



SequeLink[®]

Installation Guide

June 2003

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The reason behind this being stated in this direct manner is past
experience in code simply being copied and the attribution removed
from it and then being distributed as part of other packages. This
implementation was a non-trivial and unpaid effort.

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Preface

This book is your guide to installing DataDirect® SequeLink® 5.4 from DataDirect Technologies. Read on to find out more about your SequeLink environment and how to use this book.

What Is DataDirect SequeLink?

DataDirect SequeLink is a middleware product that provides point-to-point connections from client to server for the latest data access standards, including Open Database Connectivity (ODBC), JDBC, ActiveX Data Objects (ADO), and ADO.NET.

Using This Book

This book assumes that you are familiar with your operating system and its commands; the concept of directories; the management of user accounts and security access; and your network protocol and its configuration.

This book contains the following information:

- [Chapter 1 “Before You Install” on page 19](#) describes information that you should know before you install SequeLink, such as product requirements. It also provides CD mounting instructions for your platform.

- [Chapter 2 “Installing SequeLink Server” on page 33](#) provides installation instructions for SequeLink Server, including instructions for installing the SequeLink Manager on the same SequeLink server.
- [Chapter 3 “Installing the SequeLink Manager” on page 101](#) provides installation instructions for the SequeLink Manager on a networked client.
- [Chapter 4 “Installing the ODBC Client” on page 105](#) provides installation instructions for the SequeLink *for* ODBC Client.
- [Chapter 5 “Installing the ADO Client” on page 123](#) provides installation instructions for the SequeLink *for* ADO Client.
- [Chapter 6 “Installing the JDBC Client” on page 133](#) provides installation instructions for the SequeLink *for* JDBC Client.
- [Chapter 7 “Installing the .NET Client” on page 145](#) provides installation instructions for the SequeLink *for* .NET Client.
- [Chapter 8 “Installing and Viewing Online Books” on page 153](#) provides installation instructions for the SequeLink documentation.

NOTE: This book refers the reader to Web URLs for more information about specific topics, including Web URLs not maintained by DataDirect Technologies. Because it is the nature of Web content to change frequently, DataDirect Technologies can guarantee only that the URLs referenced in this book were correct at the time of publishing.

SequeLink Documentation

The following table provides a guide for finding information in your SequeLink documentation:

For information about...	Go to...
SequeLink concepts and planning your SequeLink environment	<i>Getting Started with SequeLink</i>
Installing the SequeLink middleware components	<i>SequeLink Installation Guide</i>
Administering your SequeLink environment	<i>SequeLink Administrator's Guide</i>
Developing ODBC, ADO, JDBC, and .NET applications for the SequeLink environment	<i>SequeLink Developer's Reference</i>
Troubleshooting and referencing error messages	<i>SequeLink Troubleshooting Guide and Reference</i>

SequeLink documentation is provided on your DataDirect CD in PDF format, which allows you to view it online or print it. You can view the SequeLink online documentation using Adobe Acrobat Reader. The DataDirect CD includes Acrobat Reader 5.x with Search for Windows, and Acrobat Reader 4.x with Search for UNIX. SequeLink product documentation is also available on the DataDirect Technologies Web site:

http://www.datadirect-technologies.com/techres/proddoc_product.asp

On Windows and UNIX, you can choose to install the online books on your system. When installed, they are located in the books directory that is created beneath the SequeLink installation directory.

When you install the JDBC, .NET, or ODBC Client, HTML-based online help for developing applications is placed by default in the help directory that is created beneath the SequeLink installation directory. To access help, you must have Internet Explorer 5.x or higher, or Netscape 4.x or higher, installed. (Netscape 6.0. does not support the help system; however, 6.1 or higher does.) After you have opened the main screen of the help system in your browser (as described below), you can bookmark it in the browser for quick access later.



On Windows platforms, help is available from the setup dialog for the ODBC driver and ADO data provider. When you click **Help**, your browser will open to the correct topic. There are three navigation buttons at the left end of the grey menu bar at the top of the help screen. Clicking the left-hand button displays the table of contents and the index for the entire help system in the left pane. After the left pane is displayed, clicking the left-hand button synchronizes the contents of the right-hand pane with its location in the table of contents. The next two buttons navigate to the previous and following pages. The two buttons at the right end of the menu bar allow you print or bookmark the page. The program group for SequeLink also contains an icon for launching the help system.

There are three navigation buttons at the left end of the grey menu bar at the top of the help screen. Clicking the left-hand button synchronizes the contents of the right-hand pane with its location in the table of contents. The next two buttons navigate to the previous and following pages. The two buttons at the right end of the menu bar allow you print or bookmark the page.

Conventions Used in This Book

This section describes the typography and other conventions used in this book.

Typographical Conventions





This book uses the following typographical conventions:




Convention	Explanation
<i>italics</i>	Introduces new terms that you may not be familiar with, and is used occasionally for emphasis.
bold	Emphasizes important information. Also indicates button, menu, and icon names on which you can act. For example, click Next .
UPPERCASE	Indicates the name of a file. For operating environments that use case-sensitive file names, the correct capitalization is used in information specific to those environments. Also indicates keys or key combinations that you can use. For example, press ENTER.
monospace	Indicates syntax examples, values that you specify, or results that you receive.
<i>monospaced italics</i>	Indicates names that are placeholders for values you specify; for example, <i>filename</i> .
forward slash /	Separates menus and their associated commands. For example, Select File / Copy means to select Copy from the File menu.
vertical rule	Indicates an OR separator to delineate items.
brackets []	Indicates optional items. For example, in the following statement: SELECT [DISTINCT], DISTINCT is an optional keyword.

Convention	Explanation
braces { }	Indicates that you must select one item. For example, {yes no} means you must specify either yes or no.
ellipsis . . .	Indicates that the immediately preceding item can be repeated any number of times in succession. An ellipsis following a closing bracket indicates that all information in that unit can be repeated.

Environment-Specific Information

This book supports users of various operating environments. Where it provides information that does not apply to all supported environments, the following symbols are used to identify that information:

Symbol	Environment
	<i>Windows.</i> Information specific to the Microsoft Windows 98, Windows Me, Windows NT, Windows 2000, and Windows XP environments is identified by the Windows symbol.
	<i>Windows NT.</i> Information specific to the Microsoft Windows NT environment is identified by the Windows symbol and the letters NT.
	<i>Windows 200x.</i> Information specific to the Microsoft Windows 2000 and Windows 2003 environment is identified by the Windows symbol and the characters 200x.
	<i>Windows XP.</i> Information specific to the Microsoft Windows XP environment is identified by the Windows symbol and the letters XP.

Symbol	Environment
	<i>Windows Client.</i> Information specific to the Microsoft Windows platforms on which SequeLink Client runs is identified by the Windows symbol and the word Client.
	<i>Windows Servers.</i> Information specific to the Microsoft Windows platforms on which SequeLink Server runs is identified by the Windows symbol and the word Server.
	<i>UNIX.</i> Information specific to UNIX environments is identified by this symbol, which applies to all supported UNIX environments. UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Ltd.
z/OS	<i>z/OS.</i> Information specific to OS/390 and z/OS environments is identified by the characters z/OS.

Contacting Technical Support

DataDirect Technologies provides technical support for registered users of this product, including limited installation support, for the first 30 days. Register online for your SupportLink user ID and password for access to the password-protected areas of the SupportLink web site at http://www.datadirect-technologies.com/support/support_index.asp. Your user ID and password are issued to you by email upon registration.

For post-installation support, contact us using one of the methods listed below or purchase further support by enrolling in the SupportLink program. For more information about SupportLink, contact your sales representative.

The DataDirect Technologies web site provides the latest support information through SupportLink Online, our global service network providing access to support contact details, tools, and valuable information. Our SupportLink users access information using the web and automatic email notification. SupportLink Online includes a knowledge base so you can search on keywords for technical bulletins and other information.

World Wide Web

http://www.datadirect-technologies.com/support/support_index.asp

E-Mail

USA, Canada, and Mexico	supportlink@datadirect-technologies.com
Europe, Middle East, and Africa	int.supportlink@datadirect-technologies.com
Japan	jpn.answerline@datadirect.co.jp
All other countries	http://www.datadirect-technologies.com/contactus/distributor.asp provides a list of the correct e-mail contacts.

Local Telephone Support

Local phone numbers can be found at:

http://www.datadirect-technologies.com/support/support_contact_aline.asp

SupportLink support is available 24 hours a day, seven days a week.

Fax Information

Fax US, Mexico, and Canada	1 919 461 4527
Fax EMEA	+32 (0) 15 32 09 19

When you contact us, please provide the following information:

- The **product serial number** or a case number. If you do not have a SupportLink contract, we will ask you to speak with a sales representative.
- Your **name and organization**. For a first-time call, you may be asked for full customer information, including location and contact details.
- The **version number** of your DataDirect product.
- The type and version of your **operating system**.
- Any **third-party software or other environment information** required to understand the problem.
- A **brief description of the problem**, including any error messages you have received, **and the steps preceding the occurrence of the problem**. Depending on the complexity of the problem, you may be asked to submit an example so that we can recreate the problem.
- An assessment of the **severity level** of the problem.

1 Before You Install

This chapter describes information that you should know before you install SequeLink, such as product requirements. It also provides CD mounting instructions for your platform.

NOTE: SequeLink 5.4 Servers are compatible with SequeLink 5.x Clients. Similarly, SequeLink 5.4 Clients are compatible with SequeLink 5.x Servers. Only SequeLink 5.4 services can be configured, managed, or monitored with the SequeLink Manager 5.4.

Product Requirements

This section lists the product requirements for:

- SequeLink Server
- SequeLink *for* ODBC Client
- SequeLink *for* ADO Client
- SequeLink *for* JDBC Client
- SequeLink *for* .NET Client
- SequeLink Manager Snap-in

For the latest information about the operating system platforms supported for each SequeLink component, go to the following Web URLs:

For SequeLink Servers:

<http://www.datadirect-technologies.com/techres/doc-matrix//sl/SLWebMatrixOSVendorView.htm>

For SequeLink Clients:

<http://www.datadirect-technologies.com/techres/sl/doc-matrix/SLWebMatrixClients.htm>

SequeLink Server

The following requirements apply to all SequeLink Servers. In addition, see product-specific information for the following SequeLink Servers:

- [“SequeLink Server for Oracle” on page 24](#)
- [“SequeLink Server for ODBC Socket” on page 25](#)

**Windows Server platforms:**

- Pentium processor-based PC.
- 32 MB of RAM recommended.
- Minimum of 35 MB of free disk space.
- MMC 1.1 or higher (you can download this software from the Microsoft Web site).
- SequeLink Server for SQL Server and SequeLink Socket Server: MDAC 2.6 Service Pack 1 or higher.

UNIX:

- CD-ROM drive on your UNIX server, or a Windows 98, Windows Me, Windows NT, Windows 2000, Windows Server 2003, or Windows XP Professional machine with a CD-ROM drive and file transfer capability to a supported UNIX server.
- TCP/IP.

- Korn shell (this requirement applies to Linux, which by default is not shipped with a Korn shell.)
- SequeLink Server for ODBC Socket: ODBC Driver Manager and a configured ODBC data source.

OS/390:

- The amount of disk space that is required depends on the disk type. The minimum required is 500 tracks for a 3390 device (or equivalent), excluding space for primary and secondary log files. The size of log files depends on system use.
- IBM TCP/IP for OS/390 V3R7 or higher.
- UNIX System Services support, which allows the SequeLink Server to access a Hierarchical File System (HFS) for writing session debug files.
- RRS must have been configured to support the DB2 RRSAF attachment required by the Threadpool connection model of the SequeLink Server.
- The SAS/C runtime libraries are installed with SequeLink Server.
- Any SAF-compliant security system product, including:
 - IBM RACF V2R1 or higher
 - Computer Associates CA-ACF2 6.0 or higher
 - Computer Associates CA-TOP SECRET

NOTE: Make sure that your security system supports SAF RACROUTE macros.

Database Requirements:



Table 1-1 lists the databases supported by SequeLink Server on Windows and their requirements.

Table 1-1. Databases Supported by SequeLink Server on Windows

Database	Database Requirements
DB2 V7.2 and V8.1	For V7.2, fixpack 8 must be installed.
Informix Dynamic Server 9.2, 9.3, and 9.4 (Informix Dynamic Server 9.2 is also known as Informix 2000)	<p>For Informix, Informix Client SDK 2.70 must be installed. To determine if it has been installed, check the Windows registry for the following key:</p> <p>HKEY_LOCAL_MACHINE\SOFTWARE\Informix Software, Inc.\INFORMIX-Connect\2.70</p> <p>If this key exists, Informix Client SDK 2.70 is installed.</p>
Microsoft SQL Server 7.0 and 2000	If you want to use the Microsoft Distributed Transaction Coordinator (MS DTC) or Java Transaction API (JTA) with your Windows server, the Distributed Transaction Coordinator service must be started.
Oracle 8.0.6, 8i, and 9i	<p>By default, SequeLink Server for Oracle uses the Oracle Bequeath protocol to communicate to the Oracle database engine.</p> <p>However, on UNIX, we strongly recommend that you configure the SequeLink Oracle service to use the Oracle Net Service (IPC or TCP protocol) instead. See “SequeLink Server for Oracle” on page 24 for more information.</p>
Sybase Adaptive Server 11.9.2, 12.0, and 12.5	For Sybase 12.5, if you want to use the Microsoft Distributed Transaction Coordinator (MS DTC) or Java Transaction API (JTA) with your Windows server, Sybase 12 must be installed and configured with the ASE 12 DTM Option.



Table 1-2 lists the databases supported by SequeLink Server on UNIX and their requirements.

Table 1-2. Databases Supported by SequeLink on UNIX

Database	Database Requirements
DB2 V7.2 and V8.1	For V7.2, fixpack 8 must be installed.
Informix Dynamic Server 9.2, 9.3, and 9.4 (Informix Dynamic Server 9.2 is also known as Informix 2000)	For Informix, Informix Client SDK 2.70 must be installed. To determine if it has been installed, check the version of the Informix Client SDK in the following file: <i>INFORMIXDIR</i> /release/en_us/0333/CLIENTREL.TXT where <i>INFORMIXDIR</i> is the <i>INFORMIXDIR</i> environment variable. If this file does not exist, the Informix Client SDK is not installed.
Oracle 8.0.6, 8i, and 9i	None.
Sybase Adaptive Server 11.9.2, 12.0, and 12.5	None.



SequeLink Server for Oracle

The default for SequeLink Server for Oracle is to use the Oracle Bequeath protocol to communicate to the Oracle database engine. However, on UNIX, we strongly recommend that during installation, you select the Oracle Net Service instead. If you accept the default driver during installation and later want to use the TCP or IPC protocol through Oracle Net Service, you can change the configuration.

To use the Oracle Net Service:

- 1** Configure the Oracle listener for Net Service (refer to your Oracle documentation for instructions).
- 2** Configure the SequeLink Oracle service to use the Oracle Net Service. Using the SequeLink Manager, add the SequeLink service attribute `ServiceEnvironmentVariable` to your SequeLink Oracle service and set it to `ServiceEnvironmentVariable=Two_Task=NetServiceName`, where *NetServiceName* is the Oracle Net service name you configured in Step 1.
- 3** If the SequeLink service attribute `ServiceEnvironmentVariable=ORACLE_SID=OracleSid` exists for this SequeLink service, delete it.
- 4** Restart the SequeLink Oracle service.

SequeLink Server for ODBC Socket

SequeLink Server for ODBC Socket allows ODBC, ADO, JDBC, and .NET applications to connect to any database for which an ODBC 3.0 or 2.0-compliant driver is available.

To use SequeLink Server for ODBC Socket:

- 1 Configure an ODBC system data source for an ODBC 2.0 or higher driver (refer to the documentation for the driver for instructions on configuring and testing the connection to the data store).
- 2 If the driver did not come with a Driver Manager, install a Driver Manager.
- 3 Install the SequeLink Client.
- 4 On Windows: Install SequeLink Server for ODBC Socket. When prompted, supply the connection string for the data source that you created in [Step 1](#).

On UNIX: Install SequeLink Server for ODBC Socket. When prompted, supply the connection string for the data source that you created in [Step 1](#) and the name of the library that contains the driver. Depending on the ODBC driver used, you might be prompted to set additional environment variables.

- 5 Test your SequeLink environment by establishing a connection between the SequeLink Client and the SequeLink Server.

If you installed the ODBC Client or JDBC Client, you are ready to use the SequeLink Server for ODBC Socket.

If you installed ADO Client, continue to [Step 6](#).

- 6 Define values for the DataSourceProviderTypesFile and DataSourceProviderTypesSection service attributes. See [“Completing the ODBC Socket Installation for SequeLink for ADO” on page 43](#) for more information.

SequeLink *for* ODBC Client



Windows 98, Windows Me, Windows NT, Windows 2000, Windows Server 2003, and Windows XP:

- 486 or Pentium processor-based PC.
- 8 MB of RAM (Windows 98 and Windows Me), 16 MB of RAM (Windows NT, Windows 2000, Windows Server 2003, and Windows XP).
- Microsoft Data Access Components (MDAC) 2.6 Service Pack 1. You can download a utility from the following Microsoft Web site that will report your installed MDAC version:

<http://www.microsoft.com/data/download.htm#26SDKinfo>

MDAC 2.6 Service Pack 1 is shipped with SequeLink and can be found in the sqlnk54\win directory on the DataDirect CD.



UNIX:

TCP/IP is required.



SequeLink *for* ADO Client

Windows 98, Windows Me, Windows NT, Windows 2000, Windows Server 2003, and Windows XP:

- 486 or Pentium processor-based PC.
- 8 MB of RAM (Windows 98 and Windows Me), 16 MB of RAM (Windows NT, Windows 2000, Windows Server 2003, and Windows XP).
- Microsoft Data Access Components (MDAC) 2.6 Service Pack 1. You can download a utility from the following Microsoft Web site that will report your installed MDAC version.

MDAC 2.6 Service Pack 1 is shipped with SequeLink and can be found in the \sqlnk54\win directory on the DataDirect CD.

SequeLink *for* JDBC Client

You can develop for applications for SequeLink *for* JDBC Client using JDK 1.2 and the following APIs, which are supplied with SequeLink *for* JDBC Client:

- JDBC 2.0 Optional Package
- JNDI 1.2
- JTA 1.0.1

[Table 1-3](#) lists the product requirements for using SequeLink *for* JDBC Client.

Table 1-3. Product Requirements for SequeLink *for* JDBC Client

For applications using...	Minimum Product Requirements
JDBC 3.0 API	JDK 1.4
JCA API	JDK 1.2 and J2EE 1.3
JDBC 2.0 Optional Package. Note that some components have specific requirements:	JDK 1.2 and J2EE 1.2 <i>or</i> JDK 1.4
■ XDataSource	■ JDK 1.2 and J2EE 1.2
■ DataSource, ConnectionPoolDataSource	■ JDK 1.2 and J2EE 1.2 <i>or</i> JDK 1.4
JDBC 2.0 API	JDK 1.2

SequeLink *for* .NET Client



Windows 98, Windows Me, Windows NT, Windows 2000, Windows Server 2003, and Windows XP:

- 486 or Pentium processor-based PC.
- 8 MB of RAM (Windows 98 and Windows Me), 14 MB of RAM (Windows NT, Windows 2000, Windows Server 2003, and Windows XP).
- Microsoft .NET Framework Redistributable 1.1 or higher, available for download on the Microsoft Web site.

All components should be compatible with .NET applications built to run on the Windows versions listed.

If you want to use distributed transactions, you must install COM+ Services, which include the Microsoft Distributed Transaction Coordinator (MS DTC).

SequeLink Manager Snap-in

The following list describes the product requirements for the SequeLink Manager Snap-in:



- Windows NT, Windows 2000, Windows Server 2003, or Windows XP
- Pentium processor-based PC
- 3 MB of RAM
- MMC 1.1 or higher (you can download this software from the Microsoft Web site)

Mounting Your DataDirect Technologies SequeLink CD

This section provides CD mounting instructions for your SequeLink platform.

Windows

The supported Windows platforms provide the system option AutoPlay for CDs as a default feature. If enabled, the Product Setup starts immediately when you insert the CD in the CD-ROM drive.

If AutoPlay for CDs is disabled, or you are mounting the CD on a network drive:

- 1 Insert the CD into the CD-ROM drive (for a local driver, this typically is drive D). If the CD-ROM drive is on a network, mount the CD and create a mapping to the CD-ROM drive.
- 2 To view the contents of the CD, double-click the CD-ROM drive icon in the My Computer window.



On Solaris, by default the CD-Rom drive mounts automatically when you insert the CD. The other UNIX platforms supported do not automatically mount the CD by default. If your workstation is not configured to mount a CD automatically, you must enter the command for mounting the CD.

HP-UX

```
# /usr/sbin/pfs_mountd&
# /usr/sbin/pfsd&
# pfs_mount -o xlat=unix /dev/rdisk/deviceName
/cdrom
```

where *deviceName* is the device name assigned to your CD-ROM drive. The device name can be found using the HP-UX tool *sam*. When installation is complete, unmount the CD-ROM with the command:

```
# /usr/sbin/pfs_umount /cdrom
```

For example, if the device name for your CD-ROM drive is */dev/rdisk/c0t4d0*, and you want to mount it over the directory */cdrom*, you would enter the following command:

```
# pfs_mount -o xlat=unix /dev/rdisk/c0t4d0 /cdrom
```

IBM-AIX

```
mount -r -v cdrfs /dev/device /cdrom
```

where *device* is the device name assigned to your CD-ROM drive. The device name can be found using the AIX tool *smit*.

