

SYBASE®

Installation Guide

**Software Developer's Kit and
Open Server™**

15.0

[UNIX]

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About This Book

Audience

This book is for system administrators or the persons responsible for installing the Software Developer's Kit (SDK) or Open Server™.

How to use this book

This guide contains these chapters:

- Chapter 1, "Before You Begin," contains preinstallation information and tasks.
- Chapter 2, "Installing the SDK and Open Server," describes how to install the SDK and Open Server.
- Chapter 3, "Post-Installation Tasks," provides information about the tasks you must perform after installing the component software for the SDK and Open Server.

Related documents

You can find configuration and other information in these related documents:

- Open Server *Release Bulletin* version 15.0 for UNIX platforms contains important last-minute information about Open Server.
- Software Developer's Kit *Release Bulletin* version 15.0 for UNIX platforms contains important last-minute information about Open Client™ and SDK.
- jConnect for JDBC *Release Bulletin* version 6.05 contains important last-minute information about jConnect™ for JDBC™.
- The Open Client and Open Server *Configuration Guide* for UNIX platforms contains information about configuring your system to run Open Client and Open Server products.
- The Open Client Client-Library/C *Reference Manual* contains reference information for Open Client Client-Library™.
- The Open Client Client-Library/C *Programmers Guide* contains information about how to design and implement Client-Library applications.
- The Open Server *Server-Library/C Reference Manual* contains reference information for Open Server Server-Library.

-
- The Open Client and Open Server *Common Libraries Reference Manual* contains reference information for CS-Library, a collection of utility routines that are useful in both Client-Library and Server-Library applications.
 - The Open Client and Open Server *Programmers Supplement* contains platform-specific information for programmers using Open Client and Open Server products. This document includes information about:
 - Compiling and linking an application
 - Sample programs that are included with Open Client products
 - Routines that have platform-specific behaviors
 - The Adaptive Server® Enterprise ODBC Driver by Sybase *User's Guide* for Windows and Linux, provides information on how to access data from Adaptive Server Enterprise on Windows and Linux platforms, using the Open Database Connectivity (ODBC) Driver.
 - The jConnect for JDBC *Installation Guide* contains installation information for jConnect for JDBC.
 - The jConnect for JDBC *Programmers Reference* contains information for programmers using jConnect.

Other sources of information

Use the Sybase® Getting Started CD, the SyBooks™ CD, and the Sybase Product Manuals Web site to learn more about your product:

- The Getting Started CD contains release bulletins and installation guides in PDF format, and may also contain other documents or updated information not included on the SyBooks CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader, which you can download at no charge from the Adobe Web site using a link provided on the CD.
- The SyBooks CD contains product manuals and is included with your software. The Eclipse-based SyBooks browser allows you to access the manuals in an easy-to-use, HTML-based format.

Some documentation may be provided in PDF format, which you can access through the PDF directory on the SyBooks CD. To read or print the PDF files, you need Adobe Acrobat Reader.

Refer to the SyBooks *Installation Guide* on the Getting Started CD, or the *README.txt* file on the SyBooks CD for instructions on installing and starting SyBooks.

- The Sybase Product Manuals Web site is an online version of the SyBooks CD that you can access using a standard Web browser. In addition to product manuals, you will find links to EBFs/Maintenance, Technical Documents, Case Management, Solved Cases, newsgroups, and the Sybase Developer Network.

To access the Sybase Product Manuals Web site, go to Product Manuals at <http://www.sybase.com/support/manuals/>.

Sybase certifications on the Web

Technical documentation at the Sybase Web site is updated frequently.

❖ Finding the latest information on product certifications

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click Certification Report.
- 3 In the Certification Report filter select a product, platform, and timeframe and then click Go.
- 4 Click a Certification Report title to display the report.

❖ Finding the latest information on component certifications

- 1 Point your Web browser to Availability and Certification Reports at <http://certification.sybase.com/>.
- 2 Either select the product family and product under Search by Base Product; or select the platform and product under Search by Platform.
- 3 Select Search to display the availability and certification report for the selection.

❖ Creating a personalized view of the Sybase Web site (including support pages)

Set up a MySybase profile. MySybase is a free service that allows you to create a personalized view of Sybase Web pages.

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Click MySybase and create a MySybase profile.

Sybase EBFs and software maintenance

❖ Finding the latest information on EBFs and software maintenance

- 1 Point your Web browser to the Sybase Support Page at <http://www.sybase.com/support>.
- 2 Select EBFs/Maintenance. If prompted, enter your MySybase user name and password.
- 3 Select a product.
- 4 Specify a time frame and click Go. A list of EBF/Maintenance releases is displayed.

Padlock icons indicate that you do not have download authorization for certain EBF/Maintenance releases because you are not registered as a Technical Support Contact. If you have not registered, but have valid information provided by your Sybase representative or through your support contract, click Edit Roles to add the “Technical Support Contact” role to your MySybase profile.

- 5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

Conventions

Table 1: Syntax conventions

Key	Definition
command	Command names, command option names, utility names, utility flags, and other keywords are in sans serif font.
<i>variable</i>	Variables, or words that stand for values that you fill in, are in <i>italics</i> .
{ }	Curly braces indicate that you choose at least one of the enclosed options. Do not include braces in your option.
[]	Brackets mean choosing one or more of the enclosed items is optional. Do not include brackets in your option.
()	Parentheses are to be typed as part of the command.
	The vertical bar means you can select only one of the options shown.
,	The comma means you can choose as many of the options shown as you like, separating your choices with commas to be typed as part of the command.

