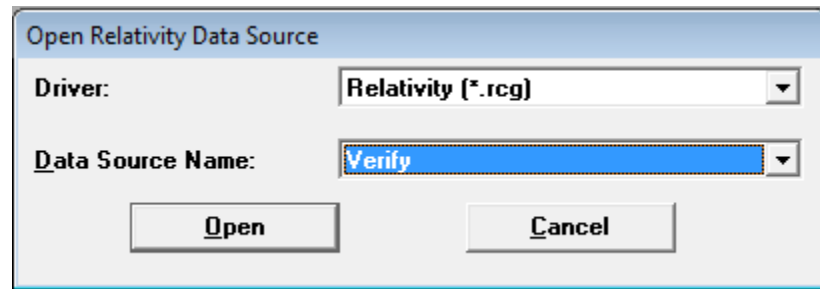
2. If you wish, click **Cancel** to dismiss the **Welcome to Relativity** window.

Opening a Data Source

To open the Verify data source:

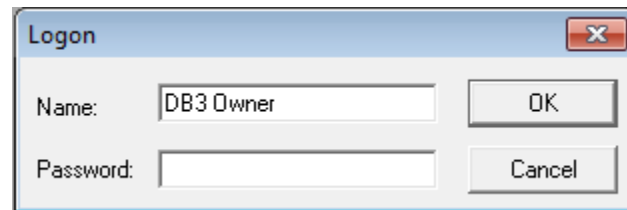1. In the Relativity DBA main window, on the File menu, click **Open Data Source**.

   The Open Relativity Data Source dialog box opens.

   Alternatively, if the Welcome to Relativity window remains displayed, click either the **Recent or Existing** option, select the **Verify** data source from the list, and then click **OK**. Proceed to Step 3.
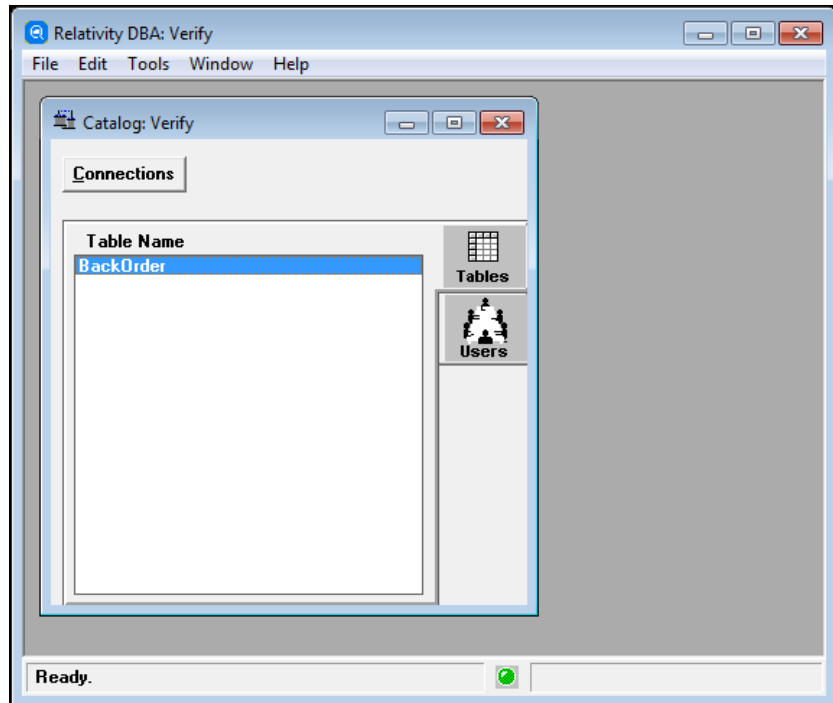
2. In the **Data Source Name** box, select **Verify**. If necessary, click the Down Arrow to display a list of data source names.

3. Click **Open**.

   The Logon dialog box opens to collect information needed in order to authenticate your access to the data source.
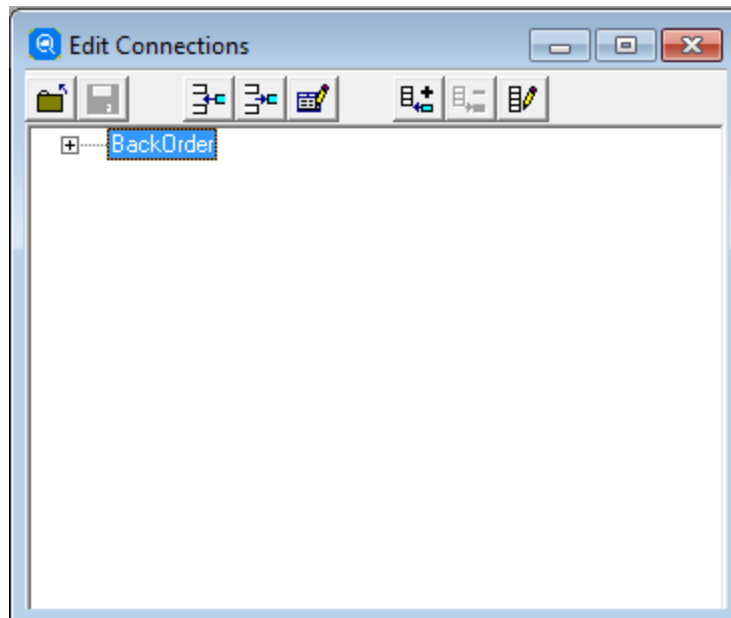
4. In the Logon dialog box, type a user name in the appropriate box and click **OK**. (Because security has not been established to access the Verify data source, any user name will suffice and no password is required.)

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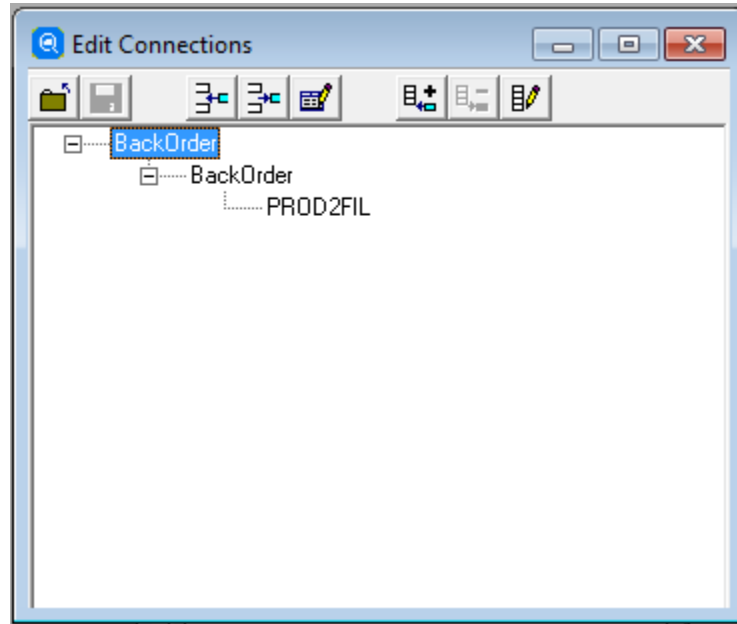
Viewing a Table Connection

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.

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.