For example:

```
mount -r -v cdrfs /dev/cd0 /cdrom
```

Linux

```
# mount -r -t iso9660 /dev/device /mnt/cdrom
```

where *device* is the device name assigned to your CD-ROM drive.

TRU64 (OSF/1)

- 1 Log on your UNIX machine.
- 2 If you do not know the device name for the CD-ROM drive, use the following command to find it:

```
file /dev/rrz*c
```

The entry for the CD-ROM drive includes the words RRD42 disk. On a DEC 3000 Model 500 processor, the logical unit number for the CD-ROM drive is usually rz4.

- 3 Mount the CD with the following command, substituting the unit number of your CD-ROM drive for *unit*:

```
mount -r -t cdfs -o noversion /dev/rzunitc /cdrom
```

Read the README File

Read the SequeLink README text file for late-breaking information about SequeLink.

2 Installing SequeLink Server

This chapter provides installation instructions for SequeLink Server, including instructions for installing the SequeLink Manager on the same SequeLink Server. See [Chapter 3 “Installing the SequeLink Manager” on page 101](#) for information about installing the SequeLink Manager on a networked client.



The Unicode version of the SequeLink Server is automatically installed during SequeLink Server installation. For information on configuring SequeLink Server, refer to the *SequeLink Administrator's Guide*.

Installing SequeLink Server on a Windows Server Platform



PREREQUISITE: You must have administrator privileges to install SequeLink Server on Windows NT, Windows 200x, and Windows XP. See [“SequeLink Server” on page 20](#) for database prerequisites.

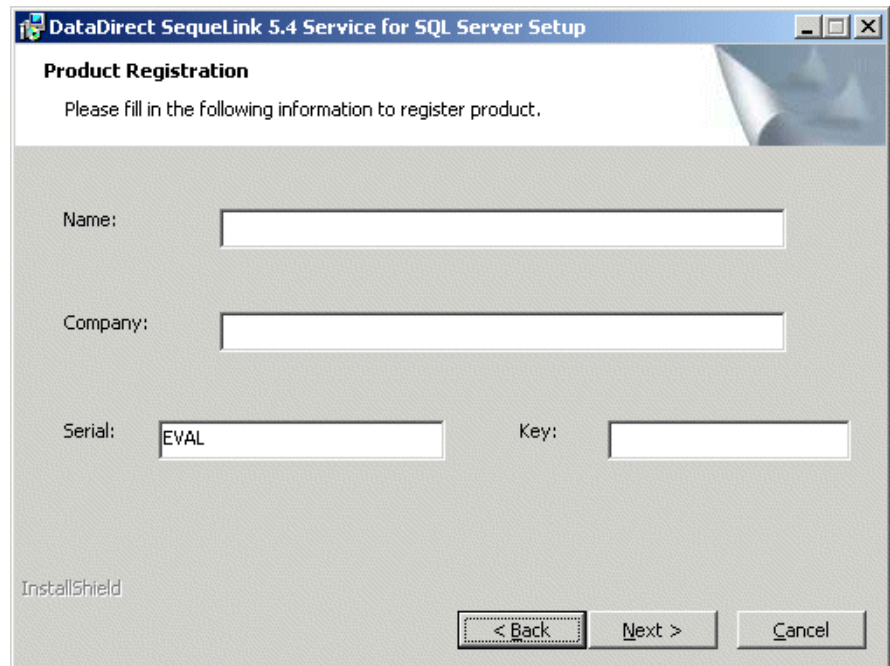
The SequeLink Server installer on the supported Windows platforms requires the Microsoft Windows Installer service. If the SequeLink Server installer detects that the service is not installed on your machine, or that an older version is installed, a message is displayed. After installing the Microsoft Windows Installer service, you might need to restart your machine. Then you can install.

To start the SequeLink Server installer:

- **If installing from the DataDirect CD,** insert the CD into the CD-ROM drive. If you have a local CD-ROM drive, this typically is drive D. If the CD-ROM drive is on a network, mount the CD and create a mapping to the CD-ROM drive. Then, perform one of the following actions:
 - If AutoPlay for CDs is enabled and you have a browser, the main installer window displays automatically. Select the product that you want to install; then, follow the instructions to install the product.
 - If AutoPlay for CDs is not enabled, or you do not have a browser, use Windows Explorer to navigate from the root directory of the CD to the folder for the product you want to install. Then, double-click **setup.exe**.
- **If installing from files downloaded from the Web,** follow the instructions on the DataDirect Technologies Web site to download the appropriate self-extracting ZIP file. Open the contents of the ZIP file into a directory (for example: C:\temp). Then, navigate to the directory containing the unzipped files and double-click **setup.exe** to start the installer.

Installing SequeLink Server

- 1 Start the appropriate SequeLink Server installer. When the Welcome window appears, click **Next** to continue.
- 2 On the License Agreement window, perform one of the following actions:
 - Accept the agreement by clicking the appropriate option. Then, click **Next**.
 - Do not accept the agreement by clicking **Cancel** to exit the installation.
- 3 The Product Registration window appears prompting you for product registration information.



The screenshot shows a Windows-style dialog box titled "DataDirect SequeLink 5.4 Service for SQL Server Setup". The main heading is "Product Registration". Below the heading, it says "Please fill in the following information to register product." There are three input fields: "Name:" (empty), "Company:" (empty), and "Serial:" (containing "EVAL"). To the right of the "Serial:" field is a "Key:" field (empty). At the bottom left, it says "InstallShield". At the bottom right, there are three buttons: "< Back", "Next >", and "Cancel".

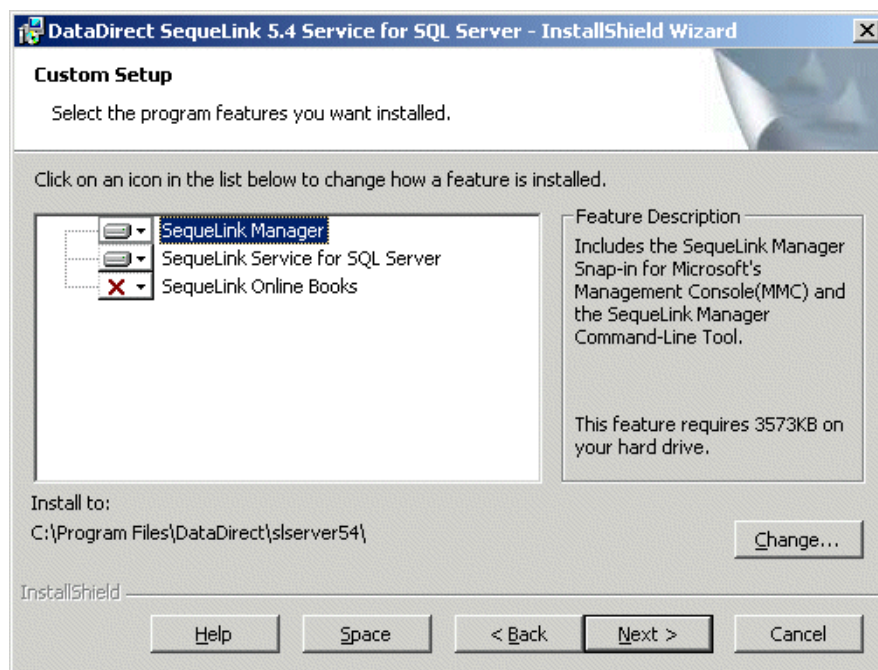
Type your name and your company name in the appropriate fields. Then, perform one of the following actions:

- If you are installing a *licensed* product, type the serial number and key provided to you by DataDirect Technologies.
- If you are installing an *evaluation* product, type `EVAL` in the Serial field and leave the Key field empty.

When you are finished, click **Next**.

If you chose to install an evaluation product, a message appears confirming the length of the evaluation period. Click **OK** to continue.

- 4 The Custom Setup window appears. Choose your installation options.



- a Click one or multiple component icons to select the components to install. When you select a component, a description of the component appears in the Feature Description box.
- b To change the installation directory, click **Change**. A window appears allowing you to browse and select an installation directory.

When you are satisfied with your settings, click **Next**.

NOTE: Multiple SequeLink Servers can be installed on the same machine; however, if you want to install them in the same directory, the SequeLink Servers must be different service types. For example, you can install SequeLink Server for Oracle and SequeLink Server for Microsoft SQL Server in the same directory.

- If you are installing SequeLink Server for Informix, continue with [Step 5 on page 38](#).
- Otherwise, continue with [Step 6 on page 39](#).

- 5 If you are installing SequeLink Server for Informix, the Informix Server Settings window appears, prompting you for information about your Informix installation.

DataDirect SequeLink 5.4 Service for Informix - Setup

Informix Server Settings

Setup accessed your INFORMIX installation and proposes the following values as INFORMIX environment variables. Do you want to use these values for this SequeLink installation? If not, you can change them here.

CLIENT_LOCALE	en_us.8859-1	INFORMIXSERVER	
DB_LOCALE	en_us.8859-1	INFORMIXDIR	
HOST	NC-BETSYK	SERVICE	

InstallShield

< Back Next > Cancel

Provide the following Informix information, then click **Next**:

CLIENT_LOCALE: Type the value of the CLIENTLOCALE environment variable.

DB_LOCALE: Type the value of the DBLOCALE environment variable.

HOST: Type the value of the INFORMIXHOST environment variable.

INFORMIXSERVER: Type the value of the INFORMIXSERVER environment variable.

INFORMIXDIR: Type the value of the INFORMIXDIR environment variable.

SERVICE: Type the value of the SERVICE network parameter.

NOTE: Valid values for the fields on this window can be determined using the Informix tool Setnet32, which can be accessed from the Informix program group.

Continue with [Step 6 on page 39](#).

- 6 The next window prompts you for the server names and TCP/IP ports to be used by the SequeLink Server. The SequeLink Agent allows the SequeLink administrator to configure, manage, and monitor this SequeLink Server using the SequeLink Manager.

DataDirect SequeLink 5.4 Service for SQL Server - InstallShield Wizard

Setup will install and configure this SequeLink Server with the following settings.

Name for SL Agent:

Port for SL Agent:

Name for SL Server:

Port for SL Server:

Please enter the user account name which will be allowed to administer this SequeLink Server.

Name:

< Back Next > Cancel

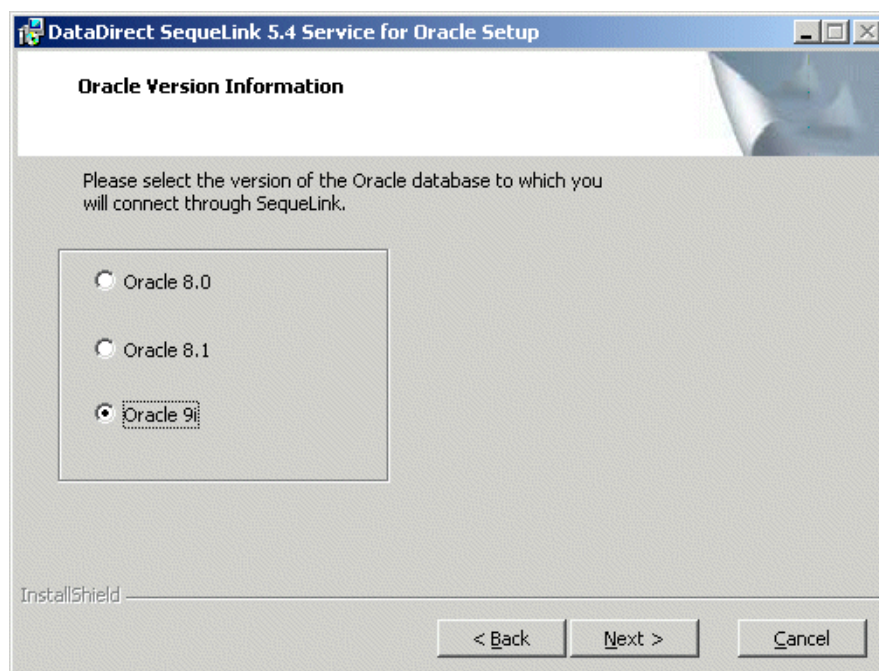
NOTE: The service names and TCP/IP ports must be unique (not used by another service). If you do not specify a unique service name or a unique TCP/IP port, the installation will fail. No software will be installed.

NOTE: If you are installing a different SequeLink Server service type in the same directory as an existing SequeLink Server, the same SequeLink Agent and SequeLink administrator account will be used; you will only be

prompted for the service name and TCP/IP port of the SequeLink Server you are installing. Before proceeding, we recommend that you use the SequeLink Manager to stop any running SequeLink services and SequeLink Agent.

If you are installing:

- SequeLink Server for Oracle, skip to [Step 7 on page 40](#).
 - SequeLink Server for Sybase, skip to [Step 8 on page 41](#)
 - SequeLink Server for ODBC Socket, skip to [Step 9 on page 42](#)
 - SequeLink Server for SQL Server, skip to [Step 10 on page 43](#).
- 7 If you are installing SequeLink Server for Oracle, the Oracle Version Information window appears, requiring you to select your Oracle version.

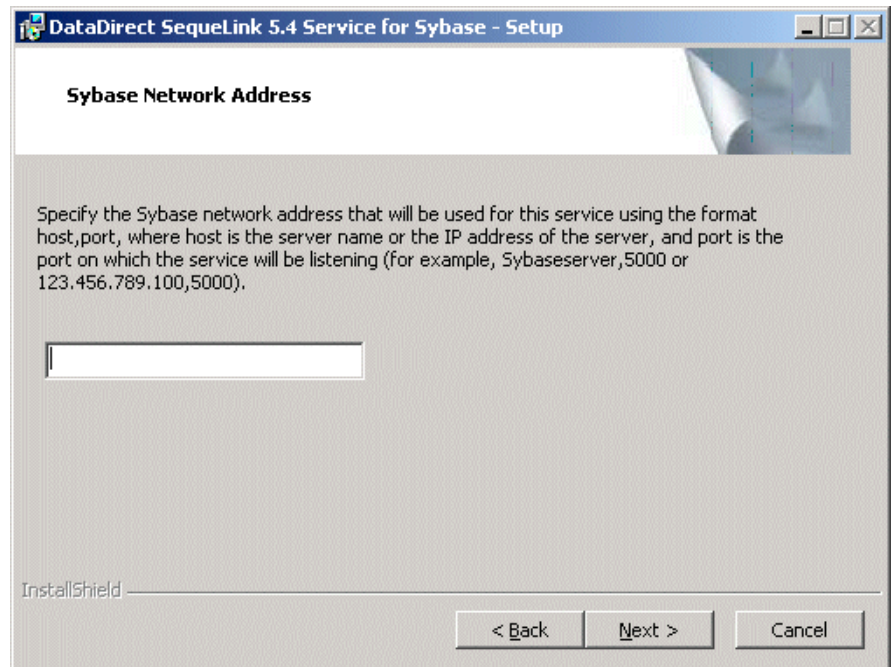


Select your Oracle version (Oracle 8.0, Oracle 8.1, or Oracle 9i) by selecting the appropriate option, and click **OK**.

NOTE: If you select the incorrect version of Oracle, you will receive an error when you try to start the SequeLink for Oracle service.

Continue with [Step 10 on page 43](#).

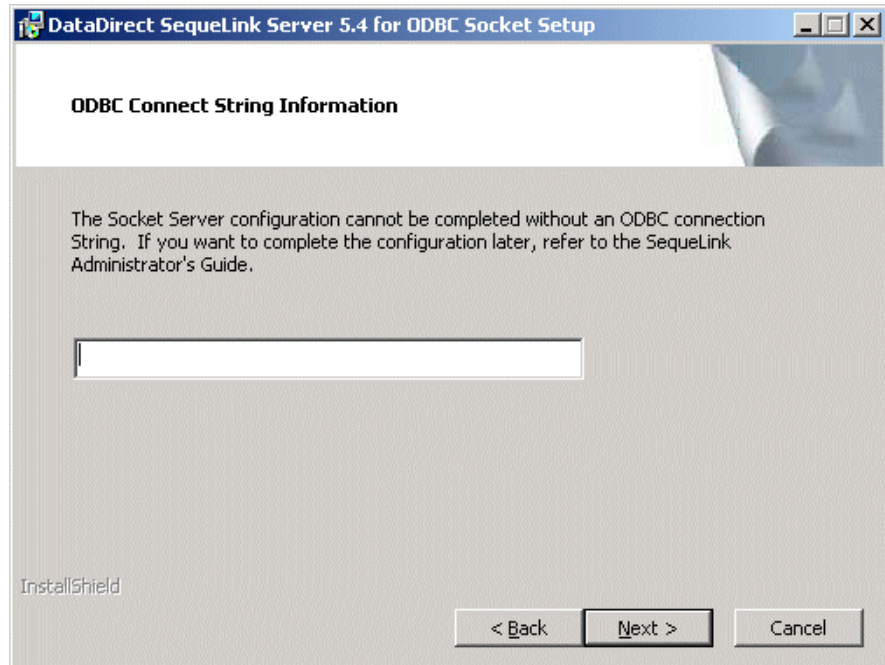
- 8 If you are installing SequeLink Server for Sybase, the Sybase Network Address window appears, prompting you for the network address of the Sybase database.



Specify the network address of the Sybase database. Then, click **Next** to continue.

Continue with [Step 10 on page 43](#).

- 9 If you are installing SequeLink Server for ODBC Socket, the ODBC Connect String Information window appears, prompting you for a connection string for the ODBC system data source that connects to this service, for example, DSN=Accounting.



If you leave this field empty during installation, you must configure the DataSourceSOCODBCConnStr service attribute before you can use SequeLink Server for ODBC Socket. For instructions on configuring SequeLink Server for ODBC Socket, refer to the *SequeLink Administrator's Guide*.

NOTE: If you will be connecting to the SequeLink Server for ODBC Socket with an ADO Client, you must configure the DataSourceProviderTypesFile and DataSourceProviderTypesSection service attributes. See [“Completing the ODBC Socket Installation for SequeLink for](#)

[ADO” on page 43](#) for instructions on how to configure these attributes.

Click **Next** to continue.

- 10 The Ready to Install the Program window appears, allowing you to go back and review your choices before proceeding. If you are ready to install, click **Install**.

If the installer encounters any Windows registration errors, it will not install SequeLink Server and will display a message that tells you to examine the installation log file SLSERVER.LOG (see [“Installation Log File” on page 51](#)). The installation is rolled back and no software is installed.

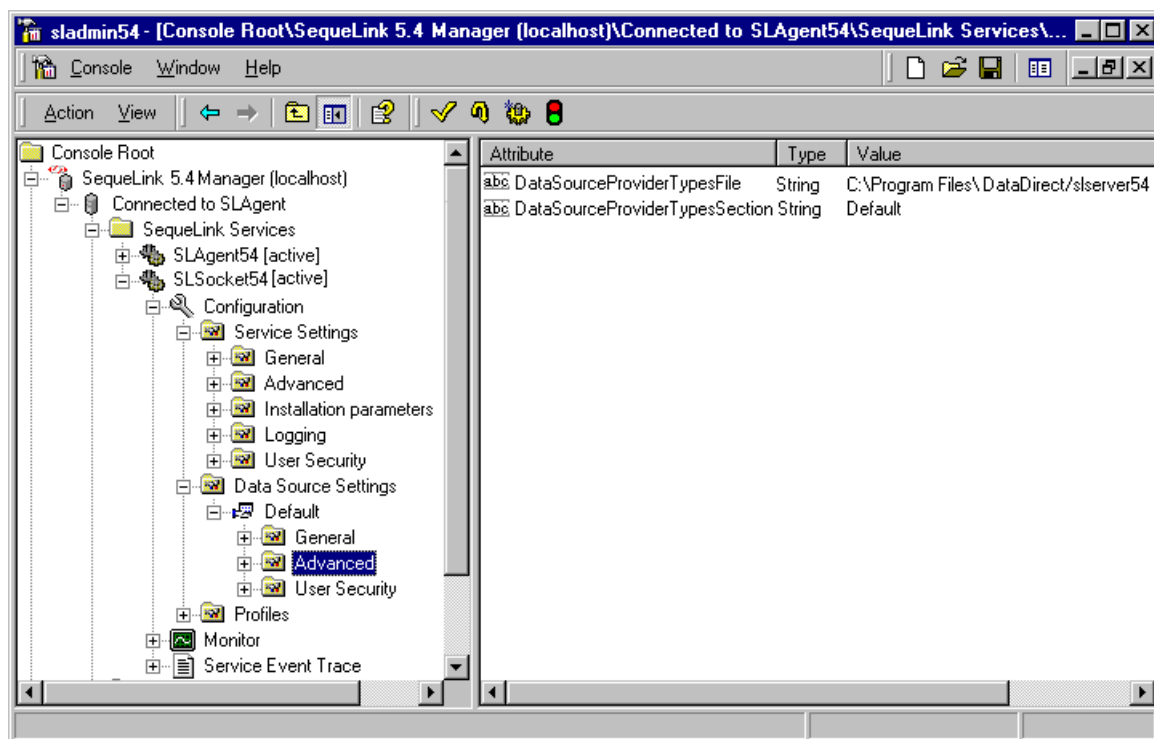
- 11 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.
- 12 Test your SequeLink environment by establishing a connection between the SequeLink Client and the SequeLink Server. For instructions on testing your SequeLink environment, refer to the *SequeLink Administrator’s Guide*.

Completing the ODBC Socket Installation for SequeLink for ADO

- 1 From the SequeLink Manager Snap-in, select **SequeLink 5.4 Manager**. For detailed instructions on starting the MMC and working with the SequeLink Manager Snap-in, refer to the *SequeLink Administrator’s Guide*.
- 2 Select the SequeLink Agent for ODBC Socket.
- 3 Select **SequeLink Services**.
- 4 Select **SLSocket54**.
- 5 Select **Configuration**.
- 6 Select **Data Source Settings**.