Accessibility features

This document is available in an HTML version that is specialized for accessibility. You can navigate the HTML with an adaptive technology such as a screen reader, or view it with a screen enlarger.

Open Client and Open Server documentation has been tested for compliance with U.S. government Section 508 Accessibility requirements. Documents that comply with Section 508 generally also meet non-U.S. accessibility guidelines, such as the World Wide Web Consortium (W3C) guidelines for Web sites.

Note You might need to configure your accessibility tool for optimal use. Some screen readers pronounce text based on its case; for example, they pronounce ALL UPPERCASE TEXT as initials, and MixedCase Text as words. You might find it helpful to configure your tool to announce syntax conventions. Consult the documentation for your tool.

For information about how Sybase supports accessibility, see Sybase Accessibility at <http://www.sybase.com/accessibility>. The Sybase Accessibility site includes links to information on Section 508 and W3C standards.

If you need help

Each Sybase installation that has purchased a support contract has one or more designated people who are authorized to contact Sybase Technical Support. If you cannot resolve a problem using the manuals or online help, please have the designated person contact Sybase Technical Support or the Sybase subsidiary in your area.



Before You Begin

This chapter provides information about system requirements and the tasks you must complete before you install Software Developer's Kit (SDK) and Open Server.

Topic	Page
Supported platforms	1
SDK and Open Server components	2
System requirements for the SDK and Open Server	7
Pre-installation instructions for the SDK and Open Server	9

Supported platforms

Open Client version 15.0 works with Adaptive Server 15.0 on these platforms:

- APPLE Mac OS X 10.5 or later on Intel, 32-bit
- HP-UX 11.11 (or HP-UX 11iv1.0) on PA-RISC
- HP-UX 11.23 on Itanium
- IBM RS/6000 AIX 5.2
- Linux RH 3.0 x86
- Linux RH 4.0 on Itanium 64-bit
- Linux RH 3.0 on POWER
- Linux RH 3.0 on AMD64 (Opteron)/EMT64
- Sun Solaris 8 (SPARC) 32-bit and 64-bit
- Sun Solaris 10 x64 32-bit and 64-bit

For a complete list of the supported platforms, their operating systems, and supported protocols, see “Hardware and software requirements” on page 7.

Note For the most current information about certified platforms, see “Sybase certifications on the Web” on page vii.

SDK and Open Server components

The following sections summarize the components of the SDK and Open Server products.

SDK components

SDK 15.0 is a set of libraries and utilities that you can use to develop client applications and includes the following components:

- Open Client version 15.0 – an API, a set of libraries used to develop and deploy C-language applications that access Adaptive Server data. Included on the installation medium are:
 - Drivers for integrating Client-Library and Open Server applications with directory and security services
 - Sample programs for Client-Library and DB-Library™
- Open Client Embedded SQL™/C version 15.0 – the precompiler that allows you to embed Transact-SQL® statements into C-language applications. Also included:
 - Sample programs for Embedded SQL/C
- Open Client Embedded SQL/COBOL version 15.0 – the precompiler that allows you to embed Transact-SQL statements into COBOL-language applications. Also included:
 - Sample programs for Embedded SQL/COBOL

- Sybase Adaptive Server ODBC Driver by Sybase, version 15.0.

Note Adaptive Server ODBC Driver is only available on the Linux x86 (32-bit) platform. It is not available on other platforms, including Linux on POWER (32-bit and 64-bit).

- Language modules – provide system messages and datetime formats to help you localize your applications. Default installation includes only the U.S. English language module and the following character sets supported by the U.S. English language module:
 - IBM code page 437 (cp437)
 - IBM code page 850 (cp850)
 - ISO 8859_1 (iso_1)
 - ISO 8859_15 (iso_15: Latin9 - western European)
 - Unicode UTF-8 encoding (utf8)
 - Macintosh Roman (mac)
 - Hewlett-Packard Roman 8 and Roman 9 (roman8 and roman9)

You can purchase additional language modules for these languages through Sybase:

- Chinese
 - French
 - German
 - Japanese
 - Korean
 - Polish
 - Portuguese
 - Spanish
 - Thai
- jConnect for JDBC 6.05 – the Java implementation of the Java JDBC standard, which provides Java developers with native database access in multitier and heterogeneous environments. For jConnect hardware and software requirements and installation instructions, refer to the *Installation Guide* for jConnect for JDBC.

- Extended Architecture (XA) Interface Library for Adaptive Server Distributed Data Manager. Also included are sample programs for XA.

Note XA is available on all platforms except Linux x86 (32-bit) and Linux on POWER (32-bit and 64-bit).

SDK libraries and utilities

Table 1-1 lists the libraries and utilities that are included with the SDK.

Note For jConnect libraries and utilities, see the jConnect for JDBC *Installation Guide*.