7 Select **Default**.

8 Select **Advanced**. The service attributes are displayed.



9 Right-click the **DataSourceProviderTypesFile** service attribute, and select **Properties**. The Properties window appears.

10 In the Value field, type `\install_dir\bin\swsoc.ini`, where *install_dir* is the SequeLink installation directory.

11 Click **OK**. The attribute is changed.

12 Right-click the **DataSourceProviderTypesSection** service attribute, and select **Properties**. The Properties window appears.

13 In the Value field, type the name of the section of the ProviderTypes file that will contain the data type information for the provider. For example, if you are connecting to an Oracle database, you might type `Oracle` in this field.

14 Click **OK**. The attribute is changed.

15 Save the configuration.

Silent Installations



The SequeLink Server installer provides a command-line option for silent installations on Windows NT, Windows 200x, and Windows XP. For example, if you want to install a licensed copy of the SequeLink Server for SQL Server in an installation directory named `\Program Files\DataDirect\SequeLink\SQL_Server`, you would use the following command:

```
setup /s /v"NAME=\"John Doe\" COMPANY=\"My Company\"
SERIAL=123456789012 KEY=12345678
INSTALLDIR=\"C:\Program Files\DataDirect\SequeLink\
SQL_Server\" SLACCOUNTNAME=DDTEK\susank /qn /l*v
C:\temp\SLSERVER.LOG"
```

Silent installations are useful for system administrators who want to create a batch file to execute multiple identical installations of SequeLink Server.

To install SequeLink Server silently:

- 1 Using a command-line, change to the directory containing the SETUP.EXE file for the SequeLink Server you want to install, or ensure that this directory is on your path. Type the command:

```
setup /s /v"arguments /qn /l*v path\log"
```

See ["Command-Line Syntax" on page 47](#) for an explanation of the syntax rules. See [Table 2-1](#) for an explanation of each command-line parameter. See [Table 2-2](#) and [Table 2-3](#) for an explanation of the arguments that follow the /v parameter.

- 2 The installation proceeds without any further user intervention or notification. You must consult the log that is created during the installation (see ["Installation Log File" on page 51](#)) to determine whether the installation was successful and, if it failed, why it failed. Have this log available if you contact DataDirect Technologies for technical support.

To uninstall SequeLink Server silently:

Using a command line, change to the directory containing the SETUP.EXE file for the SequeLink Server you want to uninstall, or ensure that this directory is on your path. Type the command:

```
setup /s /x /v"REMOVE=ALL /qn /l*v path\log"
```

Then, press ENTER. The SequeLink Server is removed without requiring any further interaction.

NOTE: Make sure the SequeLink service is stopped before uninstalling.

Command-Line Syntax

In general, there must be a space between all command-line parameters and between each argument. The exception is that there cannot be a space between `/v` and the double quotation mark that follows it. There can be multiple arguments and parameters specified between the opening and closing double quotation marks, but each one must be separated by a space. The arguments are case-sensitive.

IMPORTANT: When any of the command-line parameters include an item that contains a space, that item must be preceded and followed by the escape character `\`. For example:

```
INSTALLDIR="C:\Program Files\DataDirect\slserver54"

and

/l*v "C:\log dir\log.txt"
```

Parameters and Arguments

[Table 2-1](#) describes each command-line parameter. See [Table 2-2](#) and [Table 2-3](#) for the required and optional arguments that follow the `/v` parameter. All arguments are case-sensitive.

Table 2-1. Silent Installation Parameters

Parameter	Description
<code>/s</code>	Instructs the installer to perform a silent installation.
<code>/x</code>	Instructs the installer to uninstall silently.
<code>/v"arguments parameters"</code>	Passes arguments to the installer; the <code>v</code> must not be followed by a space. The arguments and following parameters must be enclosed between quotation marks (<code>"</code>). See Table 2-2 and Table 2-3 for a description of the required and optional arguments that follow the <code>/v</code> parameter.

Table 2-1. Silent Installation Parameters (cont.)

Parameter	Description
/qn	Additional parameter required to perform a silent installation.
/l*v path\name	Instructs the installer to create a log file of the installation. The v must be followed by a space, and then, by the path where you want the log file created, as well as the name of the log file. The directory you specify for the log file must exist. If you specify a directory that does not exist, the installation fails.

Table 2-2 lists the required arguments that follow the /v parameter. Arguments that are required for all SequeLink services are listed first, followed by required arguments that are service-specific. All arguments are case-sensitive. See Table 2-3 on page 50 for optional arguments.

Table 2-2. Required Silent Installation Arguments

Argument	Description
All SequeLink Servers	
COMPANY= <i>company name</i>	Provide your company name. If your company name includes spaces, the name must be preceded and followed by the escape character \".
INSTALLDIR= <i>installation directory</i>	Provide the directory name where you want to install SequeLink Server. If this path contains spaces, you must use escape characters, as explained in "Command-Line Syntax" on page 47.
KEY= <i>key value</i> \""	Provide the license key for your purchased product or type KEY= \"\" to install an evaluation product.

Table 2-2. Required Silent Installation Arguments (cont.)

Argument	Description
NAME= <i>user name</i>	Provide your name. If your user name includes spaces, the name must be preceded and followed by the escape character \".
REMOVE =ALL	Provide to uninstall SequeLink Server.
SERIAL= <i>serial number value</i>	Provide the serial number for your purchased product or enter EVAL to install an evaluation product.
SLACCOUNTNAME= <i>Administrator user ID</i>	Provide the user ID of the person who is authorized to administer the SequeLink Server.
Informix (see note)	
CLIENTLOCALE= <i>clientlocale</i>	Provide the value of the CLIENTLOCALE environment variable.
DBLOCALE= <i>dblocale</i>	Provide the value of the DBLOCALE environment variable.
HOST= <i>host</i>	Provide the value of the INFORMIXHOST environment variable.
INFORMIXDIR= <i>informixdir</i>	Provide the value of the INFORMIXDIR environment variable.
INFORMIXSERVER= <i>informixserver</i>	Provide the value of the INFORMIXSERVER environment variable.
INFORMIXSERVICE= <i>informixservice</i>	Provide the value of the SERVICE network parameter.
NOTE: Valid values for Informix-specific arguments can be determined using the Informix tool Setnet32, which can be accessed from the Informix program group.	
Oracle	
SERVICE= <i>Oracle_version</i>	Provide your Oracle version. Possible values are SL5_Oracle80, SL5_Oracle81, or SL5_Oracle90.
Sybase	
NETWORK ADDRESS= <i>Sybase network address</i>	Provide the network address of the Sybase database.

Table 2-3 lists the optional arguments that follow the /v parameter. Arguments that are optional for all SequeLink services are listed first, followed by optional arguments that are service-specific. All arguments are case-sensitive.

Table 2-3. Optional Silent Installation Arguments

Argument	Description
All SequeLink Servers	
SLAGENTNAME=Agent	Provide the name of the SequeLink Agent for this service. The default is SLAgent54.
SLAGENTPORT=Port	Provide the port number of the SequeLink Agent. The default is 19995. NOTE: The TCP/IP port must be unique (not used by another service). If you do not specify a unique TCP/IP port, the installation fails.
SLSERVERNAME	Provide the service name for this service. The default depends on the SequeLink Server. NOTE: The service name must be unique (not used by another service). If you do not specify a unique service name, the installation fails.
SLSERVERPORT=Port	Provide the port number of the SequeLink service. The default is 19996. NOTE: The TCP/IP port must be unique (not used by another service). If you do not specify a unique TCP/IP port, the installation fails.

Argument	Description
SequeLink Server for ODBC Socket	
ODBCCONNSTR= <i>ODBC connection string</i>	Provide the connection string for the ODBC system data source. If you do not specify this argument, you must configure the DataSourceSOCODBCConnStr service attribute before you can use the ODBC Socket Server. For instructions on configuring SequeLink Server for ODBC Socket, refer to the <i>SequeLink Administrator's Guide</i> .

Installation Log File

If you encounter any problems during the installation, you can find details about the problem in the installation log file.

For SequeLink Server installations using the standard installation procedure as described in [“Installing SequeLink Server” on page 35](#), the SequeLink Server creates a SLSERVER.LOG file in your temporary directory (for example, C:\temp).

For silent installations as described in [“Silent Installations” on page 45](#), you must specify the path of the location of the log file and the log file name as described in [“Command-Line Syntax” on page 47](#).

The log file created during the installation can be read with a text editor or word processor. DataDirect Technologies provides technical support to help you interpret the log file if you encounter problems.

Although the log file can be very long, the most important information is at the beginning and end. For example, for silent installations, the initial lines reproduce all the command-line arguments that you entered. The final lines of the log file indicate whether the installation was successful. If a failure

occurred, examine the command-line entries to see if the syntax is correct.

Integrating SequeLink Monitoring with Windows Performance Monitoring



If you are integrating SequeLink monitoring with the Windows Performance Monitoring tool on the Windows platforms on which the SequeLink Server runs, you must explicitly set the required counters in the Windows registry. When the SequeLink Server installation finishes, the files SWEVPERF.INI and SWEVPERF.H appear in your temporary directory (for example, C:\temp). For instructions on integrating SequeLink monitoring with Windows performance monitoring, refer to the *SequeLink Administrator's Guide*.

Installing SequeLink Server on UNIX



NOTE: See [“SequeLink Server” on page 20](#) for database prerequisites.

The method you use to install SequeLink Server for UNIX depends on whether you install:

- **From a CD.** The method you use to install SequeLink Server for UNIX from a CD depends on whether your UNIX workstation has a CD-ROM drive:
 - **If your UNIX workstation has a CD-ROM drive,** see [“Installing on a Server with a CD-ROM Drive” on page 54](#).
 - **If your UNIX workstation does not have a CD-ROM drive,** you must transfer the files from another computer which has a CD-ROM drive and an FTP utility to your UNIX workstation, untar the transferred files, and run the SequeLink Server installation script. See [“Installing on a Server without a CD-ROM Drive” on page 60](#) for instructions on installing SequeLink Server on a server without a CD-ROM drive.
- **From files downloaded from Web.** You extract the downloaded file and run the SequeLink Server installation script. See [“Installing From Files Downloaded from the Web” on page 67](#) for instructions on installing SequeLink Server from downloaded files.

User Login for Installation

To install SequeLink Server, you can log on as *root* or another user. If you choose to log on as any user other than *root*, the security operating system user ID and password authentication mechanism (for example, `ServiceAdminAuthMethods=OSlogon(UID,PWD)`) will not be

supported for this SequeLink installation. For more information about authentication, refer to *Getting Started with SequeLink*.

Installing on a Server with a CD-ROM Drive

If your UNIX server has a CD-ROM drive, you can install the SequeLink Server from the DataDirect CD. When the installation completes, the installer window appears, allowing you to install another product or exit from the installer. Default answers for any questions are displayed in square brackets, []. To accept the default, press ENTER.

When you run the SequeLink Server installer, it prompts you for choices you need to make and information you need to supply. Default answers to questions are enclosed within square brackets, []. To accept the default, press ENTER.

To install SequeLink Server:

- 1 Log on to your UNIX system as *root* or another user. See [“User Login for Installation” on page 53](#) for more information.
- 2 Mount the CD. See [“Mounting Your DataDirect Technologies SequeLink CD” on page 29](#) for instructions on mounting the CD.
- 3 Change to the top-level directory on the CD.
- 4 If you logged on to your UNIX system as:
 - *root*, enter the following command:

```
ksh unixmi.ksh
```
 - Another user, enter the following command:

```
ksh unixmi.ksh -po
```

- 5 Select the SequeLink Server to install.
- 6 Verify the SequeLink Server to install (the examples in this procedure show the information that displays when you install SequeLink Server for Oracle).

You are installing the product:

```
SequeLink Server for Oracle 8.0, 8.1, or 9
Version 5.4 on Solaris 7 or higher
```

```
-----
Do you want to continue (Y/N) ? [Y]
```

Enter **Y** to continue the installation. Enter **N** to stop the installation; no software is installed.

- 7 Enter the installation directory, or press ENTER to accept the default installation directory. If the directory does not exist, it will be created for you.
- 8 Enter the UNIX account name that was used to install the database software on your machine.
- 9 Select the connection method that you want SequeLink to use to connect to the Oracle Server.

Please choose the connection method you want SequeLink to use to connect to the Oracle server.

1. Bequeath Protocol
2. Oracle Net Service: connect to the Oracle database through the Oracle listener.

Enter your choice [1]:

The default is to use the Oracle Bequeath Protocol to communicate to the Oracle database engine. However, we strongly recommend that during installation, you select the Oracle Net Service instead. If you accept the default value during installation and later want to use the Oracle Net Service, you can change the configuration.

- 10** You are prompted to confirm information about your database installation. Enter the information for which you are prompted, or press ENTER to accept the proposed values.

```
The installer accessed your current Oracle
installation and found a list of possible values for the
environment variable ORACLE_SID.
Please enter the value for the environment variable
ORACLE_SID applicable to your Oracle installation.
ora9i
Please enter a value for the ORACLE_SID variable
[ora9i]: [ora9i]
*****
```

- 11** You are prompted for information that is required to create the SequeLink Agent. The SequeLink Agent allows the SequeLink administrator to configure, manage, and monitor this SequeLink Server using the SequeLink Manager. To create a SequeLink Agent service, enter the user ID of the SequeLink administrator account, or press ENTER to accept the default.

```
Please enter the Unix account name which will be allowed
to remotely administer this SequeLink Server [root] :
```

- 12** Enter the name of the SequeLink Agent service, or press ENTER to accept the default.

```
Enter the name of this SequeLink agent service
[SLAgent] :
```

- 13** Enter the TCP/IP port that the SequeLink Agent service will use to listen for connection requests.

```
Enter the TCP/IP port for your SequeLink agent service
[19995] :
```

Enter an available unique port, or press ENTER to accept the default. The installer creates the SequeLink Agent.

NOTE: The port you choose must be unique (not used by another service). If the port you choose is not unique, the installation will fail. No software will be installed.

- 14** Enter the name of the SequeLink data access service, or press ENTER to accept the default.

Enter the name of your SequeLink Oracle service
[SLOracle90] :

- 15** Enter the TCP/IP port that the SequeLink Server will use to listen for connection requests.

Enter the TCP/IP port for this SequeLink Oracle service
[19996] :

Enter an available port, or press ENTER to accept the default.
The port you choose must not be used by another service.
The installer creates the SequeLink data access service.

- 16** Review the installation settings.

Ready to start installation with the following settings:

```
SequeLink home directory : ../slserver54
SequeLink Agent settings: Administrator : root
                        Service name : SLAgent
                        TCP/IP port: 19995
SequeLink Oracle settings : Service name : SLOracle
                        TCP/IP port : 19996
Oracle home directory : /rdbms/oracle9i
ORACLE_SID : ora9i
Link service executables : No
```

You will need approx. 40000 kBytes free disk space in your SequeLink home directory (depending on your platform and configuration.).

- 1) Start installation with these settings
- 2) Change SequeLink home directory
- 3) Change SequeLink Agent settings
- 4) Change SequeLink Oracle settings
- 5) Change Oracle home directory
- 6) Change Oracle version
- 7) Change Oracle Connection method

```
9) Abort installation
Enter your choice [1] ?
```

You can choose to continue with the installation using these settings, change any settings, or end the installation. Enter the appropriate choice, or press ENTER to start the installation with the current settings.

- 17 You are prompted for your product registration. Enter your name, company name, serial number, and key. The serial number and key are provided to you by DataDirect Technologies. If you are installing an evaluation copy of SequeLink Server, leave the Key field empty.
- 18 The installer prompts you to review the information. Enter C to change the information, or press ENTER to continue.
- 19 The license agreement is displayed. Press ENTER to advance through the license agreement. Then, enter YES to accept the license agreement or NO to decline the agreement and end the installation.
- 20 The installer prompts you to continue with the installation. Press ENTER to continue. The installer installs the files.
- 21 When the installation of the SequeLink Agent is complete, the installer prompts you to start the SequeLink Agent service.

```
-----
Starting SequeLink Agent service
-----
Would you like the installer to start the SequeLink
Agent (Y/N) ? [Y]
```

Enter Y to start the SequeLink Agent service. Enter N if you do not want to start the SequeLink Agent service at this time. You can start the SequeLink Agent at a later time.

- 22** The installer prompts you to start the SequeLink Server data access service.

Would you like the installer to start SequeLink Server for Oracle (Y/N) ? [Y]

Enter **Y** to start the SequeLink Server data access service.
Enter **N** if you do not want to start the service at this time.
You can start the SequeLink service at a later time.

- 23** The installer prompts you for the password for the user ID that you specified in [Step 11](#).

Password:

Enter the password of the SequeLink administrator account.
A message appears when SequeLink Server successfully starts and publishes itself on the TCP/IP port.

Installing on a Server without a CD-ROM Drive

Installing SequeLink Server when your server does not have a CD-ROM drive involves:

- Transferring files to your UNIX server
- Extracting the files
- Running the installation script

If your server does not have a CD-ROM drive, you can mount a CD on another computer with a CD-ROM drive and transfer the tar file in *binary* format to your server using file transfer software (for example, FTP). After the tar file is transferred or copied to your server, you must extract the files from the tar file to run the installation script.

The tar file you transfer depends on the SequeLink Server you are using. To identify the correct SequeLink Server tar file, see the following table:

SequeLink Server	Tar Files
DB2	SLDB2.TAR
Informix	SLINF.TAR
Oracle	SLORA.TAR
Sybase	SLSYB.TAR
ODBC Socket	SLSOC.TAR

Transferring SequeLink Server Files

- 1 Mount the CD on a computer with a CD-ROM drive and FTP capability. See [“Mounting Your DataDirect Technologies SequeLink CD” on page 29](#) for instructions on mounting the CD.
- 2 Log on to your UNIX system as *root* or another user. See [“User Login for Installation” on page 53](#) for more information.
- 3 If a SequeLink home directory does not exist, create a target directory on the server. For example, to create a SequeLink home directory called *sqlnk* in the *usr* directory, enter:

```
mkdir /usr/sqlnk
```

- 4 On the machine from which you will be transferring the files, change to the directory on the CD for your server platform (for example, *\sqlnk54\solaris\server*).

From this machine, transfer the appropriate tar file (in binary format) to the SequeLink home directory on the server (for example, */usr/sqlnk*).

How you transfer files from another system to the server depends on your TCP/IP product and your system's operating system. For more information about transferring files, refer to the documentation supplied with your TCP/IP product.

IMPORTANT: Transfer the tar file in binary format. If you transfer files in the wrong format, the SequeLink Server installation will fail.

Extracting SequeLink Server Files

On the server, access the tar file you transferred to the SequeLink home directory and extract it. For example, to extract the tar file for SequeLink Server for Oracle, you would enter:

```
tar -xvf SLORA.TAR
```

NOTE: On Solaris, using the -xvf argument with the tar command may cause warnings to appear; use the -xof argument instead. For example, enter:

```
tar -xof SLORA.TAR
```

Running the Installation Script

When you run the installation script, it prompts you for choices you need to make and information you need to supply. Default answers to questions are enclosed within square brackets, []. To accept the default, press ENTER.

To run the installation script:

- 1 Change to the SequeLink home directory. For example, enter:

```
cd /usr/sqlnk
```

- 2 If you logged on to your UNIX system as:

- *root*, enter the following command:

```
ksh install.sh
```

- Another user, enter the following command:

```
ksh install.sh -po
```

- 3 Select the SequeLink Server to install.

- 4 Verify the SequeLink Server to install (the examples in this procedure show the information that displays when you install SequeLink Server for Oracle).

You are installing the product:

```
SequeLink Server for Oracle 8.0, 8.1, or 9
Version 5.4 on Solaris 7 or higher
```

```
-----
```

```
Do you want to continue (Y/N) ? [Y]
```

Enter **Y** to continue the installation. Enter **N** to stop the installation; no software is installed.

- 5 Enter the installation directory, or press ENTER to accept the default installation directory. If the directory does not exist, it will be created for you.
- 6 Enter the UNIX account name that was used to install the database software on your machine.
- 7 Select the connection method that you want SequeLink to use to connect to the Oracle Server.

Please choose the connection method you want SequeLink to use to connect to the Oracle server.

1. Bequeath Protocol
2. Oracle Net Service: connect to the Oracle database through the Oracle listener.

Enter your choice [1]:

The default is to use the Oracle Bequeath Protocol to communicate to the Oracle database engine. However, we strongly recommend that during installation, you select the Oracle Net Service instead. If you accept the default value during installation and later want to use TCP or IPC protocol through the Oracle Net Service, you can change the configuration.

- 8** You are prompted to confirm information about your database installation. Enter the information for which you are prompted, or press ENTER to accept the proposed values.

The installer accessed your current Oracle installation and found a list of possible values for the environment variable ORACLE_SID.

Please enter the value for the environment variable ORACLE_SID applicable to your Oracle installation.

ora9i

Enter a value for the ORACLE_SID variable [ora9i]:

- 9** You are prompted for information that is required to create the SequeLink Agent. The SequeLink Agent allows the SequeLink administrator to configure, manage, and monitor this SequeLink Server using the SequeLink Manager. To create a SequeLink Agent service, enter the user ID of the SequeLink administrator account, or press ENTER to accept the default.

Please enter the Unix account name which will be allowed to remotely administer this SequeLink Server [root] :

- 10** Enter the name of the SequeLink Agent service, or press ENTER to accept the default.