Table 1-1: SDK libraries and utilities for UNIX platforms

SDK	Open Client	Embedded SQL/C	Embedded SQL/COBOL
<i>Libraries</i>			
Client-Library	x	x	x
CS-Library	x	x	x
DB-Library	x	n/a	n/a
Bulk-Library	x	n/a	n/a
XA-Library	x	n/a	n/a
Net-Library™	x	n/a	n/a
Common-Library	x	n/a	n/a
LDAP	x	n/a	n/a
SSL	x	n/a	n/a
Kerberos	x	n/a	n/a
<i>Utilities</i>			
bcp, defncopy, dscp, dsedit, isql, certauth, certpk12, certreq, extractjava, installjava, pwdcrypt	x	n/a	n/a
cpre	n/a	x	n/a
cpre64 (non-reentrant version), cpre_r64 (reentrant version)	n/a	x	n/a
cobpre	n/a	n/a	x
cobpre64 (non-reentrant version), cobpre_r64 (reentrant version)	n/a	n/a	x

LEGEND: x = available; n/a = not available on this component.

Open Server components

Open Server is a set of APIs and supporting tools that you can use to create custom servers to respond to client requests submitted through Open Client or jConnect routines. Open Server includes the following components:

- Open Server version 15.0 – a set of APIs and supporting tools. Included on the installation medium are:

- Drivers for integrating Client-Library and Open Server applications with directory and security services
- Sample programs for Server-Library and Client-Library
- Language modules – provide system messages and datetime formats to help you localize your applications. Default installation includes only the U.S. English language module and the following character sets supported by the U.S. English language module:
 - IBM code page 437 (cp437)
 - IBM code page 850 (cp850)
 - ISO 8859_1 (iso_1)
 - ISO 8859_15 (iso_15: Latin9 - western European)
 - Unicode UTF-8 encoding (utf8)
 - Macintosh Roman (mac)
 - Hewlett-Packard Roman 8 and Roman 9 (roman8 and roman9)

You can purchase (from Sybase) additional language modules for these languages:

- Chinese
- French
- German
- Japanese
- Korean
- Polish
- Portuguese
- Spanish
- Thai

Open Server libraries and utilities

Table 1-2 on page 7 lists the libraries and utilities that are installed with Open Server.

Table 1-2: Open Server libraries and utilities

Libraries	<ul style="list-style-type: none"> • Server-Library • Client-Library • CS-Library • Net-Library • Bulk-Library • Common-Library • LDAP • SSL • Kerberos
Utilities	<ul style="list-style-type: none"> • bcp • defncopy • dsedit • dscp • isql • certauth • certpk12 • certreq • pwdcrypt

System requirements for the SDK and Open Server

This section contains the following information:

- Hardware and software requirements
- Disk space requirements

Hardware and software requirements

Table 1-3 on page 8 shows the system hardware and software requirements for SDK and Open Server.

Table 1-3: System requirements for SDK and Open Server 15.0

Hardware	Operating system	Supported protocols
IBM RS/6000 32-bit and 64-bit	AIX 5.2 or later	TCP
HP-UX 32-bit and 64-bit	HP-UX 11.11 or later	TCP
HP Itanium 32-bit and 64-bit	HP-UX 11.23 or later	TCP
Linux x86 32-bit	RHEL 3.0 or later	TCP
Linux on POWER 32-bit and 64-bit	RHEL 3.0 or later	TCP
Linux AMD64 (Opteron)/EM64T	RHEL 3.0 or later	TCP
Sun Solaris (SPARC) 32-bit and 64-bit	Solaris 8 or later	TCP
Sun Solaris x64 (Opteron) 32-bit and 64-bit	Solaris 10 or later	TCP

Note For the required patches that must be installed before installation, be sure to check the relevant release bulletin for UNIX platforms. For the latest patches available, contact technical support for the appropriate platform.

Disk space requirements

The required installation disk space for each platform will vary from 250MB to 450MB, and depends on the following:

- Product installed – SDK or Open Server
- Architecture – 32-bit or 64-bit
- Platform – IBM AIX, HP-UX, HP Itanium, Linux/Intel, Linux on POWER, or Sun Solaris.
- Platform – IBM AIX, HP-UX, HP Itanium, Linux/Intel, Linux on POWER, or Sun Solaris.
- Type of installation – Typical, Full, or Custom

Disk space required for installation

To ensure that you have sufficient disk space for the installation, a Product Summary window displays every component that will be installed and the total disk space required for all the selected components. If the target directory does not have sufficient disk space, the space-required and space-available information is displayed. If you continue without sufficient disk space, an error occurs that stops the installation.

jConnect requirements

jConnect can be installed as a separate product. It requires approximately 16MB for jConnect 6.05 and 10MB for the jConnect default options.

Pre-installation instructions for the SDK and Open Server

The following tasks describe how to prepare for installing the SDK or Open Server products on your system.

Note The instructions in this document do not apply to installing the SDK included in the Adaptive Server Enterprise Suite. Those instructions are in the Adaptive Server Enterprise *Installation Guide*.

❖ Preparing for installation

- 1 Read the SDK *Release Bulletin* version 15.0 or the Open Server *Release Bulletin* version 15.0 for UNIX platforms for the latest information about the products you are installing.

Your Sybase product shipment includes printed release bulletins; they are also available on the Sybase Web site at <http://www.sybase.com/support/techdocs>.

- 2 Create a “sybase” account on your system to perform all installation tasks. The System Administrator usually sets up this account, as this requires “administrator” privileges.
- 3 Log in to the machine as the “sybase” user.