Enter the name of this SequeLink agent service [SLAgent] :

- 11** Enter the TCP/IP port that the SequeLink Agent service will use to listen for connection requests.

Enter the TCP/IP port for your SequeLink agent service [19995] :

Enter an available unique port, or press ENTER to accept the default.

NOTE: The port you choose must be unique (not used by another service). If the port you choose is not unique, the installation will fail. No software will be installed.

The installer creates the SequeLink Agent.

- 12** Enter the name of the SequeLink data access service, or press ENTER to accept the default.

Enter the name of your SequeLink Oracle service
[SLOracle] :

- 13** Enter the TCP/IP port that the SequeLink Server will use to listen for connection requests.

Enter the TCP/IP port for this SequeLink Oracle service
[19996] :

Enter an available unique port, or press ENTER to accept the default.

NOTE: The port you choose must be unique (not used by another service). If the port you choose is not unique, the installation will fail. No software will be installed.

The installer creates the SequeLink data access service.

- 14** Review the installation settings.

Ready to start installation with the following settings:

```
SequeLink home directory : ../slserver54
SequeLink Agent settings: Administrator : root
                        Service name : SLAgent
                        TCP/IP port: 19995
SequeLink Oracle settings : Service name : SLOracle
                        TCP/IP port : 19996
Oracle home directory : /rdbms/oracle9i
ORACLE_SID : ora9i
Link service executables : No
```

You will need approx. 40000 kBytes free disk space in your SequeLink home directory (depending on your platform and configuration.).

- 1) Start installation with these settings
- 2) Change SequeLink home directory
- 3) Change SequeLink Agent settings

```

4) Change SequeLink Oracle settings
5) Change Oracle home directory
6) Change Oracle version
7) Change Oracle Connection method
9) Abort installation
Enter your choice [1] ?

```

You can choose to continue with the installation using these settings, change any settings, or end the installation. Enter the appropriate choice, or press ENTER to start the installation with the current settings.

- 15** You are prompted for your product registration. Enter your name, company name, serial number, and key. The serial number and key are supplied to you by DataDirect Technologies when you purchase SequeLink. If you are installing an evaluation copy of SequeLink Server, leave the Key field empty.
- 16** The installer prompts you to review the information. Enter **C** to change the information, or press ENTER to continue.
- 17** The license agreement is displayed. Press ENTER to advance through the license agreement. Then, enter **YES** to accept the license agreement or **NO** to decline the agreement and end the installation.
- 18** The installer prompts you to continue with the installation. Press ENTER to continue. The installer installs the files.
- 19** When the installation of the SequeLink Agent is complete, the installer prompts you to start the SequeLink Agent service.

```

-----
Starting SequeLink Agent service
-----
Would you like to start the SequeLink Agent (Y/N) ? [Y]

Enter Y to start the SequeLink Agent service. Enter N if you do
not want to start the SequeLink Agent service at this time.
You can start the SequeLink Agent at a later time.

```

- 20** The installer prompts you to start the SequeLink Server data access service.

Would you like to start the SequeLink Server for Oracle (Y/N) ? [Y]

Enter **Y** to start the SequeLink Server data access service.
Enter **N** if you do not want to start the service at this time.
You can start the SequeLink service at a later time.

- 21** The installer prompts you for the password of the SequeLink administrator account you entered in [Step 8](#).

Password:

Enter the password of the SequeLink administrator account.
A message appears when SequeLink Server successfully starts and publishes itself on the TCP/IP port.

Installing From Files Downloaded from the Web

The tar file you download from the DataDirect Technologies Web site depends on the SequeLink Server you are using. To identify the correct SequeLink Server tar file, see the following table for a list of SequeLink Server tar file names:

SequeLink Server	Tar Files
DB2	sldb2.tar
Informix	slinf.tar
Oracle	slora.tar
Sybase	slsyb.tar
ODBC Socket	slsoc.tar

To install SequeLink Server from files downloaded from the Web:

- 1 Log on to your UNIX system as *root* or another user. See [“User Login for Installation” on page 53](#) for more information.
- 2 Download the SequeLink Server tar file from the DataDirect Technologies Web site. Download instructions are available on the DataDirect Technologies Web site.

If you are downloading to a machine other than the target machine, you will need to transfer the file (in binary format) to your UNIX workstation. How you transfer files from another system to your UNIX workstation depends on your TCP/IP product and your system’s operating system. For more information about transferring files, refer to the documentation supplied with your TCP/IP product.

IMPORTANT: Transfer the file in binary format. If you transfer the file in the wrong format, the installation will fail.

- 3 On your UNIX server, access the downloaded tar file and extract it. For example, to extract the tar file for SequeLink Server for Oracle, you would enter:

```
tar -xvf SLORA.TAR
```

NOTE: On Solaris, using the `-xvf` argument with the `tar` command may cause warnings to appear; use the `-xof` argument instead. For example, enter:

```
tar -xof SLORA.TAR
```

- 4 If you logged on to your UNIX system as:

- *root*, enter the following command:

```
ksh install.sh
```

- Another user, enter the following command:

```
ksh install.sh -po
```

When you run the installation script, it prompts you for choices you need to make and information you need to

supply. Default answers to questions are enclosed within square brackets, []. To accept the default, press ENTER.

- 5 Verify the SequeLink Server to install (the examples in this procedure show the information that displays when you install SequeLink Server for Oracle).

You are installing the product:

```
SequeLink Server for Oracle 8.0, 8.1, or 9
Version 5.4 on Solaris 7 or higher
```

```
-----
Do you want to continue (Y/N) ? [Y]
```

Enter **Y** to continue the installation. Enter **N** to stop the installation; no software is installed.

- 6 Enter the installation directory, or press ENTER to accept the default installation directory. If the directory does not exist, it will be created for you.
- 7 Enter the UNIX account name that was used to install the database software on your machine.
- 8 Select the connection method that you want SequeLink to use to connect to the Oracle Server.

Please choose the connection method you want SequeLink to use to connect to the Oracle server.

1. Bequeath Protocol
2. Oracle Net Service: connect to the Oracle database through the Oracle listener.

Enter your choice [1]:

The default is to use the Oracle Bequeath Protocol to communicate to the Oracle database engine. However, we strongly recommend that during installation, you select the Oracle Net Service instead. If you accept the default value during installation and later want to use TCP or IPC protocol though the Oracle Net Service, you can change the configuration.

- 9** You are prompted to confirm information about your database installation. Enter the information for which you are prompted, or press ENTER to accept the proposed values.

The installer accessed your current Oracle installation and found a list of possible values for the environment variable ORACLE_SID.

Please enter the value for the environment variable ORACLE_SID applicable to your Oracle installation.

ora9i

Enter a value for the ORACLE_SID variable [ora9i]:

- 10** You are prompted for information that is required to create the SequeLink Agent. The SequeLink Agent allows the SequeLink administrator to configure, manage, and monitor this SequeLink Server using the SequeLink Manager. To create a SequeLink Agent service, enter the user ID of the SequeLink administrator account, or press ENTER to accept the default.

Please enter the Unix account name which will be allowed to administer this SequeLink Server [root] :

- 11** Enter the name of the SequeLink Agent service, or press ENTER to accept the default.

Enter the name of this SequeLink Agent service [SLAgent] :

- 12** Enter the TCP/IP port that the SequeLink Agent service will use to listen for connection requests.

Enter the TCP/IP port for your SequeLink Agent service [19996] :

Enter an available unique port, or press ENTER to accept the default.

NOTE: The port you choose must be unique (not used by another service). If the port you choose is not unique, the installation will fail. No software will be installed.

The installer creates the SequeLink Agent.

- 13** Enter the name of the SequeLink data access service, or press ENTER to accept the default.

Enter the name of your SequeLink Oracle service
[SLOracle9] :

- 14** Enter the TCP/IP port that the SequeLink Server will use to listen for connection requests.

Enter the TCP/IP port for this SequeLink Oracle service
[19996] :

Enter an available port, or press ENTER to accept the default.
The port you choose must not be used by another service.
The installer creates the SequeLink data access service.

- 15** Review the installation settings.

Ready to start installation with the following settings:

```
SequeLink home directory : ../slserver54
SequeLink Agent settings: Administrator : root
                          Service name : SLAgent
                          TCP/IP port: 19995
SequeLink Oracle settings : Service name : SLOracle90
                          TCP/IP port : 19996
Oracle home directory : /rdbms/oracle9i
ORACLE_SID : ora9i
Link service executables : No
You will need approx. 40000 kBytes free disk space in
your SequeLink home directory (depending on your
platform and configuration.).
```

-
- 1) Start installation with these settings
 - 2) Change SequeLink home directory
 - 3) Change SequeLink Agent settings
 - 4) Change SequeLink Oracle settings
 - 5) Change Oracle home directory
 - 6) Change Oracle version
 - 7) Change Oracle Connection method

9) Abort installation
Enter your choice [1] ?

You can choose to continue with the installation using these settings, change any settings, or end the installation. Enter the appropriate choice, or press ENTER to start the installation with the current settings.

- 16 You are prompted for your product registration. Enter your name, company name, serial number, and key. The serial number and key are supplied to you by DataDirect Technologies when you purchase SequeLink. If you are installing an evaluation copy of SequeLink Server, leave the Key field empty.
- 17 The installer prompts you to review the information. Enter **C** to change the information, or press ENTER to continue.
- 18 The license agreement is displayed. Press ENTER to advance through the license agreement. Then, enter **YES** to accept the license agreement or **NO** to decline the agreement and end the installation.
- 19 The installer prompts you to continue with the installation. Press ENTER to continue. The installer installs the files.
- 20 When the installation of the SequeLink Agent is complete, the installer prompts you to start the SequeLink Agent service.

Starting SequeLink Agent service

Would you like to start the SequeLink Agent (Y/N) ? [Y]

Enter **Y** to start the SequeLink Agent service. Enter **N** if you do not want to start the SequeLink Agent service at this time. You can start the SequeLink Agent at a later time.

- 21** The installer prompts you to start the SequeLink Server data access service.

Would you like to start the SequeLink Server for Oracle
(Y/N) ? [Y]

Enter **Y** to start the SequeLink Server data access service.
Enter **N** if you do not want to start the service at this time.
You can start the SequeLink service at a later time.

- 22** The installer prompts you for the password of the SequeLink administrator account you entered in [Step 8](#).

Password:

Enter the password of the SequeLink administrator account.
A message appears when SequeLink Server successfully starts
and publishes itself on the TCP/IP port.

Installing SequeLink Server on OS/390

z/OS Installing SequeLink Server involves the following steps:

- [“Step 1. Unloading the Install Job” on page 77](#)
- [“Step 2. Customizing the Install Job” on page 78](#)
- [“Step 3. Running the Install Job” on page 78](#)
- [“Step 4. Allocating the SequeLink ISPF Libraries to a TSO Session \(Optional\)” on page 79](#)
- [“Step 5. Modifying the APF List” on page 80](#)
- [“Step 6. Configuring SequeLink Server” on page 81](#)
- [“Step 7. Configuring the DB2 Environment” on page 94](#)
- [“Step 8. Using RUNSRVR for DB2” on page 97](#)
- [“Step 9. Configuring SequeLink Service Security” on page 98](#)

Security Requirements for SequeLink Data Sets

This section describes the minimum RACF permissions required by the SequeLink administrator and the ServerUID (the user ID connected to the SequeLink Server’s started task or job) for the data sets that are created by SequeLink during your SequeLink installation and subsequent configuration. These include:

- Installation data sets
- Data sets that are allocated during the server configuration
- Hierarchical file system (HFS) file directory for error reporting and debugging

Installation Data Sets

Installation data sets are prefixed with *HLQ* where *HLQ* is the high-level qualifier. Set RACF permissions for these data sets as shown in the following table:

Data Sets	Required Permissions
TABLES	UPDATE for administrator
CLIST, MSGS, PANELS, SKELS	READ for administrator
LINKLIB, LOADLIB	READ for administrator and ServerUID
SWANDM.INI	READ for administrator
DBRM	READ for administrator
README	READ for administrator

NOTE: ServerUID is the user ID connected to the SequeLink Server's started task or job.

See [“Step 3. Running the Install Job” on page 78](#) for more information about the SequeLink installation data sets.

Data Sets Allocated During the Server Configuration

Data sets that are allocated during the server configuration are prefixed with *SequeLink_HLQ.ServerName* where *SequeLink_HLQ* is the high-level qualifier of the SequeLink libraries. These include data sets that are created during JCL generation and data sets created by the EVLDEF job.

Set RACF permissions for data sets created during JCL generation as shown in the following table:

Data Sets (JCL Generation)	Required Permissions
CNTL	ALTER for administrator
SWANDM.INI	ALTER for administrator UPDATE for ServerUID

NOTE: ServerUID is the user ID connected to the SequeLink Server's started task or job.

Set RACF permissions for the SWEVLOG data set created by the EVLDEF job as shown in the following table:

Data Sets (EVLDEF Job)	Required Permissions
SWEVLOG	ALTER for administrator UPDATE for ServerUID

NOTE: ServerUID is the user ID connected to the SequeLink Server's started task or job.

HFS File Directory for Error Reporting and Debugging

You must create an OMVS segment for the RACF Userid that represents the Sequelink Server. Set RACF permissions to allow this Userid to write to the UNIX HFS filesystem directory, as specified in the ServiceDebugLogPath attribute. The default value is the directory /tmp. For information about the ServiceDebugLogPath attribute, refer to the *SequeLink Administrator's Guide*.

This OMVS segment must also exist to allow the Sequelink Server to use the TCP/IP OpenEdition interface.

Step 1. Unloading the Install Job

The first file you unload contains JCL code you can use to unload the remaining files. This file is a sequential file that can be placed in a sequential or partitioned data set on a disk.

To allow the OS/390 job to read the first file (the install job):

- 1 Customize a JCL deck, using the following code as an example:

```
//--add a valid jobcard
//* Unload install-job from tape
//UNLOAD          EXEC PGM=IEBGENER
//SYSPRINT        DD  SYSOUT=*
//SYSIN           DD  DUMMY
//SYSUT1          DD  DSN=SQLNK.INSTALL,DISP=OLD,
//                  UNIT=tape_unit,
//                  VOL=SER=tape_volser,
//                  LABEL=(1,SL)
//SYSUT2          DD  DSN=dest_dataset,
//                  DISP=(NEW,CATLG,DELETE),
//                  UNIT=disk_unit,
//                  VOL=SER=disk_volser,
//                  SPACE=(TRK,(1,1))
//*
```

where:

<i>tape_unit</i>	is the unit name of the tape reader.
<i>tape_volser</i>	is the volume serial number of the SequeLink tape.
<i>dest_dataset</i>	is the name of the destination data set that will be created to receive the install job stream.
<i>disk_unit</i>	is the unit name to be used for disk storage.
<i>disk_volser</i>	is the volume serial number of the disk to be used.

- 2 Submit the JCL deck for processing as a batch job.

Step 2. Customizing the Install Job

Submitting the job you created in the previous section places the first file from the SequeLink tape on disk. This unloaded file, now called the *Install Job*, contains a job that unloads all other SequeLink data sets to disk. Before running this job, customize it for your environment following the instructions contained in the JCL of the Install Job.

Step 3. Running the Install Job

After you have customized the JCL deck with values for your environment, submit the Install Job to unload the files from the SequeLink tape to the disk specified in the job. [Table 2-4](#) describes the SequeLink Server for OS/390 installation files.

Table 2-4. SequeLink Server for OS/390 Installation Files

Data Set	Description
CLIST	A data set that contains REXX executables used by the SequeLink Manager for OS/390.
DBRM	A partitioned data set that contains the DB2 Database Request Module (DBRM) used to create the packages for the DB2 service.
LOADLIB	A partitioned data set that contains all the system load modules for SequeLink Server.
LINKLIB	The SAS/C runtime library.
MSGGS	A data set that contains ISPF messages generated by the SequeLink Manager for OS/390.
PANELS	A data set that contains ISPF panels used by the SequeLink Manager for OS/390.
README	A README data set containing installation information for SequeLink Server on OS/390.

Table 2-4. SequeLink Server for OS/390 Installation Files (cont.)

Data Set	Description
SKELS	A data set that is used to generate JCL.
SWANDM.INI	The SequeLink configuration file used for all SequeLink services on the OS/390 machine. <i>Do not alter this file.</i>
TABLES	A data set containing ISPF tables used by the SequeLink Manager for OS/390. This library is also used to store the list of known SequeLink Servers.

Step 4. Allocating the SequeLink ISPF Libraries to a TSO Session (Optional)

Allocating the SequeLink ISPF libraries to your TSO session allows you to use a simpler command syntax for starting the SequeLink Manager for OS/390 (as described in [“A. Starting the SequeLink Manager for OS/390”](#) on page 81).

If you are planning to use the SequeLink Manager for OS/390 regularly, we recommend that you allocate the SequeLink ISPF libraries to the TSO session as shown in [Table 2-5](#).

Table 2-5. SequeLink ISPF Library Allocation (z/OS, OS/390)

SequeLink ISPF Libraries	Allocate to...
<i>SequeLink_HLQ</i> .CLIST	SYSPROC or SYSEXEC
<i>SequeLink_HLQ</i> .LOADLIB	ISPLLIB
<i>SequeLink_HLQ</i> .MSGS	ISPMLIB
<i>SequeLink_HLQ</i> .PANELS	ISPLLIB

NOTE: *SequeLink_HLQ* is the SequeLink high-level qualifier identifying the libraries.

Table 2-5. SequeLink ISPF Library Allocation (z/OS, OS/390)
(cont.)

SequeLink ISPF Libraries	Allocate to...
<i>SequeLink_HLQ</i> .SKELS	ISPSLIB
<i>SequeLink_HLQ</i> .TABLES	ISPTLIB
NOTE: <i>SequeLink_HLQ</i> is the SequeLink high-level qualifier identifying the libraries.	

Step 5. Modifying the APF List

Before you can use the SequeLink Server for OS/390, you must modify the APF list to contain entries for the following items:

- LOADLIB data set containing the executable modules of the SequeLink Server.
- LINKLIB (the SAS/C runtime library distributed with SequeLink). It must be APF-authorized.

To authorize LOADLIB and LINKLIB:

- 1 Locate the SYS1.PARMLIB data set.
- 2 To APF-authorize the libraries dynamically, modify the PROGxx member of the SYS1.PARMLIB to include an entry for each SequeLink Server data set LOADLIB and LINKLIB SAS/C runtime library. Enter the operator command /SET PROG=xx to activate the change.

Alternatively, you can copy the executable modules into an existing APF-authorized library.

Step 6. Configuring SequeLink Server

Configuring SequeLink Server involves the following stages:

- ["A. Starting the SequeLink Manager for OS/390" on page 81](#)
- ["B. Creating a SequeLink Server" on page 84](#)
- ["C. Reviewing the SequeLink Server Configuration" on page 88](#)
- ["D. Configuring a Server Using DB2 CAF Attachment" on page 90](#)
- ["E. Generating JCL" on page 92](#)
- ["F. Creating the EventTrace Data Set" on page 93](#)
- ["G. Configuring New SequeLink Features" on page 93](#)

IMPORTANT: Do not directly edit the *SequeLink_HLQ.SWANDM.INI* file (where *SequeLink_HLQ* is the SequeLink high-level qualifier). When you define a SequeLink Server, copies of these master files are created for the SequeLink Server definition using the name of the SequeLink Server. The server-specific configuration file must be maintained by the SequeLink Manager for OS/390 and must not be edited directly.

A. Starting the SequeLink Manager for OS/390

- 1 Start the SequeLink Manager for OS/390. How you start the SequeLink Manager for OS/390 depends on whether you allocated the SequeLink ISPF libraries to the TSO session as described in the previous section:
 - If you allocated the ISPF libraries, continue with [Step 2](#).
 - If you did not allocate the ISPF libraries, continue with [Step 3](#).

2 Starting the SequeLink Manager When ISPF Libraries Are Allocated:

Type the following command:

```
TSO %SSMC ['HLQ(SequeLink_HLQ)']
```

where *SequeLink_HLQ* is the SequeLink high-level qualifier that identifies *all* SequeLink libraries. Then, press ENTER. You are only required to enter the SequeLink high-level qualifier the first time you start the SequeLink Manager for OS/390, because this qualifier is saved in the user's ISPF profile.

For example:

```
TSO %SSMC 'HLQ(DDTEK.SL530)'
```

or

```
TSO %SSMC
```

In the second example, the ISPF profile will be searched for an existing HLQ.

3 Starting the SequeLink Manager When ISPF Libraries Are Not Allocated:

Type the following command:

```
TSO EX 'SequeLink_HLQ.CLIST(SSMC)'  
['HLQ(SequeLink_HLQ)']
```

where *SequeLink_HLQ* is the SequeLink high-level qualifier that identifies *all* of the necessary libraries. Then, press ENTER. You are required to enter the SequeLink high-level qualifier only the first time you start the SequeLink Manager for OS/390 because this qualifier is saved in the user's ISPF profile.

For example:

```
TSO EX 'DDTEK.SL530.CLIST(SSMC)' 'HLQ(DDTEK.SL530)'
```

or

```
TSO EX 'DDTEK.SL530.CLIST(SSMC)'
```

The HLQ used will be the HLQ from which the SSMC CLIST is fetched.

NOTE: In the first example, the HLQ specified to locate the SSMC CLIST might be different from the HLQ argument passed. This is especially important when administering two different versions of SequeLink. In this case, we recommend that you always specify the HLQ argument explicitly.

- 4 When you start the SequeLink Manager for OS/390, copyright information appears. Press ENTER to continue. The SequeLink Manager for OS/390 main menu appears.

```

DataDirect SequeLink Manager for OS/390 - Main menu

Command ==>

Choose a dialog to start and press Enter:

    0. Settings
    1. Sequelink Server management dialog

F1=Help      F3=End      F5=View Err F12=Cancel

```

- 5 Type 1 (SequeLink Server management dialog); then, press ENTER. The ServerList panel appears.

```
DataDirect SequeLink Manager for OS/390 - ServerList          Row 1 to 3 of 3

Allowed actions or commands are:

o (S)elect a server      o (G)enerate JCL
o (A)dd a server         o (O)perator interface
o (D)elete a server

      Name      Description
-----
***** Bottom of data *****

Command ==>                                         Scroll > PAGE

  F1=Help      F3=End      F5=View Err  F7=Up      F8=Down      F10=Left
 F11=Right    F12=Cancel
```

B. Creating a SequeLink Server

On OS/390, a SequeLink Server is a started task/job name that corresponds to a single data access service. You can define multiple SequeLink Servers on the same OS/390 machine. Each SequeLink Server has SequeLink Agent functionality that is included in the data access service. When you add a SequeLink Server, you are prompted to add a DB2 interface and a service.

To create a SequeLink Server:

- 1 From the ServerList panel, type A at the Command prompt to create a SequeLink Server; then press ENTER. The Add Server panel appears.

```

DataDirect SequeLink Manager for OS/390 - Add server

Complete the following fields for the new server:

Server name . . . . .
Description

Hostname/IP-address      10.25.129.07

Portnumber . . . .

Command ===>

```

- 2 Provide the following information, then press ENTER:

Server name: Type the name of the new SequeLink Server definition. The server name you choose will be the job name or started task name.

Description: Type a description for the new SequeLink Server definition.

Hostname/IP-address: Type the TCP/IP host name or the TCP/IP address of the SequeLink Server definition. The HOME address of the local TCP/IP stack or the standard 127.0.0.1 TCP/IP loopback address will be inserted. In some instances, such as when the TSO session for the SequeLink Manager is running on another IP stack than the server, you must specify the TCP/IP address of the server machine.

Portnumber: Type the port to be used by the SequeLink service.

NOTE: When you create a server, a server-specific configuration file is created. If such a file already exists, you are prompted to confirm whether you want to overwrite the existing configuration file.

3 You are prompted to supply parameters to the DB2 interface.

```

DataDirect SequeLink Manager for OS/390
-----
DataDirect SequeLink Manager for OS/390 - Add DB2 Interface

Enter the parameters for the new interface from server ACCT1 to DB2:

Interface ID . . .          DB2 Subsystem ID
DB2 Version  . . .          (eg.:V710)

Description

DB2 Loadlib
DB2 Exitlib

Command ==>

```

4 Provide the following information; then, press ENTER.

Interface ID: Type a Logical ID identifying the DB2 interface for the SequeLink Server, for example, DSN7.

DB2 Subsystem Id: Type the SubsystemId of the DB2 subsystem you want to access, for example, DB7R.

DB2 Version: Type the version of DB2 to be used.

Description: Type a description of the DB2 interface.

DB2 Loadlib: Type the name of the DB2 load library.

DB2 Exitlib: Type the name of the DB2 exit library.

5 You are prompted to supply parameters to define the service.

```

DataDirect SequeLink Manager for OS/390 - Add service
Command ==>

Complete the following fields for the new service for server ACCT1: \
Service name . . . .
Description
Portnumber . . . . 3456

```

6 Provide the following information; then, press ENTER.

Service name: Type the service name.

Description: Type a description of the service.

Portnumber: The port number entered in the Server Definition panel is displayed here.

7 The ServerList panel shows the SequeLink Server you just created.

```

DataDirect SequeLink Manager for OS/390 - ServerList          Row 1 to 2 of 2
Allowed actions or commands are:
o (S)elect a server      o (D)eleate a server
o (A)dd a server         o (O)perator interface
                        o (G)enerate JCL

Name      Description
-----
ACCT1     Accounting
SALES1    Sales Department
***** Bottom of data *****
Command ==>                                          Scroll > PAGE

```

Once you have created a SequeLink Server, type s beside it to view the server management tree. The server management

tree shows the DB2 interface, User ID (UID) maps, and SequeLink Service and its configuration settings.

See [“C. Reviewing the SequeLink Server Configuration” on page 88](#) for information on making modifications to this newly configured Server. Refer to the *SequeLink Administrator’s Guide* for more information on navigating through the server management tree.

C. Reviewing the SequeLink Server Configuration

To review your SequeLink Server configuration:

- 1 Type **s** beside the Server that you want to configure; then, press ENTER. The server management tree for the selected server is displayed.
- 2 From the server management tree, type **/** beside the Service Settings node of the SequeLink service to expand it; then, press ENTER. The server management tree shows the attribute categories for the service.
- 3 Type **s** beside the attribute category for which you want to view attributes; then, press ENTER. The AttributeList panel appears for that category, listing all the attributes and their values.

For example, if you selected the Administration Security category, the following AttributeList panel appears.

```

DataDirect SequeLink Manager for OS/390

----- DataDirect SequeLink Manager for OS/390 - AttributeList -----
                                                    Row 1 to 2 of 2
                                                    MORE >>>

Service ACCTDB21
Enter the 'ADD'-command to add an attribute or
perform one of the actions below on a specific attribute
o (S)elect    o (C)hange    o (D)elete    o (?)Help

      Name                                     Value
-----
      MVSServiceAdminSecurity                 SAFBASIC
      ServiceAdminAuthMethods                 OSLogon(UID,PWD)
***** Bottom of data *****

COMMAND ==>>
F1=Help      F3=End      F5=View Err    F7=Up      SCROLL > PAGE
F10=Left     F11=Right   F12=Cancel   F8=Down

```

NOTE: To display help about an attribute, type ? beside the attribute; then, press ENTER.

For instructions on adding, changing, and deleting attributes, including server data source attributes, refer to the *SequeLink Administrator's Guide*.

If you cannot use the DB2 RRSAF attachment, you must make some additional changes. Continue to ["D. Configuring a Server Using DB2 CAF Attachment"](#) on page 90. Otherwise, skip to ["E. Generating JCL"](#) on page 92.

D. Configuring a Server Using DB2 CAF Attachment

If you cannot use the DB2 RRSAP attachment, you must change additional configuration settings.

- 1 Type **S** beside the Global Settings node for the server; then, press ENTER.
- 2 In the AttributeList panel, type **C** next to the MVSGlobalDB2Attachment service attribute. The service attribute panel appears.

```

DataDirect SequeLink Manager for OS/390

Command ==>

MVSGlobalDB2Attachment
Allowed values are listed below:

Use S or / to select a value.

    Allowed values
-----
/  CAF
_  RRSAP

```

- 3 Type **/** next to CAF to select it; then, press ENTER.
- 4 In the management tree of the SequeLink Service, expand the nodes. Type **/** next to the Advanced node; then, press ENTER. The AttributeList panel is displayed.

```

DataDirect SequeLink Manager for OS/390
      DataDirect SequeLink Manager for OS/390 - AttributeList
                                                    Row 1 to 2 of 2
COMMAND ==>                                     SCROLL > PAGE
                                                    MORE >>>

Service DB2V530
Enter the 'ADD'-command to add an attribute or
perform one of the actions below on a specific attribute
o (S)elect    o (C)hange    o (D)elete    o (?)Help

      Name                                     Value
-----
- ServiceCodePage                             OS
- ServiceConnectionModel                     ThreadPool
- ServiceMaxThreads                          2000
- ServiceMaxThreads                          64
- ServiceMinThread                          32
***** Bottom of data *****

```

- 5 Type **s** beside the attribute you want to change; then, press ENTER. The Attribute Display window appears with the cursor positioned at the value field of the attribute.
- 6 Type the new values of the following attributes; then, press ENTER.
 - Change ServiceConnectionModel to Thread/Connection
 - Increase ServiceMaxThreads to 256
 - Decrease ServiceMaxSessions to 250

You are returned to the AttributeList panel, and the attribute values, if valid, are changed.

- 7 Press F3 to return to the server management tree.

NOTE: We highly recommend that you use the ThreadPool connection model, which requires the RRSAF attachment. This setting allows you to have an almost limitless number of connections.

E. Generating JCL

After a SequeLink Server is created and configured for the first time, you must generate the JCL. The SequeLink Manager adapts the JCL from the SequeLink_HLQ.SKELS data set and saves the adapted output in a server-specific data set named *SequeLink_HLQ.Servename.CNTL*, where *SequeLink_HLQ* is the high-level qualifier and *Servename* is the name of the SequeLink Server.

The following list shows the JCL members that are generated and the tasks they perform. Also, this list notes any tasks you must perform for the JCL member.

- **BIND:** This member binds all required SequeLink packages and plans. The tailored job contains a job-step for the defined DB2 interface and bind statements for all data sources that use this interface.

NOTE: If data sources are added later, an Interface is changed, or the collection-prefixes of a data source are changed, you must regenerate and submit this member.

- **CFGPRINT:** A summary member you can use for debugging purposes that reports the content of all variables at the time of JCL generation. This member also lists the user and date and time of the last JCL generation.
- **EVLDEF:** This member creates the event trace file for the server.
- **INIT:** This member contains operator interface commands that will be executed after the successful startup of the server.

NOTE: To add or delete operator interface commands you want to execute after the successful startup of the server, edit this member.

- **RUNSMF:** A sample job that allows SMF records to be printed.

- RUNSRVR: This member is the started task or job that is used to start the server.

NOTE: If the DB2 interface is changed, you must regenerate this member, and restart the server.

- RUNWHAT: This member is a diagnostic job that prints all versions of the software components and can be used for debugging. Execute this job only on a specific request from DataDirect Technologies technical support.

F. Creating the EventTrace Data Set

Create the EventTrace data set by running the EVLDEF job you created in ["E. Generating JCL" on page 92](#). This job can be found in the data set *SequeLink_HLQ.ServerName.CNTL* (where *SequeLink_HLQ* is the high-level qualifier and *Servername* is the name of the SequeLink Server). By running EVLDEF, a VSAM data set is created that can be used by the Event Trace and Monitoring components of the SequeLink Server.

G. Configuring New SequeLink Features

Refer to the *SequeLink Administrator's Guide* for information on configuring the following new SequeLink features:

- Support for SYSPLEX
- Support for WLM enclaves
- Support for terminal security

Step 7. Configuring the DB2 Environment

Configuring the DB2 environment for SequeLink Server involves:

- [“A. Binding the SequeLink Package”](#)
- [“B. Granting Access to the SequeLink Server Package” on page 95](#)
- [“C. Granting Cancel Thread Authorization to the SequeLink Server \(RRSAF Attachment Only\)” on page 96](#)
- [“D. Binding the SequeLink Plan \(CAF Attachment Only\)” on page 97](#)
- [“E. Granting Access to the SequeLink Server Plan \(CAF Attachment Only\)” on page 97](#)

A. Binding the SequeLink Package

The server-specific CNTL library contains a generated BIND job to bind the SequeLink DBRMs into packages.

NOTE: Because SequeLink Server for DB2 can change isolation level dynamically, each DBRM is bound into a package using a different isolation level for each package. The collection ID name of each package is created by concatenating the DB2 collection prefix and the DB2 collection suffix as shown in [Table 2-6](#).

Table 2-6. Isolation Levels of SequeLink DBRMs

Data Source Transaction Isolation	Data Source DB2 Collection Prefix	Data Source DB2 Collection Suffix	Collection ID	Isolation
Uncommitted	SWDB2	U	SWDB2_U	UR
Committed	SWDB2	S	SWDB2_S	CS
RepeatableRead	SWDB2	T	SWDB2_T	RS
Serializable	SWDB2	R	SWDB2_R	RR

NOTE: The collection *prefix* is set when you create the SequeLink data source (SequeLink service attribute DataSourceDB2CollectionPrefix). The collection *suffix* is set when you configure the transaction isolation level of the data source (SequeLink service attribute DataSourceTransactionIsolation). For a list of SequeLink service attributes, refer to the *SequeLink Administrator's Guide*.

B. Granting Access to the SequeLink Server Package

Grant access to the SequeLink Server package for all users that will be connecting to the SequeLink Server. When granting access to the SequeLink package, remember to include the user ID associated with the SequeLink Server for each DB2 subsystem to which the SequeLink Server will connect. To grant access to the SequeLink Server package for all users, you can use the following SQL statement:

```
GRANT EXECUTE ON PACKAGE collection-id.* TO PUBLIC
```

where *collection-id.** is a collection-id used in the Sequelink bind job. See [Table 2-6](#) for the names of possible collection-ids.

C. Granting Cancel Thread Authorization to the SequeLink Server (RRSAF Attachment Only)

Sequelink has enhanced the facility to kill a session. In previous versions of SequeLink, when a session was active into DB2, SequeLink had to wait until the session returned.

SequeLink now automatically correlates output from DB2 with information from SequeLink. This means that the SequeLink administrator has more control over the SequeLink sessions, and can take action without spending time to investigate why a killed session does not end.

To request the DB2 database to cancel a DB2 Thread, use the DB2 IFI call interface to route a -CANCEL THREAD(token) command to DB2. SequeLink *only* requests canceling a DB2 Thread which is owned by it. DB2 threads owned by any other application are never canceled.

NOTE: This enhancement is not supported for the CAF attachment.

To enable this feature, the USERID that represents the Sequelink Server address space needs one of the following DB2 authorizations:

- SYSOPR
- SYSCTRL
- SYSADM

See the DB2 "COMMAND REFERENCE" -CANCEL THREAD(DB2) command for full details.

D. Binding the SequeLink Plan (CAF Attachment Only)

The server-specific CNTL library contains a generated BIND job to bind the SequeLink Server packages into plans.

The SequeLink plan name is set when you create the SequeLink data source (SequeLink service attribute MVSDDataSourceDB2Plan). For a list of SequeLink service attributes, refer to the *SequeLink Administrator's Guide*.

E. Granting Access to the SequeLink Server Plan (CAF Attachment Only)

When you are setting up your server to use the CAF attachment, you must grant access to the SequeLink plan for all users who will connect to the SequeLink Server. When granting access to the SequeLink plan, remember to include the user ID associated with the SequeLink Server for each DB2 subsystem to which the SequeLink server will connect.

To grant access to the SequeLink plan for all users, you can use the following SQL statement:

```
GRANT EXECUTE ON PLAN planname TO PUBLIC
```

where *planname* is the name of the SequeLink plan.

Step 8. Using RUNSRVR for DB2

Use the generated RUNSRVR member in the server-specific CNTL data set to start the SequeLink Server for DB2 service. The startup JCL can be a batch job or a started task.

Step 9. Configuring SequeLink Service Security

For more information about configuring SequeLink's security features for OS/390, refer to the *SequeLink Administrator's Guide*.

Step 10. Configuring Security for the SequeLink Manager for OS/390 Operator Interface

Some Operator Interface commands can be useful in performing administration tasks. These commands can be issued using the Operator Interface of the SequeLink Manager for OS/390. For more information about configuring security for the Operator Interface of the SequeLink Manager for OS/390, refer to the chapter on using the SequeLink Manager in the *SequeLink Administrator's Guide*.

Upgrading or Extending an Evaluation License

If you are using an evaluation version of SequeLink Server, you can upgrade to a licensed version or extend your evaluation for another 15 days. How you do this depends on your platform.

NOTE: After upgrading to a licensed version, you must restart the SequeLink Agent and SequeLink Server for the change to become active.



Windows NT, Windows 200x, and Windows XP

- 1 Call DataDirect Technologies sales to obtain an 8-digit key to upgrade your evaluation version to a licensed version or an 8-digit key to extend your evaluation version for another 15 days.
- 2 Select **Start / Programs**, and select the appropriate SequeLink Server application. Then, select **DataDirect Technologies Product Registration** to display the DataDirect Technologies Product Registration dialog box. In this dialog box, type the 8-digit key.
- 3 Click **Next** to continue with the registration. The Registration Configuration window appears. This window lists the information you entered in the DataDirect Technologies Product Registration dialog box. If it is correct, click **Yes**. Otherwise, click **No** to return to the DataDirect Technologies Product Registration dialog box and correct your registration information.
- 4 After confirmation, a DataDirect Technologies Product License Agreement window appears. If you accept the agreement, the upgrade continues. If you do not, the upgrade stops.

- 5 Follow the on-screen instructions to complete the SequeLink Server registration.



UNIX

- 1 Call DataDirect Technologies sales to obtain an 8-digit key to upgrade your evaluation version to a licensed version or an 8-digit key to extend your evaluation version for another 15 days.
- 2 Log on as root.
- 3 Change to the ipe subdirectory of your SequeLink installation directory. For example:

```
cd /usr/slserver/ipe
```

- 4 Run the ipeexe.sh shell script. For example:

```
./ipeexe.sh
```

- 5 Follow the on-screen instructions to provide the serial number and key.

3 Installing the SequeLink Manager



The SequeLink Manager tool allows you to centrally configure and manage your SequeLink environment. This chapter provides installation instructions for the SequeLink Manager Snap-in and SequeLink Manager Command-Line Tool on a networked client.

NOTE: The SequeLink Manager is installed by default with the SequeLink Server. You only need to install the SequeLink Manager as described in this chapter if you want to run the SequeLink Manager on a Windows NT, Windows 2000, Windows Server 2003, or Windows XP machine other than the machine running SequeLink Server.

See [Chapter 2 “Installing SequeLink Server” on page 33](#) for instructions on installing the SequeLink Manager locally on the SequeLink Server.

Installing the SequeLink Manager

The SequeLink Manager installer requires the Microsoft Windows Installer service. If the SequeLink Manager installer detects that the service is not installed on your machine, or that an older version is installed, a message is displayed. After installing the Microsoft Windows Installer service, you might need to restart your machine. Then you can install.

The SequeLink Manager installer on Windows NT, Windows 2000, Windows Server 2003, and Windows XP also checks for Microsoft Data Access Components (MDAC). If the installer detects that MDAC 2.6 or higher is not installed, an

error message is generated. You must install MDAC. MDAC 2.7 is shipped with SequeLink and can be found in the sqlnk54\win directory on the DataDirect CD.

To start the SequeLink Manager installer:

- **If installing from the DataDirect CD**, insert the CD into the CD-ROM drive. If you have a local CD-ROM drive, this typically is drive D. If the CD-ROM drive is on a network, mount the CD and create a mapping to the CD-ROM drive. Then, perform one of the following actions:
 - If AutoPlay for CDs is enabled and you have a browser, the main installer window displays automatically. Select the product that you want to install; then, follow the instructions to install the product.
 - If AutoPlay for CDs is not enabled or you do not have a browser, use Windows Explorer to navigate from the root directory of the CD to the folder for the SequeLink Manager (\sqlnk54\win\manager). Then, double-click **setup.exe**.
- **If installing from files downloaded from the Web**, follow the download instructions on the DataDirect Technologies Web site to download the appropriate self-extracting ZIP file. Open the contents of the ZIP file into a directory (for example: C:\temp). Then, navigate to the directory that contains the unzipped files and double-click **setup.exe** to start the installer.

To install the SequeLink Manager:

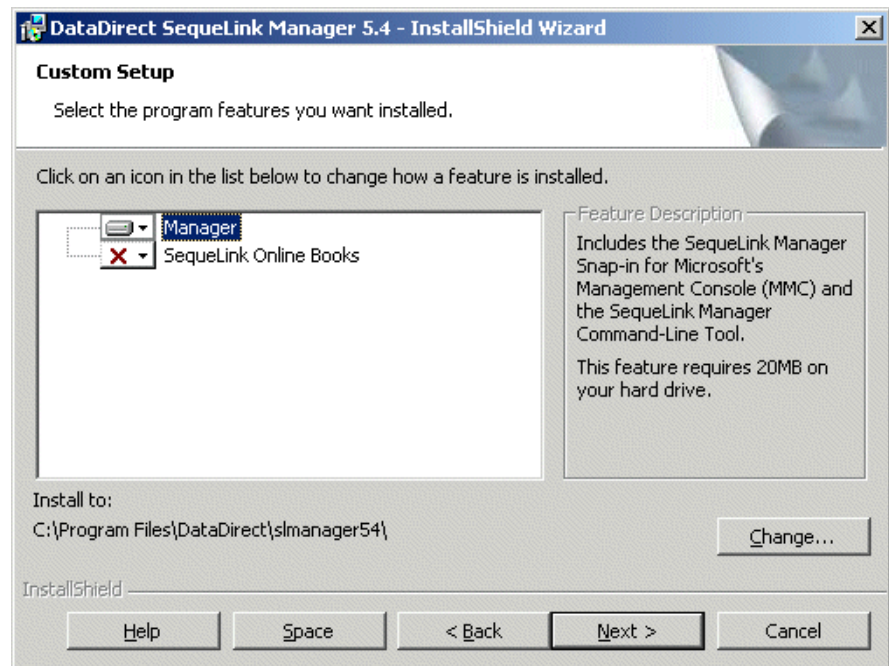
- 1 Start the SequeLink Manager installer. When the Welcome window appears, click **Next** to continue.
- 2 The License Agreement window appears. Accept the license agreement by clicking the **I accept the terms of the license agreement** option; then, click **Next**.

3 The Installation Guide window allows you choose specific installation options.

- a Click one or multiple component icons to select the components to install. When you select a component, a description of the component appears in the Feature Description box.

NOTE: If you want the SequeLink Manager to be installed on a drive other than the local drive, click the **Manager** component icon and select its installation option.

- b To change the installation directory, click **Change**. A window appears allowing you to browse and select an installation directory. The default directory is C:\Program Files\DataDirect\slmanager54.



When you are satisfied with your settings, click **Next**.