Maintain consistent ownership and privileges for all files and directories. A single user—the Sybase system administrator with read, write, and execute permissions—should perform all unload, installation, upgrade, and setup tasks.

Warning! Because the installation program does not check for permissions before installing the product, be sure to have your permissions set before installation. If you do not have the proper permission, the installer logs exceptions in the log file.

The “sybase” user must have read/write/execute privileges from the top (or root) of the disk partition or operating system directory down to the specific physical device or operating system files.

- 4 Identify or create a directory location for the Sybase installation directory, where you are going to unload the SDK and Open Server products.
- 5 Verify that the location for the Sybase installation has sufficient space to unload the software. See “System requirements for the SDK and Open Server” on page 7.

Note When using a Chinese, Japanese, or Korean locale, Sybase recommends that you set the `JAVA_FONTS` to the directory where the locale’s fonts are installed. This ensures that InstallShield uses the correct font.

The installation program automatically sets most of the environment variables. You must set others using the `SYBASE.csh` or `SYBASE.sh` scripts file located in `$SYBASE`. You must also source the environment before using the product.

When you have reviewed and verified installation requirements and have completed pre-installation tasks, you are ready to install the SDK and Open Server.

Pre-installation instructions for Linux on POWER (32-bit and 64-bit)

These instructions are for Linux on POWER (32-bit and 64-bit) users only. All other platforms users may skip this section.

Linux PowerPC runtime libraries to run Open Server, SDK, and Adaptive Server executables

Open Server and the SDK are compiled and linked with Visual Age compiler XLC version 7.0. Prior to installation of the SDK or Open Server, you must install runtime libraries for the Visual Age compiler on your system. Otherwise, you will receive an installation error.

Before installing the runtime libraries, you must verify that Visual Age runtime packages were installed previously by issuing the following command:

```
rpm -q vacpp.rte-7.0.0-0
```

If a “vacpp.rte-7.0.0-0” message is returned, Visual Age runtime packages were installed previously, and you may proceed with the installation of the SDK or Open Server.

If a “package vacpp.rte-7.0.0-0 is not installed” message is returned, Visual Age runtime packages were not installed. You must then download the XLC v7.0 runtime executables from the IBM website at <http://www-1.ibm.com/support/docview.wss?uid=swg24007906>.

Follow the instructions on the Web page to download and install the packages on your system. Be sure to select the installation package for Red Hat 3.0 operating systems from the download table. When installation of XLC Version 7.0 runtime libraries is complete, you may proceed with the installation of the SDK or Open Server.

Installing the SDK and Open Server

This chapter describes how to install SDK and Open Server using InstallShield and the command-line commands.

Topic	Page
Using InstallShield for installation	13
SDK or Open Server installation methods	16
Uninstalling the SDK or Open Server	16
Command-line options	28

Using InstallShield for installation

This section describes how to install SDK or Open Server components using InstallShield. These procedures assume that:

- The target computer meets the requirements outlined in “System requirements for the SDK and Open Server” on page 7.
- You have completed the list of tasks for SDK and Open Server in “Pre-installation instructions for the SDK and Open Server” on page 9.

InstallShield is a Java-based installation program that uses XML input. It unloads and installs all Sybase components using a consistent installation interface across all platforms. The installation program creates the target directory (if necessary) and unloads all the selected components into that directory.

You have three options for installing Sybase components from the distribution media using the installation program:

- 1 GUI mode, which allows you to install the components using the InstallShield interface.

- 2 Console mode, which allows you to install components in a command-line environment.
- 3 Response file, which allows you to record or create a response file. Using a response file, you can install SDK or Open Server in two different modes:
 - a Silent, which allows you to install the product without any interaction required on your part. This is convenient if you are performing identical installation on multiple machines.
 - b Interactive installation using response file, which allows you to install interactively but with all the responses already filled in, so that you can accept all the default values and install SDK or Open Server according to the responses in the response file. This is convenient if several sites are installing SDK or Open Server and must conform to a standard installation.

Each of these options is described in the following sections.

Note If you encounter problems during installation, check the installation log file to see a record of the installation process. The file is located in `$$YBASE/log.txt`, where `$$YBASE` is the SDK or Open Server installation directory.

Installing on a remote machine

To install on a remote machine from the local machine, you must set permission on the local machine for the remote machine to display the InstallShield windows on the local machine.

❖ Granting permission for a remote machine to run InstallShield in GUI mode

- 1 Enter the following command at the UNIX prompt of your *local* machine:

```
xhost +remote_machine
```

where *remote_machine* is the machine on which you are running InstallShield.

- 2 On the remote machine where you are installing the software, verify that the `DISPLAY` environment variable is set to the local machine where you are viewing the InstallShield windows and output. If InstallShield cannot find your `DISPLAY` variable, you cannot run the GUI.

- For C shell:

```
setenv DISPLAY host_name:0.0
```

- For Bourne shell:

```
DISPLAY=host_name:0.0; export DISPLAY
```

where *host_name* is the name of the local (display) machine.

Note For remote installations, you must be able to rsh into the machine on which you are installing the software. If you cannot do this, add the installation host to your *.rhosts* file.