- 4 The Ready to Modify the Program window allows you to go back and review your choices before proceeding. If you are ready to install, click **Install**.
- 5 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**. For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

4 Installing the ODBC Client

This chapter provides installation instructions for the *SequeLink for ODBC Client* (the ODBC Client).

IMPORTANT: You must install both the *SequeLink Server* and the *SequeLink Client*. If you have not already done so, install the *SequeLink Server* after installing the Client.

Installing the ODBC Client on Windows



The *SequeLink for ODBC Client* installer on Windows requires the Microsoft Windows Installer service. If the *SequeLink for ODBC Client* installer detects that the service is not installed on your machine, or that an older version is installed, a message is displayed. After installing the Microsoft Windows Installer service, you might need to restart your machine. Then you can install.

The *SequeLink for ODBC Client* installer also checks for Microsoft Data Access Components (MDAC) and DCOM (Windows 98 and Windows Me only). If the installer detects that:

- MDAC 2.6 Service Pack 1 or higher is not installed, an error message is generated. You must install MDAC. MDAC 2.7 is shipped with *SequeLink* and can be found in the `sqlnk54\win` directory on the DataDirect CD.
- DCOM is not installed on your Windows 98 or Windows Me machine, an error message is generated. You must install DCOM.

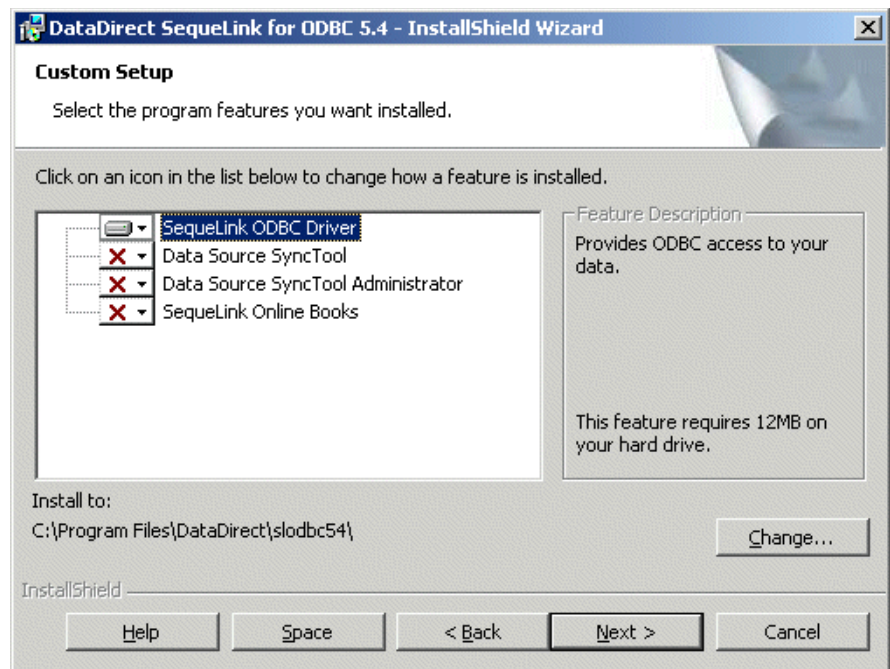
To start the ODBC Client installer:

- **If installing from the DataDirect CD**, insert the CD into the CD-ROM drive. If you have a local CD-ROM drive, this typically is drive D. If the CD-ROM drive is on a network, mount the CD and create a mapping to the CD-ROM drive. Then, perform one of the following actions:
 - If AutoPlay for CDs is enabled and you have a browser, the main installer window displays automatically. Select the product that you want to install; then, follow the instructions to install the product.
 - If AutoPlay for CDs is not enabled or you do not have a browser, use Windows Explorer to navigate from the root directory of the CD to the folder for the product that you want to install (\sqlnk54\win\odbc). Then, double-click **setup.exe**.
- **If installing from files downloaded from the Web**, follow the download instructions on the DataDirect Technologies Web site to download the appropriate self-extracting ZIP file. Open the contents of the ZIP file into a directory (for example: C:\temp). Then, navigate to the directory that contains the unzipped files and double-click **setup.exe** to start the installer.

Installing the ODBC Client

- 1 Start the ODBC Client installer. When the Welcome window appears, click **Next** to continue.
- 2 The License Agreement window appears. Accept the license agreement by checking the **I accept the terms in the license agreement** option; then, click **Next**. The Custom Setup window appears.

- 3 The Custom Setup window allows you to choose specific installation options.
 - a Click one or multiple component icons to select the components to install. When you select a component, a description of the component appears in the Feature Description box. To install a component, click the drop-down arrow in the icon and select "This feature, and all subfeatures, will be installed on local hard drive." The red X disappears on the icon.
 - b To change the installation directory, click **Change**. A window appears allowing you to browse and select an installation directory. The default installation directory is C:\Program Files\DataDirect\slodbc54.



When you are satisfied with your settings, click **Next**.

- 4 The Ready to Install the Program window allows you to go back and review your choices before proceeding. If you are ready to install, click **Install**.

- 5 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.
- 6 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

NOTES:

- If you want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC), you must reboot.
- To change which components are installed or remove the SequeLink *for* ODBC Client from your machine, run the installation program again. When it detects an existing SequeLink *for* ODBC Client installation on your machine, the installer will prompt you to select to **Remove** to uninstall the SequeLink Client from your machine.

Uninstalling can also be accomplished in silent mode. See ["Silent Installations"](#) for details.

Silent Installations

When the Microsoft Windows Installer service is installed, the MSIEXEC.EXE file resides in the system directory of your workstation to make silent installations possible for the initial installation of the SequeLink *for* ODBC Client. Silent installations are useful for system administrators who want to create a batch file to execute the initial installation of multiple identical ODBC Clients.

To install the ODBC Client silently:

Using a command line, change to the directory where the SETUP.EXE file is located. For example, to install from the CD, change to the directory sqlnk54\win\odbc. Type the following command:

```
setup /s /v"/qn"
```

Then, press ENTER. The installation will proceed, using defaults, without requiring any further interaction. The /s switch specifies a silent installation. Other switches and properties can also be used to customize the installation; refer to the Microsoft Windows Installer SDK documentation.

NOTE: Users who want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC) must reboot after installation.

To uninstall the ODBC Client silently:

Using a command line, change to the directory where the SETUP.EXE file is located. For example, change to the directory sqlnk54\win\odbc on the CD. Type the following command:

```
setup /s /x
```

Then, press ENTER. The SequeLink *for* ODBC Client is removed without requiring any further interaction.

Quick Install Images

When the Microsoft Windows Installer service is installed, the MSIEXEC.EXE file resides in the system directory of your workstation to make Quick Install images possible.

A Quick Install Image is a predefined, customized installation image that you can use for the initial installation of the same SequeLink *for* ODBC Client configuration, including data source definitions, on multiple workstations. It helps ensure that all

SequeLink Clients in your organization or workgroup are installed and configured in the same way. Minimal user interaction is required to install the Quick Install Image.

NOTE: Users who want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC) must reboot after installation.

You can configure a Quick Install Image with the following options:

- **Workstation or Network Installation.** If you configure:
 - A workstation installation, all SequeLink *for* ODBC Client files must be installed on each workstation.
 - A network installation, the ODBC Client is installed at a network location and each workstation can share this network version. Before the network version can be used, the Quick Install Image must be run on each workstation.
- **Installation Directory.** On a workstation installation, you can specify the directory where the SequeLink *for* ODBC Client will be installed. The default directory is C:\Program Files\DataDirect\slodbc54.
- **Default Data Sources.** Your Quick Install image can create a set of default data sources. First, you must create a data source file (.DSF) using the SequeLink Data Source SyncTool Administrator. For instructions on exporting ODBC data source definitions to data source files, refer to the *SequeLink Administrator's Guide*.

NOTE: Quick Install images only support data source files that specify import in Merge or Overwrite mode.

Creating a Quick Install Image

- 1 Using a command line, change to the directory where the SETUP.EXE file is located. For example, to install from the CD, change to the sqlnk54\win\odbc directory on the CD and type the following command:

```
setup /a
```

Then, press ENTER.

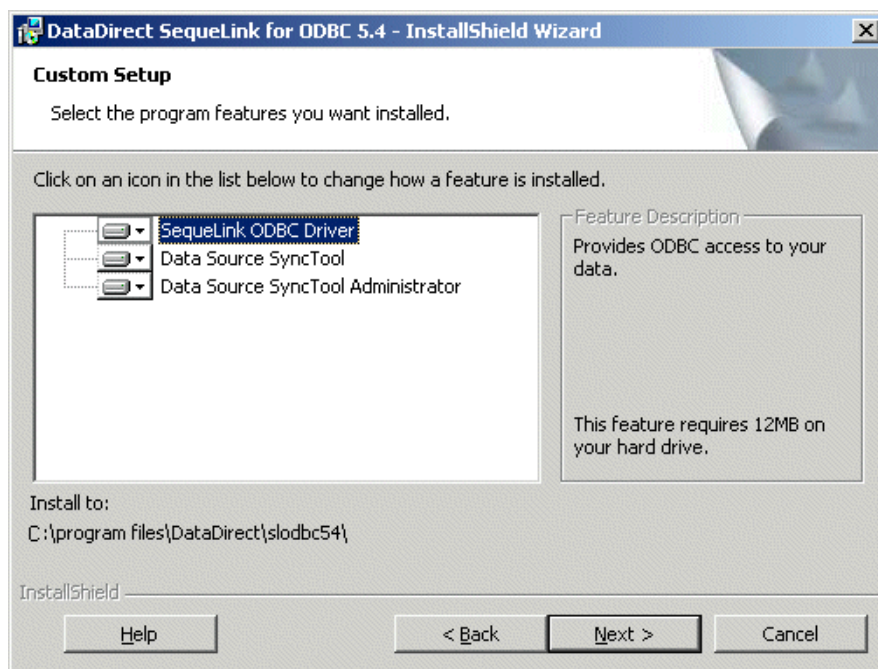
- 2 The Welcome window appears. Click **Next** to continue.
- 3 The Workstation or Network Quick Install image window appears.

Select the type of Quick Install image to create:

- For a Network Quick Install image, select the **Create a Network Quick Install image** option and click **Next**. Skip to [Step 5](#).
 - For a Workstation Quick Install image, select the **Create a Workstation Quick Install image** option and click **Next**. Continue with [Step 4](#).
- 4 For a Workstation Quick Install image, the Destination Folder window allows you to specify a folder on the workstation where the ODBC Client will be installed. The default destination folder is C:\Program Files\DataDirect\SLODBC54.

Click **Change** to choose another folder. When you are satisfied with your choice, click **Next** to continue. Continue with the next step.
 - 5 The Custom Setup window allows you to choose specific installation options. Click one or multiple component icons to select the components to install. When you select a component, a description of the component appears in the Feature Description box. To install a component, click the drop-down arrow in the icon and select "This feature, and all

subfeatures, will be installed on local hard drive." The red X disappears on the icon.



After setting all options, click **Next**.

- 6 The Create Default Data Sources window allows you to choose whether to create default data sources.
 - If you click **No**, skip to [Step 8](#).
 - If you click **Yes**, continue with [Step 7](#).
- 7 If you choose to create default data sources, the DSF File Location window appears. Click **Browse** to specify the path to the appropriate data source file. Then, click **Next**.

NOTE: Quick Install images only support data source files that specify import in Merge or Overwrite mode. Continue with [Step 9](#).
- 8 In the Network Location window, type the directory where the Quick Install image will be saved in the Network location

field, or click **Change** to navigate to a directory. When you are satisfied with your choice, click **Install**.

- 9 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.

Running a Quick Install Image

To run a Quick Install image, the Microsoft Windows Installer must be available on each workstation. The Quick Install image can also be installed silently. See [“Silent Installations” on page 108](#) for more information about silent installations.

To perform a Quick Install:

- 1 Use one of the following methods to run the Quick Install image from your workstation:
 - Use Windows Explorer to navigate to the network directory containing the Quick Install image file. Double-click **DataDirect SequeLink for ODBC 5.4.Msi**.
 - Verify that the Windows installer MSIEXEC.EXE file is on your path and, using a command line, type the following command:


```
msiexec /i "network_location\DataDirect SequeLink for ODBC 5.4.Msi"
```

where *network_location* is the location of the Quick Install Image file; then, press ENTER.
- 2 The Welcome window appears. Click **Next** to continue.
- 3 The Ready to Install the Program window appears. If you are ready to install, click **Install**.
- 4 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.
- 5 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

Installing the ODBC Client on UNIX



If you are installing:

- **From a CD**, see one of the following sections:
 - [“Installing On a UNIX Workstation without a CD-ROM Drive”](#)
 - [“Installing On a UNIX Workstation with a CD-ROM Drive” on page 118](#)
- **From files downloaded from the Web**, see [“Installing From Files Downloaded from the Web” on page 120](#)

NOTE: Installation of the ODBC Client on Solaris and AIX automatically includes the 64-bit Client.

Installing On a UNIX Workstation without a CD-ROM Drive

Installing the ODBC Client on a UNIX workstation without a CD-ROM drive involves the following steps:

- Transferring files to your UNIX workstation
- Extracting the files
- Running the installation script
- Setting up the SequeLink environment for your users

If your workstation does not have a CD-ROM drive, you must mount the CD on another computer with a CD-ROM drive and transfer the tar file in binary format to your UNIX workstation using file transfer software (for example, FTP). After the tar file is transferred to your UNIX workstation, extract the files from the tar file and run the installation script.

See [“Mounting Your DataDirect Technologies SequeLink CD”](#) on [page 29](#) for information on mounting the CD.

Transferring Files to Your UNIX Workstation

- 1 Mount the CD on a computer with a CD-ROM drive and FTP capability.
- 2 Log on to the UNIX workstation where you want to install the ODBC Client software.
- 3 Create a temporary directory on the UNIX workstation. This directory will be used to run the installation script and can be deleted after installation. For example, enter:

```
mkdir /tmp/sqlnk
```

- 4 On the system from which you will be transferring the files, change to the directory on the CD that applies to your system and client. For example, to install the ODBC Client on Solaris, change to the sqlnk54/solaris/client/ directory on the CD.
- 5 From this system, transfer the file slclient.tar in binary format using file transfer software to the temporary directory you created in [Step 3](#).

How you transfer files from another system to your UNIX workstation depends on your TCP/IP product and your system's operating system. For more information about transferring files, refer to the documentation supplied with your TCP/IP product.

IMPORTANT: Transfer the files in binary format. If you transfer files in the wrong format, the installation will fail.

Extracting ODBC Client Files

On your UNIX workstation, access the tar file you transferred to the temporary directory and extract it. For example, enter:

```
tar -xvf slclient.tar
```

NOTE: On Solaris, using the -xvf argument with the tar command may cause warnings to appear. Use the -xof argument with the tar command instead. For example, enter:

```
tar -xof slclient.tar
```

Running the Installation Script

When you run the ODBC installer, it prompts you for choices you need to make and information you need to supply. Default answers to questions are enclosed within square brackets, []. To accept the default, press ENTER.

To run the installation script:

- 1 Enter the following command to run the installation script:

```
ksh unixpi.ksh
```

- 2 The product information summary displays:

NOTE: The following example shows the information for installing the SequeLink *for* ODBC Client on Solaris; your messages may be different.

```
The Product Setup is preparing the installation for
SequeLink for ODBC Client on Solaris.
Do you want to continue (Y/N) ? [Y]
```

Enter **Y** to continue the installation. Enter **N** to stop the installation; no software will be installed.

- 3 The Product License Agreement screen is displayed. Press any key to advance through the license agreement.

Enter YES to accept the agreement and continue the installation. Enter NO to stop the installation; no software will be installed.

- 4 Enter the fully qualified path of the target directory for the SequeLink *for* ODBC Client software. If this directory does not exist, it will be created for you.
- 5 If the Product Setup detects a previously installed version of the SequeLink *for* ODBC Client in the directory you specified, it asks you if you want to make a backup of your existing installation.

Enter Y to create a backup of your existing installation. The backup will be created in the *installdir/backup* directory, where *installdir* is your SequeLink *for* ODBC Client installation directory, in a file with the format *slclientmmdyy.tar*, where *mmdyy* is the date the file was created.

- 6 The SequeLink *for* ODBC Client is installed. A message appears, informing you when the installation is complete.
- 7 After your installation is complete, you must set up the SequeLink environment for your users. See [“Setting Up the SequeLink Environment for Users” on page 122](#) for instructions on setting up the SequeLink environment for your users.
- 8 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

Installing On a UNIX Workstation with a CD-ROM Drive

If your UNIX workstation has a CD-ROM drive, you can use the Product Setup to install the ODBC Client and other DataDirect Technologies products on your DataDirect CD. The Product Setup prompts you for information you need to supply during installation and provides default values for this information. Default answers to questions are enclosed within brackets, []. To accept the default, press ENTER.

To install the ODBC Client:

- 1 Mount the CD.
- 2 Change to the top-level directory on the CD.
- 3 Enter the following command to run the Product Setup:

```
ksh unixmi.ksh
```

The Product Setup displays a list of all available products.

- 4 Select the product you want to install. For example, select one of the following products:
 - ODBC Client for Solaris
 - ODBC Client for AIX
 - ODBC Client for Linux
 - ODBC Client for HP 11 - aCC Enabled
- 5 The product information summary displays:

NOTE: The following example shows the information for installing the SequeLink *for* ODBC Client on Solaris; your messages may be different.

```
The Product Setup is preparing the installation for
SequeLink for ODBC Client on Solaris.
Do you want to continue (Y/N) ? [Y]
```

Enter **Y** to continue the installation. Enter **N** to stop the installation; no software will be installed.

- 6 A Product License Agreement screen appears. Press **ENTER** to advance through the License Agreement screens.

Enter **YES** to accept the agreement and continue the installation. Enter **NO** to stop the installation; no software will be installed.

- 7 Enter the fully qualified path of the target directory for the SequeLink *for* ODBC Client software. If this directory does not exist, it will be created for you.
- 8 If the Product Setup detects a previously installed version of the SequeLink *for* ODBC Client in the directory you specified, it asks you if you want to make a backup of your existing installation.

Enter **Y** to create a backup of your existing installation. The backup will be created in the *installdir/backup* directory, where *installdir* is your SequeLink *for* ODBC Client installation directory, in a file with the format *slclientmmddyy.tar*, where *mmddyy* is the date the file was created.

- 9 The SequeLink *for* ODBC Client is installed. A message appears, informing you when the installation is complete.
- 10 After your installation is complete, you must set up the SequeLink environment for your users. See [“Setting Up the SequeLink Environment for Users” on page 122](#) for instructions on setting up the SequeLink environment for your users.
- 11 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

Installing From Files Downloaded from the Web

- 1 Download the appropriate tar file from the DataDirect Technologies Web site. Download instructions are available on the DataDirect Technologies Web site.

If you are downloading to a machine other than the target machine, you will need to transfer the files (in binary format) to your UNIX workstation. How you transfer files from another system to your UNIX workstation depends on your TCP/IP product and your system's operating system. For more information about transferring files, refer to the documentation supplied with your TCP/IP product.

IMPORTANT: Transfer the file in binary format. If you transfer files in the wrong format, the installation will fail.

- 2 On your UNIX workstation, access the tar file and extract it. For example, enter:

```
tar -xvf slclient.tar
```

NOTE: On Solaris, using the `-xvf` argument with the `tar` command may cause warnings to appear. Use the `-xof` argument with the `tar` command instead. For example, enter:

```
tar -xof slclient.tar
```

- 3 Enter the following command to run the installation script:

```
ksh unixpi.ksh
```

- 4 The product information summary displays:

NOTE: The following example shows the information for installing the ODBC Client on Solaris; your messages may be different.

```
The Product Setup is preparing the installation for  
SequeLink for ODBC Client on Solaris.
```

```
Do you want to continue (Y/N) ? [Y]
```


Enter **Y** to continue the installation. Enter **N** to stop the installation; no software will be installed.

- 5 The Product License Agreement screen appears. Press Enter to advance through the License Agreement screens.

Enter **YES** to accept the agreement and continue the installation. Enter **NO** to stop the installation; no software will be installed.

- 6 Enter the fully qualified path of the target directory for the ODBC Client software. If this directory does not exist, it will be created for you.

- 7 If the Product Setup detects a previously installed version of the ODBC Client in the directory you specified, it asks you if you want to make a backup of your existing installation.

Enter **Y** to create a backup of your existing installation. The backup will be created in the *installdir/backup* directory, where *installdir* is your ODBC Client installation directory, in a file with the format *slclientmmddyy.tar*, where *mmddyy* is the date the file was created.

- 8 The ODBC Client is installed. A message appears, informing you when the installation is complete.
- 9 After your installation is complete, you must set up the SequeLink environment for your users. See [“Setting Up the SequeLink Environment for Users” on page 122](#) for instructions on setting up the SequeLink environment for your users.
- 10 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

Setting Up the SequeLink Environment for Users

For each SequeLink user, set up a SequeLink environment by running the appropriate shell script in the SequeLink directory:

- If using the Korn or Bourne shell, enter: `. .sqlnk.sh`

NOTE: This script can also be sourced from the user's .profile script.

- If using the C shell, enter: `source .sqlnk.csh`

NOTE: This script can also be sourced from the user's .login script.

- On 64-bit platforms, use the 64-bit versions of these scripts, for example, `sqlnk64.sh`.

5 Installing the ADO Client



This chapter provides installation instructions for the SequeLink *for* ADO Client (the ADO Client).

IMPORTANT: You must install both the SequeLink Server and the SequeLink Client. If you have not already done so, install the SequeLink Server after installing the Client.