Installing using a different font

When installing in GUI mode, you can specify the installer display font by using the `-font` command line option or the *font.ini* file. This option is useful when your Java virtual machine (JVM) is unable to correctly pick the font to display for your locale, and the product installers display unintelligible characters.

Note If you use both the `-font` command line option and the *font.ini* file, the font specified using the `-font` command line option takes precedence.

Using the `-font` command line option

You can modify the default installer display font when you start the InstallShield. For example:

```
./setup -is:javaconsole -font "FZFangSong"
```

The example uses the Chinese font FZFangSong and requires that the LANG environment variable is set to a Chinese locale such as zh_CN.

To ensure that characters are displayed correctly, the JAVA_FONTS environment variable must point to the location of the font files. Otherwise, the installer terminates with this message:

```
Invalid command line option: unable to find fontname  
font.
```

```
Make sure the font name is correct and JAVA_FONTS  
environment variable is set.
```

Using the *font.ini* file

Another way to specify the InstallShield display font is to create a *font.ini* file in the installer image root directory. The *font.ini* file specifies the font name and the font location. For example:

```
#Set to Kochi Mincho font
font=Kochi Mincho
path=/usr/share/fonts/ja/TrueType
```

The example uses the Japanese font Kochi Mincho and requires that the LANG environment variable is set to a Japanese locale such as ja_JP. If the font or the font path specified in the *font.ini* file is incorrect, the installer terminates with this message:

```
Error: Unable to find fontname font.
Make sure font name and path are correct in font.ini
file.
```

SDK or Open Server installation methods

Although you can verify product installation at the end of this process, you need to perform additional configuration procedures before you can use the products. See “Configuring the components” on page 30 for more information.

Note SDK/Open Server binaries like isql and bcp share the same name between the 32-bit and 64-bit products. Installing Adaptive Server, SDK, or Open Server 64-bit products with other Sybase 32-bit products in the same Sybase installation, overwrites the 32-bit binaries causing issues with the peaceful coexistence of multiple products.

From Adaptive Server 15.0.2 and SDK/Open Server 15.0 ESD#9, the 64-bit binaries are replaced with 32-bit binaries on all 64-bit UNIX platforms to retain the peaceful coexistence of multiple products in the same Sybase installation.

Installing 15.0 on the same machine as a pre-15.0 Adaptive Server

To allow you to install SDK or Open Server 15.0 in a different directory but on the same machine as a pre-15.0 Adaptive Server installation, and to prevent the previous version from being affected, perform these steps:

- 1 Shut down Adaptive Server:
 - Use `isql` to log in to an Adaptive Server with System Administrator privileges:

```
isql -Usa -Ppassword -Sserver_name
```
 - Enter the following:

```
1> shutdown
2> go
```
- 2 Complete the SDK or Open Server installation as documented in the following installation sections.
- 3 Edit the `SYBASE.csh` or `SYBASE.sh` script file to comment out the pre-15.0 SDK and Open Server environment information.
- 4 Start Adaptive Server at the command line using the `RUN_server_name` file that contains information required to restart the server:

```
$SYBASE/$SYBASE_ASE/install/startserver [-f
RUN_server_name file]
```

For more information about starting and stopping Adaptive Server, see the Adaptive Server Enterprise *Configuration Guide* for UNIX.

Mount the CD

Insert the SDK or Open Server CD in the CD drive, and if necessary, mount the CD. If you want to install both products, repeat this procedure using the appropriate CD, following the installation of the first product.

Note The location of the mount command is site-specific and may differ from the instructions shown here. If you cannot mount the CD drive using the path shown, check your operating system documentation or contact your System Administrator.

- For HP-UX and HP Itanium:

Log out, log in as “root,” and mount the CD using the following command:

```
mount -F cdfs -o ro,rr /device_name /cdrom
```

Then, log out and log in again as “sybase.”
- For IBM:

Log in as “sybase,” and mount the CD:

```
/usr/sbin/mount -v cdrfs -r device_name /cdrom
```

where

- *device_name* is the CD drive device name.
- */cdrom* is the name of the directory where the CD is to be mounted.
- For Sun Solaris platforms:

The operating system automatically mounts the CD. Log in as “sybase.” If you receive CD-reading errors, check your operating system kernel to make sure the ISO 9660 option is turned on. On Sun Solaris, the CD drive device name is */cdrom/cdromx*, where *x* is the number of the CD device.

- For Linux platforms:
The operating system automatically mounts the CD.

Installing in GUI mode

The following steps are required to perform the installation in GUI mode.

❖ Installing in GUI mode

- 1 Mount the CD and “cd” into the directory as described in the previous section “Mount the CD.”
- 2 Verify that the drive on which you install the products has enough disk space for the products being installed, and at least 10MB extra disk space for the installation program. The program frees this space after the installation is complete.

If InstallShield does not have sufficient temporary space to run, it will prompt you to set the `-is:tempdir` parameter, which should be set to the absolute path of a directory that has sufficient space, for example:

```
./setup -is:tempdir tmp_dir
```

where *tmp_dir* is the default temporary directory, which varies by platform. Sun Solaris and HP use */var/tmp*, Linux uses */tmp*, and the remaining UNIX platforms use the C runtime library constant *P_tmpdir*.

- 3 At the UNIX prompt, start InstallShield:
 - For IBM, Linux, and Sun Solaris:

```
cd /cdrom/cdromn/pathname
```

```
./setup
```

- For HP-UX and HP Itanium:

```
cd /cdrom/pathname
./setup
```

where:

- *cdrom/cdromn* is the directory (mount-point) you specified when mounting the CD drive. For example, on Sun Solaris the mount-point can be *cdrom/cdrom0*.
- *setup* is the executable file name to install SDK and Open Server products.

This unloads the components in GUI mode. The Welcome window appears next.

- 4 Click Next to proceed with the installation.
- 5 Read the License and Copyright Agreement. Using the drop-down list at the top of the window, select the geographic location where you are installing to display the agreement appropriate to your region. Select “I agree” and click Next.

You must agree to the license and copyright agreement before you can continue.

- 6 In the Installation Directory window, click Next to accept the default directory for the installation, or enter a different directory where you want to install the products. One of the following occurs:

- If the installation directory you chose does not exist, InstallShield prompts:

```
The directory does not exist. Do you want to
create it?
```

Click Yes.

- If the installation directory exists, InstallShield prompts:

```
You have chosen to install into an existing
directory. Any older versions of the products you
choose to install that are detected in this
directory will be replaced. DO NOT install into
a pre-15.0 ASE release area as this will break
ASE. Do you want to continue with installation
into this directory?
```

If you click Yes and the older products were not installed with InstallShield (for example, if you installed a version of Adaptive Server earlier than 15.0), InstallShield overwrites the common components.

If you are prompted to overwrite any files, click Yes *only* if the version of the new files is later than the one it is attempting to overwrite.

Note If you install both SDK and Open Server software in the same directory, you may see warnings about overwriting newer versions of *.h files. In these cases, simply instruct the installer to overwrite these files and proceed with the installation.

7 Select one of the three types of installation:

- Typical (default), which installs the SDK or Open Server components considered to be useful for most customers. In this type of installation, only the U.S. English language module and its supported character sets are installed.

The components that will be installed and the total disk space required are displayed prior to installation. These components are described for SDK in “SDK and Open Server components” on page 2.

- Full, which installs every SDK or Open Server component including all the supported language modules from the CD.

The components that will be installed and the total disk space required are displayed prior to installation. For a list of language modules you can install, see “SDK components” on page 2.

- Custom, which allows you to select the components for SDK or Open Server to install. When you select Custom install, the next window displayed is the Component Selection window, which allows you to select the components you want to install.

Note Be aware that certain components are automatically installed if they are required to run other selected components.

After you have selected the desired components, click Next.

Before proceeding to the next window, InstallShield verifies the selections, and checks for dependencies and available disk space. The Product Summary window displays every component that is to be installed and the total disk space required for all the selected components.

Note If the target directory does not have enough free space, the space-required and the space-available information is displayed. If you click Next without sufficient hard disk space, an error occurs that stops the installation.

- 8 Verify that you have selected the correct type of installation, and that you have enough disk space to complete the process. Click Next to continue the installation.
- 9 The installation program unloads all the components from the CD and displays a progress indicator. When the installation is complete, a message is displayed indicating that the InstallShield Wizard has completed installing your product. Click Next.
- 10 A window displays a message indicating that the installation was successful and advising you to check for software updates on downloads at <http://www.sybase.com>. Click Finish to clear the window.

Installing in console mode

If you want to run the installation program without the GUI, you can launch InstallShield in console mode. In cases where InstallShield launches automatically, click Cancel to cancel the GUI install and then launch the setup program from a terminal or console.

❖ Installing in console mode

The steps for installing components in console mode are the same as those described in “Installing in GUI mode” on page 18, except that you run InstallShield installation program from the command line using the `setup -console` command, and you enter text to select the following installation options:

- 1 Enter the following at the command line:

```
./setup -is:javaconsole -console
```

InstallShield starts and displays the welcome message.

- 2 The flow of the installation is identical to a regular GUI installation, except that the display is written to a terminal window and responses are entered using the keyboard. Follow the remaining prompts to install either Software Developer's Kit or Open Server software.

For a complete list of command-line options, see “Command-line options” on page 28

Installing using a response file

A silent installation (sometimes referred to as an “unattended install”) is done by running InstallShield and providing a response file that contains answers to all of InstallShield's questions.

Creating a response file

There are two methods of generating a response file for InstallShield:

Record mode

In this mode, InstallShield performs an installation of the product and records all of your responses and selections in the specified response file. You must complete the installation to generate a response file. To create a response file, enter:

```
./setup -options-record responseFileName
```

where *responseFileName* is the file name you choose for the response file. When specifying the response file name, include the full directory path of its location. For example:

```
/home/sybase/SDK/OptionsTemplate.txt
```

Note The directory */home/sybase/SDK* must already exist.

You can also use the console mode to generate a response file without using the graphical interface. To do so, enter:

```
./setup -is:javaconsole -console -options-record  
responseFileName
```

The following are the results:

- An installation of Open Server or SDK on your computer
- A response file containing all of your responses from the installation

If this response file is used for a silent installation, the resulting installation is identical to the one from which the response file was created: the same installation location, same feature selection, and all of the remaining information. The response file is a text file that you can edit to change any responses prior to using it in any subsequent installations.