Installing the ADO Client on Windows

The ADO Client installer on Windows requires the Microsoft Windows Installer service. If the ADO Client installer detects that the service is not installed on your machine, or that an older version is installed, a message is displayed. After installing the Microsoft Windows Installer service, you might need to restart your machine. Then you can install.

The ADO Client installer also checks for Microsoft Data Access Components (MDAC) and DCOM (Windows 98 and Windows Me only). If the installer detects that:

- MDAC 2.6 Service Pack 1 or higher is not installed, an error message is generated. You must install MDAC. MDAC 2.7 is shipped with SequeLink and can be found in the `sqlnk54\win` directory on the DataDirect CD.
- DCOM is not installed on your Windows 98 or Windows Me machine, an error message is generated. You must install DCOM.

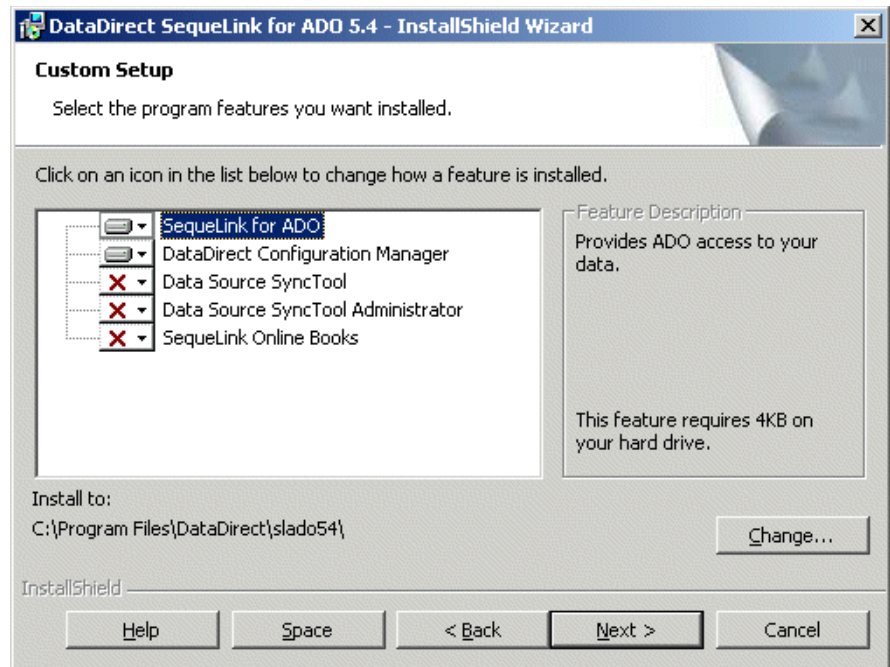
To start the ADO Client installer:

- **If installing from the DataDirect CD**, insert the CD into the CD-ROM drive. If you have a local CD-ROM drive, this typically is drive D. If the CD-ROM drive is on a network, mount the CD and create a mapping to the CD-ROM drive. Then, perform one of the following actions:
 - If AutoPlay for CDs is enabled and you have a browser, the main installer window displays automatically. Select the product that you want to install; then, follow the instructions to install the product.
 - If AutoPlay for CDs is not enabled or you do not have a browser, use Windows Explorer to navigate from the root directory of the CD to the folder for the product that you want to install (\sqlnk54\win\ado). Then, double-click **setup.exe**.
- **If installing from files downloaded from the Web**, follow the download instructions on the DataDirect Technologies Web site to download the appropriate self-extracting ZIP file. Open the contents of the ZIP file into a directory (for example: C:\temp). Then, navigate to the directory that contains the unzipped files and double-click **setup.exe** to start the installer.

Installing the ADO Client

- 1 Start the SequeLink *for* ADO installer. When the Welcome window appears, click **Next** to continue.
- 2 The License Agreement window appears. Accept the license agreement by checking the **I accept the terms in the license agreement** option; then, click **Next**. The Custom Setup window appears.

- 3 The Custom Setup window allows you choose specific installation options.
 - a Click one or multiple component icons to select the components to install. When you select a component, a description of the component appears in the Feature Description box.
 - b To change the installation directory, click **Change**. A window appears allowing you to browse and select an installation directory. The default directory is C:\Program Files\DataDirect\slado54.



When you are satisfied with your settings, click **Next**.

- 4 The Ready to Install the Program window allows you to go back and review your choices before proceeding. If you are ready to install, click **Install**.
- 5 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.

- 6 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

NOTES:

- If you want to use the SequeLink Client with Microsoft DTC, you must reboot.
- To change which components are installed or remove the ADO Client from your machine, run the installation program again. When it detects an existing ADO Client installation on your machine, the installer will prompt you to select **Remove** to uninstall the SequeLink Client from your machine.

Uninstalling can also be accomplished in silent mode. See [“Silent Installations”](#) for details.

Silent Installations

When the Microsoft Windows Installer service is installed, the MSIEXEC.EXE file resides in the system directory of your workstation to make silent installations possible for the initial installation of the ADO Client. Silent installations are useful for system administrators who want to create a batch file to execute the initial installation of multiple identical ADO Clients.

To install the ADO Client silently:

Using a command line, change to the directory where the SETUP.EXE file is located. For example, to install from the CD, change to the directory sqlnk54\win\ado. Type the following command:

```
setup /s /v"/qn"
```

Then, press ENTER. The installation will proceed, using defaults, without requiring any further interaction. The /s switch specifies a silent installation. Other switches and properties can also be

used to customize the installation; see the Microsoft Windows Installer SDK documentation.

NOTE: Users who want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC) must reboot after installation.

To uninstall the ADO Client silently:

Using a command line, change to the directory where the SETUP.EXE file is located. For example, change to the directory on the CD sqlnk54\win\ado. Type the following command:

```
setup /s /x
```

Then, press ENTER. The ADO Client is removed without requiring any further interaction.

Quick Install Images

When the Microsoft Windows Installer service is installed, the MSIEXEC.EXE file resides in the system directory of your workstation to make Quick Install images possible for the initial installation of the ADO Client.

A Quick Install Image is a predefined, customized installation image that you can use for the initial installation of the same ADO Client configuration, including data source definitions, on multiple workstations. It helps ensure that all SequeLink Clients in your organization or workgroup are installed and configured in the same way. Minimal user interaction is required to install the Quick Install Image.

NOTE: Users who want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC) must reboot after installation.

You can configure a Quick Install Image with the following options:

- **Workstation or Network Installation.** If you configure:
 - A workstation installation, the ADO Client must be installed on each workstation.
 - A network installation, the ADO Client is installed at a network location and each workstation can share this network version. Before the network version can be used, the Quick Install Image must be run on each workstation.
- **Installation Directory.** On a workstation installation, you can specify the directory where the ADO Client will be installed. The default directory is C:\Program Files\DataDirect\slado54.
- **Default Data Sources.** Your Quick Install image can create a set of default data sources. First, you must create a data source file (.OSF) using the SequeLink Data Source SyncTool Administrator. For more information about exporting data source definitions to data source files, refer to the *SequeLink Administrator's Guide*.

NOTE: Quick Install images only support data source files that specify import in Merge or Overwrite mode.

Creating a Quick Install Image

- 1 Using a command line, change to the sqlnk54\win\ado directory on the CD and type the following command:


```
setup /a
```


Then, press ENTER.
- 2 The Welcome window appears. Click **Next** to continue.

- 3 The next window prompts allows you to choose a Network or a Workstation Quick Install image.

Select the type of Quick Install image to create:

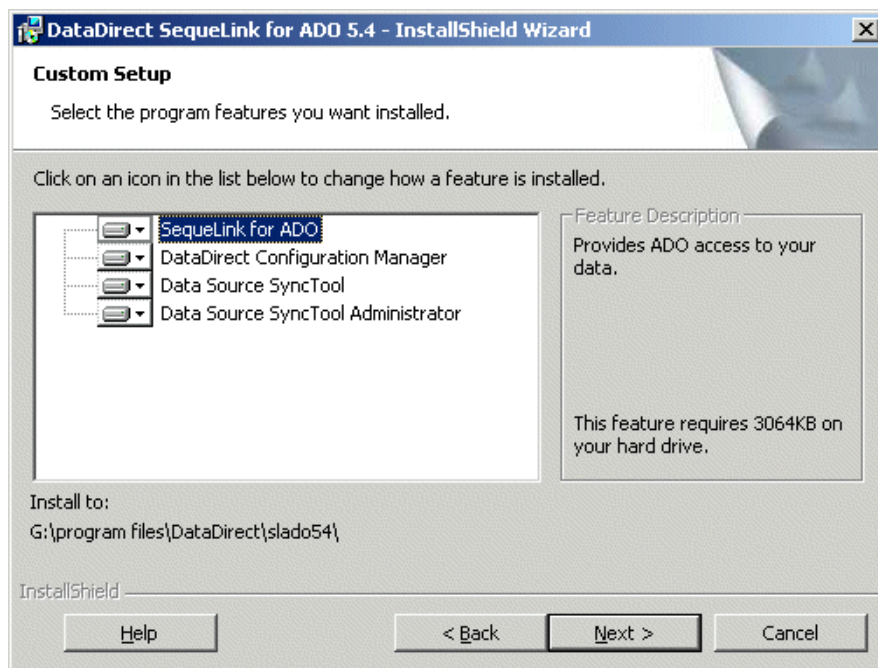
- For a Network Quick Install image, select the **Create a Network Quick Install image** option and click **Next**. Skip to [Step 5](#).
 - For a Workstation Quick Install image, select the **Create a Workstation Quick Install image** option and click **Next**. Continue with [Step 4](#).
- 4 If you are creating a Workstation Quick Install image, the Destination Folder window allows you to specify a folder on the workstation where the ADO Client will be installed. The default destination folder is C:\Program Files\DataDirect\SLADO54.

When you are satisfied with your settings, click **Next**.

Click **Change** to choose another folder. When you are satisfied with your choice, click **Next** to continue. Continue with the next step.

- 5 The Custom Setup window allows you choose specific installation options. Click one or multiple component icons to select the components to install. When you select a component, a description of the component appears in the

Feature Description box. To install a component, click the drop-down arrow in the icon and select "This feature, and all subfeatures, will be installed on local hard drive." The red X disappears from the icon.



- 6 The Create Default Data Sources window allows you to choose whether or not to create default data sources.
 - If you click **No**, skip to [Step 8](#).
 - If you click **Yes**, go to [Step 7](#).
- 7 If you choose to create default data sources, the OSF File Location window is displayed. Click **Browse** to specify the path to the appropriate data source file. Then, click **Next**.
 NOTE: Quick Install images only support data source files that specify import in Merge or Overwrite mode.
- 8 In the Network Location window, type the directory where the Quick Install image will be saved in the Network location

field, or click **Change** to navigate to a directory. When you are satisfied with your choice, click **Install**.

- 9 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.

Running a Quick Install Image

To run a Quick Install image, the Microsoft Windows Installer must be available on each workstation. The image can also be installed silently. See [“Silent Installations” on page 126](#) for more information about silent installations.

To perform a Quick Install:

- 1 Use one of the following methods to run the Quick Install image from your workstation:
 - Use Windows Explorer to navigate to the network directory containing the Quick Install image file. Double-click **DataDirect SequeLink for ADO 5.4.msi**.
 - Verify that the Windows installer MSIEXEC.EXE file is on your path and, using a command line, type the following command:


```
msiexec /i "network_location\DataDirect SequeLink  
for ADO 5.4.msi"
```

where *network_location* is the location of the Quick Install Image file; then, press ENTER.
- 2 The Welcome window appears. Click **Next** to continue.
- 3 The Ready to Install the Program window appears. If you are ready to install, click **Install**.
- 4 The InstallShield Wizard Completed window appears when the installation has been completed successfully. Click **Finish**.
- 5 For instructions on testing your SequeLink installation, refer to the *SequeLink Administrator's Guide*.

6 Installing the JDBC Client

This chapter provides installation instructions for the SequeLink *for* JDBC Client (the JDBC Client).

IMPORTANT: You must install both the SequeLink Server and the SequeLink Client. If you have not already done so, install the SequeLink Server after installing the Client.

See [“Mounting Your DataDirect Technologies SequeLink CD” on page 29](#) for information about mounting the SequeLink CD on the most common java-enabled platforms.

On Windows and UNIX, you can choose to install the online books on your system. When installed, they are located in the books directory that is created beneath the SequeLink installation directory.

When you install the JDBC Client, HTML-based online help for developing JDBC applications is placed by default in the help directory that is created beneath the SequeLink installation directory. See [“SequeLink Documentation” on page 11](#) for details.

Installing the JDBC Client

NOTE: Be sure that the Java Virtual Machine is on your path. The minimum requirement for installation is JDK version 1.2; JDK 1.4 is required for the drivers to use JDBC 3.0 features. See [“SequeLink for JDBC Client” on page 27](#).

To install on your local drive:

- 1 Locate the JDBC Client. If you are installing:
 - From the DataDirect CD, navigate to the sqlnk54/java directory. Skip to [Step 3](#).
 - From the DataDirect Web site <http://www.datadirect-technologies.com/download/downloadindex.asp>, download the sequelinkjdbc.jar file to an *installer* directory. This can also be the *installation* directory for the JDBC Client, but does not have to be. You can choose another installation directory during the installation procedure. Continue with [Step 2](#).
- 2 Switch to the installer directory and use one of the following methods to extract the contents of the sequelinkjdbc.jar file:
 - Use the WinZip utility to open the sequelinkjdbc.jar file. Extract the contents of the jar file to the installer directory.
 - At a command prompt, change to the installer directory and unjar the contents of the jar file by entering the following command:

```
jar xvf sequelinkjdbc.jar
```

Either method extracts the necessary files into the installer directory.

- 3 To run the installer, follow either of the following procedures:
 - If you prefer to use a Graphical User Interface (GUI), go to [“GUI Installation”](#) for instructions.
 - If you prefer to use a command line, go to [“Command-Line Installation” on page 138](#) for instructions.

GUI Installation

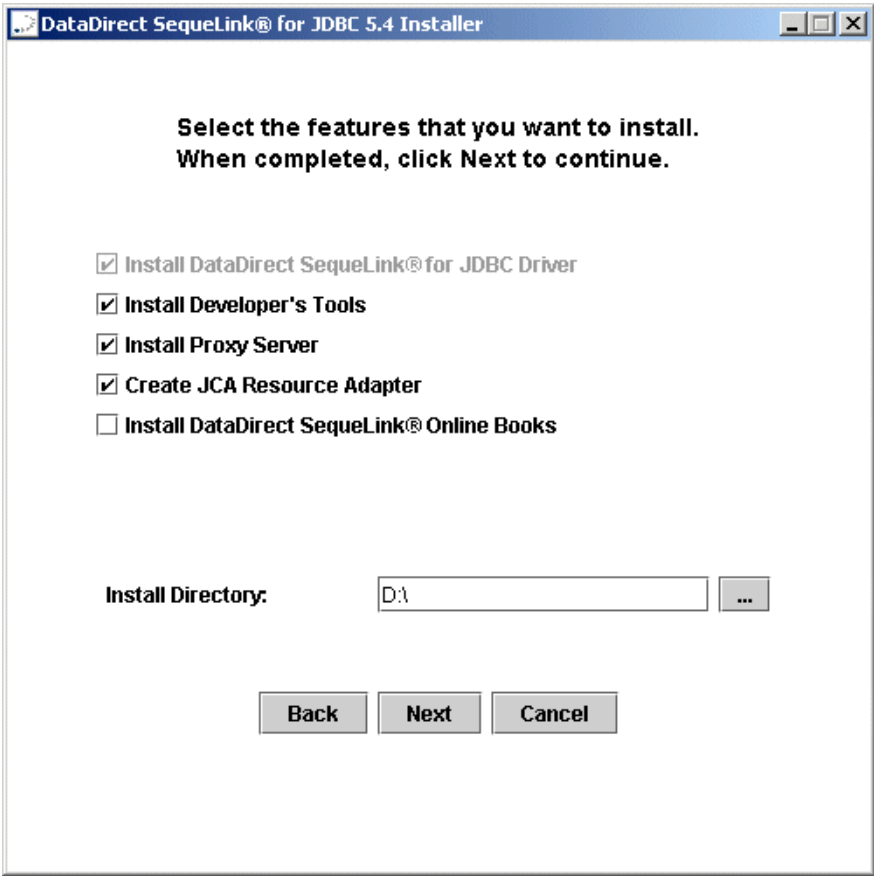
- 1 At a command prompt, enter the following command:

```
java -jar SLJCInstaller.jar
```

The DataDirect SequeLink *for* JDBC 5.4 Installer window appears. Click **Next** to continue.

- 2 The license agreement window appears. Accept the license agreement by checking the **I accept the terms in the license agreement** option; then, click **Next**. The Custom Setup window appears.

- 3 A window appears allowing you to select the components to install.



Because the SequeLink *for* JDBC Driver option is required, the Install the SequeLink *for* JDBC Driver option is grayed out.

Select or clear one or more of the following options:

- **Install Developer's Tools:** Select this option to install DataDirect Test for testing JDBC applications, Spy for tracking JDBC calls, and the DataDirect Connection Pool Manager.

- **Install Proxy Server:** Select this option to install the SequeLink Proxy Server. Installing the SequeLink Proxy Server on the Web server from which your JDBC applets are downloaded allows untrusted applets to connect to SequeLink Servers on hosts other than the Web server.
 - **Create JCA Resource Adapters:** Select this option if you need to create resource adapters to connect to enterprise information systems through the J2EE Connector Architecture (JCA).
 - **Install SequeLink Online Books:** Select this option to install the SequeLink 5.4 library.
- 4 In the Install Directory field, type the path, including the drive letter on Windows machines, of the JDBC Client installation directory or click the ... button next to the field to select an installation directory.

NOTE: The default value for the installation directory is the directory from which the installer is running. Verify that you have entered or selected the correct directory into which you want to install the JDBC Client. If you have a previous version of the JDBC Client installed on the same machine, you must specify a directory different from the one for the previous version.

Then, click **Next** to continue.

- 5 A window appears allowing you to confirm your installation options. Click **Back** to revise your choices, or click **Install** to install the JDBC Client. The JDBC Client is installed.
- 6 Click **Finish** to close the Installer.

Command-Line Installation

- 1 At a command prompt, change to the directory where the SLJCInstaller.jar is located.
- 2 Enter the following command:

```
java -cp SLJCInstaller.jar
com.ddtek.jdbc.sljcinstaller.Installer -ir {yes|no}
-it {yes|no} -ib {yes|no} -ip {yes|no} -d {install_dir}
```

where:

- ir {yes|no}. If yes, JCA resource adapters are installed for connecting to enterprise information systems through the J2EE Connector Architecture (JCA).
- it {yes|no}. If yes, the following JDBC development components are installed: DataDirect Test for testing JDBC applications, Spy for tracking JDBC calls, and the DataDirect Connection Pool Manager.
- ib {yes|no}. If yes, the SequeLink 5.4 library is installed.
- ip {yes|no}. If yes, the SequeLink Proxy Server is installed. Installing the SequeLink Proxy Server on the Web server from which your JDBC applets are downloaded allows untrusted applets to connect to SequeLink Servers on hosts other than the Web server.
- d *install_dir* Specifies the full path, including the drive letter on Windows machines, to the JDBC Client installation directory.

NOTE: If the directory path contains spaces, you must enclose the path name with double quotation marks, for example:

```
-d "c:\Program Files\DataDirect\sljc"
```

- 3** If the JDBC Client was successfully installed, a message appears confirming the installation.

Example:

```
java -cp SLJCInstaller.jar  
com.ddtek.jdbc.sljcinstaller.Installer -ir yes -it yes  
-ib yes -ip no -d "C:\Program Files\DataDirect\sljc"
```

This SequeLink command-line example performs the following actions:

- Installs the SequeLink *for* JDBC Driver
- Creates JCA resource adapters (-ir yes)
- Installs the JDBC development components DataDirect Test and Spy (-it yes)
- Installs the SequeLink Online Books (-ib yes)
- Does not install the SequeLink Proxy Server (-ip no)
- Installs the preceding components to the installation directory C:\Program Files\DataDirect\sljc (-d "C:\Program Files\DataDirect\sljc")

Installed Files

Table 6-1 shows the JDBC Client directory after installation and provides a description of the files.

Table 6-1. JDBC Client Directory and Files

Directories and Files	Description
books/*.*	Files for the SequeLink online books, which are in PDF format.
driver/examples/CheckAgainstCertificateFromFile.java driver/examples/CheckAgainstCertificateFromJar.java driver/examples/KeyStoreCertificateChecker.java	Contain Java source files that provide examples of certificate checkers.
driver/examples/JNDI_FILESYSTEM_Example.java driver/examples/JNDI_LDAP_Example.java	Contain Java source files that allow you to create JDBC data sources. These source files must be adapted for your environment, and subsequently compiled and run.
driver/lib/sljc.jar	JAR file containing all classes of the JDBC driver implementing the JDBC 3.0 API. To load the driver, add this path to your CLASSPATH variable. This JAR file also contains all classes of the JDBC driver implementing the JDBC 2.0 Optional Package. To use the JDBC 2.0 Optional Package, add this path to your CLASSPATH variable.
driver/lib/slssl.jar	JAR file required for pre-JDK 1.4 JVMs. The files contain all classes of the JDBC driver that implement Secure Socket Layer (SSL) encryption.
driver/lib/slssl14.jar driver/lib/iaik_jce_full.jar	JAR files required for JDK 1.4 JVMs. The files contain all classes of the JDBC driver that implement Secure Socket Layer (SSL) encryption.

Table 6-1. JDBC Client Directory and Files (cont.)