Template mode

In this mode, InstallShield creates a response file containing commented-out values for all required responses and selections. However, you do not need to install the product, and you can cancel the installation after the response file has been created. To create this template file, enter:

```
./setup -is:javaconsole -options-template  
responseFileName
```

where *responseFileName* is the file name you choose for the response file. When specifying the response file name, include the full directory path of its location.

If run in console mode, as shown in the previous example, InstallShield provides a message indicating that the template creation was successful. If run in GUI mode, no message is provided. However, you can click Cancel immediately, and a response file is created.

If you use this response file for a silent installation, the default values for all responses are used. Edit the template with the values you want to use during installation.

Installing interactively using a response file

An interactive installation using a response file allows you to accept the default values obtained from the response file that you have set up or to change any of those values for the specific installation. This is useful when you want multiple similar installations but with some minor differences that you want to change at installation time.

At the command line, enter the following command:

```
./setup -options responseFileName
```

where *responseFileName* is the file name containing the installation options you chose. When specifying the response file name, include the full directory path of its location.

Installing in silent mode

A silent mode installation, sometimes referred to as an unattended installation, allows you to install the product with all responses being taken from the response file that you have set up. There is no user interaction. This is useful when you want multiple identical installations or you want to automate the installation process.

At the command line, enter the following command:

```
./setup -is:javaconsole -silent -options  
responseFileName -W SybaseLicense.agreeToLicense=true
```

where *responseFileName* is the absolute path of the file name containing the installation options you chose. The `-W` option specifies that you agree with the Sybase License Agreement text.

Except for the absence of the GUI screens, all actions of InstallShield are the same, and the result of an installation in silent mode is exactly the same as one done in GUI mode with the same responses.

Uninstalling the SDK or Open Server

InstallShield includes an uninstall feature that removes the Sybase components you have installed.

Special uninstall considerations

Following are issues that you must consider before performing an uninstall.

Two or more products sharing components

Sybase does not support the uninstall feature of two or more Sybase products that share components and are installed in the same directory (with the exception of the SDK and Open Server products), such as Adaptive Server Suite and SDK, or Adaptive Server Suite and Open Server. Because these products have many files in common, InstallShield cannot completely resolve all the interdependencies.

Warning! Do not uninstall Open Server and SDK products in the directory that contains other Sybase products installed using an installation program other than InstallShield. By doing so, you can remove the components shared by Sybase products and affect their operation.

Removing files installed from the CD

The uninstall feature removes only those files that were loaded from the installation CD. Some Sybase files, such as log and configuration files, are left intact for administrative purposes. If Open Server and SDK products are installed into the same directory and then both uninstalled, some directories may remain if they were created by the installation of one product and uninstalled by the other. A subsequent uninstallation process is required to remove them, as described next.

Uninstalling products installed in the same directory

When both Open Server and SDK are installed in the same directory and you uninstall one of the products, the files used by that product are also uninstalled, leaving the remaining product functioning correctly. However, the product uninstaller remains active, because uninstallation cannot complete until the other product is also removed. Therefore, if you decide to remove both products, you must make a second attempt to uninstall the first product using the following command (for example, for Open Server):
`$$SYBASE$/OpenServer/uninstall -is:javahome <path to CDROM>/JVM`

A typical sequence would be:

- Install SDK.
- Install Open Server.
- Uninstall Open Server.
- Uninstall SDK.
- Uninstall Open Server using the command shown previously (in this typical example, the last entry must be Open Server).

Uninstall procedure

You can invoke the uninstall procedure using either GUI or the console method.

Note If the uninstall procedure is not created, refer to the section called “Missing uninstall components” on page 27.

Before uninstalling Sybase software, shut down all processes and applications that use the software or components that are going to be uninstalled.

❖ Uninstalling in GUI mode

1 From the command line, enter the following:

- For SDK:

```
$SYBASE/uninstall/SDK/uninstall
```

- For Open Server:

```
$SYBASE/uninstall/OpenServer/uninstall
```

The InstallShield uninstaller Wizard Welcome window is displayed.

2 Click Next to proceed to the Feature Selection window.

3 Select the product or feature you want to remove.

Note You will not be able to select certain features because they are required by other features. For example, the Open Client feature requires the English Language module, so you cannot select this module unless Open Client is also selected.

4 Click Next to move to the Uninstall Summary window. If you are satisfied with your selections, click Next for InstallShield to remove the files associated with the products you selected.

Note You may be prompted to decide whether to remove shared files. Sybase recommends *not* to remove them.

5 When this is completed, click Finish to end the uninstall.

❖ Uninstalling in console mode

1 Go to the `$SYBASE` directory, and at the command prompt, enter the following:

- For SDK:

```
$SYBASE/uninstall/SDK/uninstall -is:javaconsole  
-console
```

- For Open Server:

```
$SYBASE/uninstall/OpenServer/uninstall  
-is:javaconsole -console
```

The uninstall program starts.

- 2 Choose the SDK or Open Server software product you want to uninstall and click OK.

The SDK or Open Server software product you chose is uninstalled.

For a complete list of command-line options, see “Command-line options” on page 28.

Missing uninstall components

In certain circumstances, some of the components required to perform an uninstall, as documented previously, may be missing. The required components for an uninstall are:

- For SDK:

```
$SYBASE/uninstall/SDK/uninstall
```

- For Open Server:

```
$SYBASE/uninstall/OpenServer/uninstall
```

For both Open Server and SDK, use the Java Runtime Environment:

```
$SYBASE/uninstall/JRE-1_4
```

If any of these components are missing, you can perform the uninstall using Java directly. To do so, use Java 1.4.2 or later, be sure that you have a Java Runtime in your path, or specify the full path to the Java executable. Then, enter the following command:

- For SDK:

```
java -cp $SYBASE/uninstall/SDK/uninstall.jar run
```

- For Open Server:

```
java -cp $SYBASE/uninstall/OpenServer/uninstall.jar
```

run

Command-line options

Table 2-1 on page 28 lists alphabetically the command-line options that you can use when running an installer or uninstaller.

Table 2-1: Command-line options

Option	Purpose
-console	Specifies to use the console interface mode, where messages during installation are displayed on the Java console and the wizard is run in console mode. Use this option with -is:javaconsole option.
-is:javaconsole	Displays the Java console during installation. This has no effect on the mode in which the installer runs.
-is:javahome <i>Java home directory</i>	Indicates that the installer or uninstaller uses the specified JVM rather than the default. Only a version 1.4.x JVM may be specified.
-is:tempdir <i>directory</i>	Sets the path to the temporary directory (<i>directory</i>) to which the installer should write its temporary files. If the specified directory does not exist or is not a directory, the installer uses the system <i>temp</i> directory instead, and no error message is provided.
-log <i>!filename</i>	Initializes logging for the installer, where <i>!filename</i> is the name of a file to save the log information. If you specify “!” without a file name, the default log file name is used.
-options-template <i>responseFileName</i>	Automatically generates a response/options “template” type file (<i>responseFileName</i>) that can be used to provide user input during installation.
-options-record <i>responseFileName</i>	Automatically generates a response/options “record” type file <i>responseFileName</i> after the completion of the installation or uninstallation.
-options <i>responseFileName</i>	Specifies that a response/options file (<i>responseFileName</i>) be used to execute the installation/uninstallation, which contains command-line options, one command per line, that set specified properties for the installation. A response/options file is usually used when a silent installation is run (see the next option).
-silent	Specifies to install or uninstall the product in silent mode, where the installation/uninstallation is performed with no user interaction and the installation is “silent.” Use this option with -is:javaconsole option.

Option	Purpose
-W <i>beanID.property name.subproperty name</i> >= <i>value</i>	Specifies properties to the installer. This option must be used to agree to the Sybase License conditions during a silent installation. Refer to “Installing in silent mode” on page 24.
-G <i>globalWizardProperty</i> = “ <i>value</i> ”	<p>Sets the global wizard properties on the command line or in a <i>responseFile</i>. This option sets the expected response from the end user during silent installation or uninstallation. This option must include at least one argument. The following are the <i>globalWizardProperty</i>=“<i>value</i>” options you can specify:</p> <ul style="list-style-type: none"> • <i>replaceExistingResponse</i>=“yes no yesToAll noToAll” Set this to store the end user response whether to replace a file that currently exists on their system with the one being installed. • <i>replaceNewerResponse</i>=“yes no yesToAll noToAll” Set this to store the end user response whether to replace a file that currently exists on their system with the one being installed if the existing file is newer than the file being installed. • <i>removeExistingResponse</i>=“yes no yesToAll noToAll” Set this to store the end user response to whether to remove a file that currently exists on their system. • <i>removeModifiedResponse</i>=“yes no yesToAll noToAll” Set this to store the end user response whether to remove a file that has been modified since installation. • <i>overwriteJVM</i>=“yes no cancel” Set this to determine whether to overwrite “_jvm” directory, if it already exists on the target system. The JVM Resolution bean looks for the value of this property which, if set to “no” or “cancel,” prevents the directory from being overwritten.

This chapter describes the tasks you must perform after installation.

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Setting environment variables	31
Configuring the components	32

Note For post-installation tasks for jConnect, see the *Installation Guide* for jConnect for JDBC.

Setting environment variables

Installshield automatically sets most of the environment variables it needs, such as PATH, as part of the unloading process. Installshield also unloads *.sh* and *.csh* files, which contain the environment variables you must set manually before you can configure and run Open Client and Open Server components successfully.

Bourne and C shell files

Installshield unloads Bourne shell and C shell files containing environment variables in:

- *\$SYBASE/SYBASE.sh*
- *\$SYBASE/SYBASE.csh*

To set the environment variables, either:

- Modify the component's RUN environment permanently using the environment variable values from the shell files or
- Update the component's RUN environment immediately before invoking the component, as described below.

❖ Updating the RUN environment immediately

- 1 In a Bourne shell, enter:

```
cd $SYBASE
. SYBASE.sh
```

2 In a C shell, enter:

```
cd $SYBASE
source SYBASE.csh
```

Configuring the components

Configure each Open Client and Open Server component following the instructions in the Open Client and Open Server *Configuration Guide* for UNIX platforms. For any jConnect post-installation tasks, see the jConnect for JDBC *Installation Guide*.

Modifying *interfaces* file entries

Use the command-line utility `dscp` or the X-Windows graphical tool `dsedit` to modify master and query server entries in the *interfaces* file and for the directory services you are using. For information on using `dscp` or `dsedit`, refer to the Open Client and Open Server *Configuration Guide* for UNIX platforms.

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