Directories and Files	Description
driver/lib/sljc.rar	Resource Archive for use with J2EE and JCA Connectors.
help/*.*	Files for the HTML-based online help for the JDBC driver.
testforjdbc/lib/testforjdbc.jar	JAR file containing all the DataDirect Test classes. To use DataDirect Test, add this path to your CLASSPATH variable.
testforjdbc/testforjdbc.bat	Batch file that starts DataDirect Test.
testforjdbc/testforjdbc14.bat	Batch file that starts DataDirect Test (for use with JVM 1.4).
testforjdbc/testforjdbc.sh	UNIX shell script that starts DataDirect Test.
testforjdbc/testforjdbc14.sh	UNIX shell script that starts DataDirect Test (for use with JVM 1.4).
pool/lib/pool.jar	JAR file containing all the classes for the DataDirect Connection Pool Manager.
proxy/cmdsrv.exe	Executable that registers the SequeLink Proxy Server as a Windows service.
proxy/decrypt.bat proxy/decrypt14.bat proxy/encrypt.bat proxy/encrypt14.bat	Batch files that decrypt and encrypt the private key of the SequeLink Proxy Server certificate.
proxy/decrypt.sh proxy/encrypt.sh	UNIX shell scripts that decrypt and encrypt the private key of the SequeLink Proxy Server certificate.
proxy/proxyserver.bat proxy/proxyserver14.bat	Batch file that starts the SequeLink Proxy Server.

Table 6-1. JDBC Client Directory and Files (cont.)

Directories and Files	Description
proxy/proxyserver.sh	UNIX shell script that starts the SequelLink Proxy Server.
proxy/cert/	Directory containing demo certificates.
proxy/demos/com/ddtek/sequelink/demo/demo.properties proxy/demos/com/ddtek/sequelink/demo/GenerateDemoCertificates\$DN.class proxy/demos/com/ddtek/sequelink/demo/GenerateDemoCertificates.class	Contain Java files you can use to generate certificates.
proxy/demos/com/ddtek/sequelink/demo/KeyTool.class	Contains a Java class file that extracts certificates from a Java2 KeyStore and converts certificates to different formats.
proxy/lib/slproxy.jar	JAR file containing all classes for the SequelLink Proxy Server.
proxy/log	The directory that contains all messages logged by the SequelLink Proxy Server.
spy/lib/spy.jar	JAR file containing all Spy classes. To use Spy, add this path to your CLASSPATH variable.
sun/lib/jdbc2_0-stdext.jar	JAR file containing redistributable Sun Microsystems components for the JDBC 2.0 Optional Package.
sun/lib/jndi.jar	JAR file containing redistributable Sun Microsystems components for JNDI 1.2.
sun/lib/jta-spec1_0_1.jar	JAR file containing redistributable Sun Microsystems components for JTA 1.0.1.

Table 6-1. JDBC Client Directory and Files (cont.)

Directories and Files	Description
sun/lib/fs/fscontext.jar sun/lib/fs/providerutil.jar	JAR files containing redistributable Sun Microsystems components for the File System JNDI Provider.
sun/lib/ldap/jaas.jar sun/lib/ldap/ldap.jar sun/lib/ldap/ldapbp.jar sun/lib/ldap/providerutil.jar	JAR files containing redistributable Sun Microsystems components for the LDAP JNDI Provider.

Uninstalling the JDBC Client

To uninstall, delete the entire SequeLink installation directory.

7 Installing the .NET Client

Before you begin installation, verify that your system meets the specified requirements. Refer to [Chapter 1 “Before You Install” on page 19](#) for a list of these requirements.

Installation Directory

The Setup program creates and installs the data provider in the directory:

C:\Program Files\DataDirect\sqlnet54

Do not delete the installer after the initial installation; you may need it later to reinstall a data provider.

NOTE: The .NET data provider is automatically installed in the Global Assembly Cache (GAC).

If you install SequeLink *for* .NET Client and select to install the optional MS DTC Support components, the Client can enlist in MS DTC coordinated transactions. These components are required to call some unmanaged code.

Installing from a CD

To install the data provider on your local drive:

- 1 Place the CD into the CD drive. If the CD drive is on a network, you must mount the CD and create a mapping to the CD drive.
- 2 On Windows, the main installer window displays automatically when the CD is mounted if AutoPlay for CDs is enabled, and you have a browser available. Click the product that you want to install.

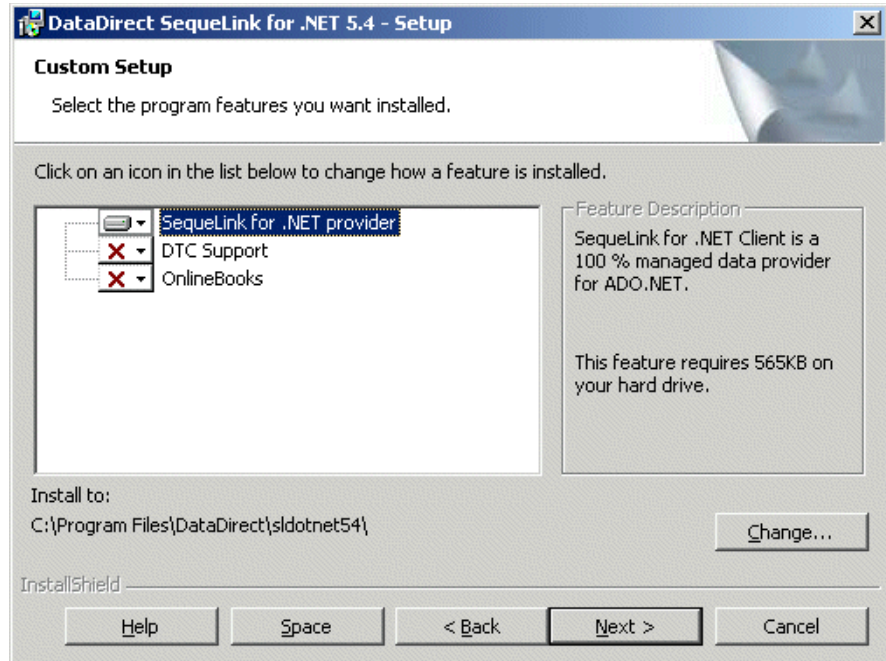
If AutoPlay for CDs is not enabled or you do not have a browser, use Windows Explorer to navigate from the root directory of the CD to the folder for the product that you want to install. Then, double-click the Setup program.

- 3 The Welcome window for the product appears. Click **Next** to continue. The License Agreement window appears.

NOTE: You can exit the Setup program at any time by clicking **Cancel**, or return to the previous window by clicking **Back**.

- 4 On the License Agreement window, perform one of the following actions:
 - Accept the agreement by clicking the appropriate option. Then, click **Next**. The Custom Setup window appears.
 - Do not accept the agreement by clicking **Cancel** to exit the installation.

- 5 The Custom Setup window allows you to install the online books, enable support for Microsoft DTC, and change the installation directory.



- To enable the MS DTC support components, click the drop-down arrow in the DTC Support icon and select "This feature, and all subfeatures, will be installed on local hard drive." The red X disappears from the DTC Support icon.
- To install the online books, click the drop-down arrow in the OnlineBooks icon and select "This feature, and all subfeatures, will be installed on local hard drive." The red X disappears from the OnlineBooks icon.
- To change the installation directory from the default location of C:\Program Files\DataDirect\sl_dotnet54\, click **Change** and select the new installation directory path. Then, click **OK** to return to the Custom Setup window.

- 6 Click **Next**. The Ready to Install the Program window appears.
- 7 Click **Install** to begin the installation.
- 8 When the product files have been copied, the Setup Completed window appears. Click **Finish** to exit Setup.

NOTES:

- If you want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC), you must reboot.
- **For Windows 98 and Windows Me users only:** After installation, you must reboot to write the data provider's path to the PATH environment variable.

After completion of the CD installation, the main installer window reappears, allowing you the option to install another DataDirect product.

A SequeLink *for* .NET program group is created as part of the installation. This program group provides the following shortcuts:

- HTML Help
- Readme
- Online Books (if you installed the books)

For information on using the data provider, refer to the *SequeLink Administrator's Guide*.

Installing from Downloaded Files

DataDirect makes the .NET Client available for either purchase or evaluation via its download site on the World Wide Web (<http://www.datadirect-technologies.com>). Installation follows essentially the same procedure as installation from a CD.

This section provides instructions for installing the SequeLink *for .NET* Client downloaded from a Web site to your local drive or to a network location.

To install the data provider from downloaded files:

- 1 Download the product zip file from the Web site.
- 2 Unzip the files, maintaining the directory structure in the zip file, to a temporary directory, for example:

C:\TEMP

- 3 From Windows Explorer, navigate to this directory; then, double-click the Setup program.
- 4 The Welcome window for the product appears. Follow [Step 3](#) through [Step 8](#) under “Installing from a CD” on page 146 to complete the installation.

NOTES:

- If you want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC), you must reboot.
- **For Windows 98 and Windows Me users only:** After installation, you must reboot to write the data provider’s path to the PATH environment variable.

For information on using the data provider, refer to the *SequeLink Developer’s Reference* and *SequeLink Administrator’s Guide*.

Installing from a Network Directory

The Setup program for the data provider can be copied to a network directory from the CD or from the directory containing downloaded files. You can then install the data provider from this directory.

- **Copying files from the CD:** Copy the entire contents from the appropriate platform directory to a network directory. For example, to install SequeLink *for* .NET, copy the contents of:

`\dotnet\WIN9XNT`

Navigate to the network directory and double-click the Setup program. The product Welcome window appears. Follow [Step 3](#) through [Step 8](#) under “Installing from a CD” on page 146 to complete the installation.

- **Copying downloaded files:** Copy all of the downloaded files from their temporary directory to a network directory. Navigate to the network directory and double-click the Setup program. The product Welcome window appears. Follow [Step 3](#) through [Step 8](#) under “Installing from a CD” on page 146 to complete the installation.

NOTES:

- If you want to use the SequeLink Client with Microsoft Distributed Transaction Coordinator (MS DTC), you must reboot.
- **For Windows 98 and Windows Me users only:** After installation, you must reboot to write the data provider’s path to the PATH environment variable.

For information on using the data provider, refer to the *SequeLink Developer’s Reference* and *SequeLink Administrator’s Guide*.

Installed Files

Table 7-1 lists all of the SequeLink *for* .NET files installed and a brief description of each.

Table 7-1. SequeLink for .NET Files

File	Description
DDTek.Sequelink.dll	.NET data provider
DDTek.Sequelink.XML	.NET data provider Intellisense help file
DDTek.lic	Provider license file
Extend.exe	EVAL extension tool
slreadme.txt	ReadMe
The following files will be placed in the <InstallDir>\Help directory	
*.css	HTML-based help files
*.html	
/images/*.*	
/wwhelp/*.*	
The following files will be placed in the <InstallDir>\Books directory	
*.pdf	SequeLink online books

8 Installing and Viewing Online Books

The DataDirect CD and the DataDirect Technologies Web site provide online books for the DataDirect Product Series. In addition, they provide Adobe Acrobat Reader, which is required to view the online books.

Most of the DataDirect product installers allow you to install the online books along with the product. In this case, the books are installed in the product's installation directory in a directory named books. To install the books when installing the product, remember to select the Online Books component.

This chapter explains how to:

- Install the online books without using a product installer
- View the online books
- Customize the online books
- Install Acrobat Reader from the CD

NOTE: Instructions for downloading the online books and Acrobat Reader from the Web are provided on the DataDirect Technologies Web site:

<http://www.datadirect-technologies.com/download/docs/dochome.asp>

About DataDirect's Online Books

You can view the online books from the CD or install them to a local or network location. You must view the online books using Acrobat Reader 4.x, or later, licensed from Adobe Systems. The DataDirect CD includes Acrobat Reader 5.x with Search for Windows, and Acrobat Reader 4.x with Search for UNIX (except Linux, which does not include the search capability).

You can print the online books to create high-quality, hard-copy books. While viewing an online book in the Acrobat Reader, select **File / Print** to print the entire file (book), the current page, or a range of pages.

Installing the Online Books

If you want to install the online books without using a product installer, you must maintain the same directory structure that is on the CD. You can install all the online books or specific ones:

- **To install all product books**, copy the entire \books directory to your local or network drive.
- **To install a specific set of books**, copy that book's directory structure (beneath the \books directory) to your local or network drive. For example, to install the SequeLink books, you would copy the entire slnk5_4 directory beneath the books directory (\books\slnk5_4).

Viewing the Online Books

To help you navigate through a DataDirect product's online books, an Acrobat file, called **books.pdf**, is provided. This file lists each online book provided for a product. We recommend that you open this file first and, from this file, open the book you want to view.

If you want to keep the books.pdf file open until you choose to close it, go to the Reader menu bar and select **File / Preferences / General**. Clear the check box for the **Open Cross-Document Links in Same Window** option.

NOTE: If you do not already have Acrobat Reader installed, you must install it before you can view the books. See ["Installing Acrobat Reader" on page 160](#) for details.

To view the online books:

1 Start Acrobat Reader in one of the following ways:

- For **Windows**, click **Start** on the Taskbar and select **Programs**. Select the Adobe Acrobat folder that was created during the installation of the Acrobat Reader, and click the **Acrobat Reader** icon.
- For **UNIX**, you can start the Reader from the command line by using its launch script:
 - If the launch script directory is in the search path set by the PATH environment variable, type the following to start Acrobat Reader:

```
% acroread
```
 - If the launch script directory is not set in the PATH environment variable, type:

```
% /acrobathreaderinstalldir/bin/acroread
```

- 2 On the Reader menu bar, select **File / Open**, and choose the path where the books.pdf file resides. For example, for SequeLink:

D:\Program Files\DataDirect\slodbc54\books\slnk\books.pdf

or for DataDirect Connect *for* ODBC:

D:\Program Files\DataDirect\books\odbc\books.pdf

- 3 Click **Open**.

While viewing the online books, you can use *hypertext links*, perform *text searches*, and use *bookmarks*.

Using Hypertext Links

Cross-reference links within online books allow you to jump to related topics and other books within a product's documentation set. These links are displayed in blue and allow you to jump to a cross reference with a single click of the mouse. Some links take you to a URL on the DataDirect Technologies World Wide Web site (if you have an HTML browser installed on your computer). The page numbers in the table of contents and index are also hypertext links.

Performing Text Searches

With Acrobat Reader with Search, you can perform full-text, boolean searches across all of a product's online books. You type a query and Acrobat Reader displays the matching text.

NOTE: If you will be performing searches across online books on the CD over a non-UNIX network, you must explicitly map to the network drive that contains the CD to enable the Search tool.

The search indexes for DataDirect online books were created with the word stemming search option. This option finds words

that share a stem with a search word. For example, if you search for “programming,” the Reader will also find “program” and “programs.” The search indexes were not created using the Sounds Like and Case Sensitive options. Therefore, you cannot use these options when searching online books. Finally, numbers are not included in the search index and will not be found by a search.

Using Bookmarks

All of the online books contain predefined bookmarks that make it easy for you to quickly jump to a specific topic. By default, the bookmarks are displayed to the left of each online book. For more information about using Acrobat Reader, refer to the online help for the product.

Customizing the Online Books

If you have Adobe Acrobat Exchange 3.x or Adobe Acrobat 4.0 or higher, you can customize the online books to reflect information specific to your work environment. For example:

- **Notes.** You can embed notes within an online book to help identify important procedures or helpful hints specific to your organization. A note appears in the online books as a note icon; double-click the icon to view the embedded note text.
- **Bookmarks.** You can also add customized bookmarks to an online book to help you find topics even faster. Bookmarks can be used to jump to topics within a book, or to other PDF files.

For specific instructions on how to customize a book, refer to the Acrobat documentation.

About Acrobat Reader

You must view the online books using Acrobat Reader 4.x, or higher, licensed from Adobe Systems. This CD includes the English version of Acrobat Reader 5.x with Search for Windows 9x, Windows Me, Windows NT, Windows 2000, Windows Server 2003, and Windows XP. It includes the English version of Acrobat Reader 4.x with Search for Solaris, IBM-AIX, and HP-UX; Acrobat Reader 5.x is not available for UNIX at this time. The CD also includes Acrobat Reader 4.x without search for the Linux platform; Acrobat Reader 4.x with Search is not available for Linux at this time.

DataDirect Technologies software products may support platforms that are not supported by the Reader. To view the online books for these products, you must do so on a platform that the Reader does support.

NOTE: For the latest information about supported platforms for Acrobat Reader, refer to the Adobe Web site at:

<http://www.adobe.com/prodindex/acrobat/readstep.html>

Product Requirements for Acrobat Reader

5.x on Windows Platforms

- Pentium processor-based personal computer
- Microsoft Windows 95 OSR 2.0, Windows 98 SE, Windows Millennium Edition, Windows NT 4.0 with Service Pack 5, Windows 2000, Windows Server 2003, or Windows XP

- 64 MB of RAM
- A hard disk with at least 24 MB of free disk space

4.x on Sun SPARCstation Workstations

- Solaris 2.3 or later operating system (Acrobat Reader will not run on SunOS, Solaris 2.0, 2.1, or 2.2)
- Sun OpenWindows 3.0 or later, Motif 1.2.3 or later, OpenLook 3.0, or Common Desktop Environment (CDE) 1.0 or later
- A hard disk with at least 12 MB of free disk space
- 32 MB of RAM

4.x on HP Workstations

- HP 9000 Series Workstations model 700 or 800
- HP-UX 9.0.3 or later operating system
- X Window System X11R5 running HP-VUE or Common Desktop Environment (CDE) 1.0 or later
- 32 MB of RAM
- A hard disk with at least 12 MB of free disk space

4.x on IBM-AIX Workstations

- RS/6000 workstation
- AIX 4.2.1 or later operating system
- Common Desktop Environment (CDE) 1.0 or later, or Motif
- 32 MB of RAM
- A hard disk with at least 12 MB of free disk space

4.x on Linux

- Red Hat Linux 5.1 or later (non-glibc versions)
- 32 MB of RAM
- A hard disk with at least 12 MB of free disk space

Installing Acrobat Reader

The CD contains Acrobat Reader 5.x. To view the online books, you must have Acrobat Reader 4.x or later installed on a local or network location. You cannot start the Reader directly from the CD. If you already have a copy of the correct version of Acrobat Reader with Search installed on your machine, you can skip the procedure documented in this section.

Network Administrators: To allow users to install Acrobat Reader from a network location, copy the entire `\Readers\platform` directory and its contents from the CD into a directory on the network server.

Windows Platforms

The instructions to install the Reader are the same whether you install it locally or to the network.

To install Acrobat Reader:

- 1 Insert the DataDirect CD into the CD-ROM drive. If the CD-ROM drive is on a network, you must mount the CD and create a mapping to the CD-ROM drive.
- 2 Start the Setup program as follows, substituting the appropriate CD-ROM drive letter if necessary.

From Windows Explorer, navigate to the drive and directory containing the Reader; then, double-click the self-extracting program:

drive:\Readers\Windows\rp505enu.exe

- 3 Follow the on-screen instructions to complete the installation.

UNIX Platforms

To install Acrobat Reader on UNIX:

- 1 Insert the CD into the CD-ROM drive.
- 2 Mount the drive on a local workstation as a file system.

NOTE: To mount a CD-ROM drive, you must know your system's root password. If you do not know the password, contact your system administrator.

The following examples assume that the /cdrom mount point is available on your UNIX system. If not, replace /cdrom with a valid mount point.

- a Open a UNIX shell.
- b Change to the root user and type the root password:

```
# su - root
Password: root_password
```

- c On Solaris, by default the CD-ROM drive mounts automatically when you insert the CD. The other UNIX platforms supported do not automatically mount the CD by default. If your workstation is not configured to

automatically mount a CD, you must enter the command for mounting the drive.

- For HP-UX, enter:

```
# /usr/sbin/pfs_mountd&
# /usr/sbin/pfsd&
# pfs_mount -o xlat=unix /dev/rdisk/deviceName
/cdrom
```

where *deviceName* is the device name assigned to your CD-ROM drive. The device name can be found using the HP-UX tool *sam*. When installation is complete, unmount the CD-ROM with the command:

```
# /usr/sbin/pfs_umount /cdrom
```

For example, if the device name for your CD-ROM drive is */dev/rdisk/c0t4d0*, and you want to mount it over the directory */cdrom*, you would enter the following command:

```
# pfs_mount -o xlat=unix /dev/rdisk/c0t4d0 /cdrom
```

- For IBM-AIX, enter:

```
# mount -r -v cdrfs /dev/device /cdrom
```

where *device* is the device name assigned to your CD-ROM drive. The device name can be found using the AIX tool *smit*.

- For Linux, enter:

```
# mount -r -t iso9660 /dev/device /mnt/cdrom
```

where *device* is the device name assigned to your CD-ROM drive.

- 3 Verify that the drive containing the CD is mounted by entering:

```
# mount
```

You should see a list of mounted file systems, including the CD-ROM drive you just mounted.

- 4 Copy the appropriate Acrobat Reader compressed file (.Z file) from the CD to your UNIX machine:
 - For AIX, /readers/Aix/AIXRS.tar.Z
 - For HP-UX, /readers/Hpux/HPUXRS.tar.Z
 - For Linux, /readers/Linux/ILINXR.tar.Z
 - For Solaris, /readers/Solaris/SSOLR.tar.Z
- 5 Uncompress the file by entering:

```
uncompress compressed_filename
```
- 6 Untar the .tar file that was extracted from the compressed file:

```
tar -xvf filename.tar
```
- 7 Use the instructions in the Instguid.txt file to complete the Acrobat Reader installation. This file is one of the files that was extracted from the .tar file.

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