



# Installation Guide

jConnect™ for JDBC™

**5.5**

DOCUMENT ID: DC32179-01-0550-02

LAST REVISED: November 2003

Copyright © 1989-2003 by Sybase, Inc. All rights reserved.

This publication pertains to Sybase software and to any subsequent release until otherwise indicated in new editions or technical notes. Information in this document is subject to change without notice. The software described herein is furnished under a license agreement, and it may be used or copied only in accordance with the terms of that agreement.

To order additional documents, U.S. and Canadian customers should call Customer Fulfillment at (800) 685-8225, fax (617) 229-9845.

Customers in other countries with a U.S. license agreement may contact Customer Fulfillment via the above fax number. All other international customers should contact their Sybase subsidiary or local distributor. Upgrades are provided only at regularly scheduled software release dates. No part of this publication may be reproduced, transmitted, or translated in any form or by any means, electronic, mechanical, manual, optical, or otherwise, without the prior written permission of Sybase, Inc.

Sybase, the Sybase logo, AccelaTrade, ADA Workbench, Adaptable Windowing Environment, Adaptive Component Architecture, Adaptive Server, Adaptive Server Anywhere, Adaptive Server Enterprise, Adaptive Server Enterprise Monitor, Adaptive Server Enterprise Replication, Adaptive Server Everywhere, Adaptive Server IQ, Adaptive Warehouse, Anywhere Studio, Application Manager, AppModeler, APT Workbench, APT-Build, APT-Edit, APT-Execute, APT-FORMS, APT-Translator, APT-Library, AvantGo, AvantGo Application Alerts, AvantGo Mobile Delivery, AvantGo Mobile Document Viewer, AvantGo Mobile Inspection, AvantGo Mobile Marketing Channel, AvantGo Mobile Pharma, AvantGo Mobile Sales, AvantGo Pylon, AvantGo Pylon Application Server, AvantGo Pylon Conduit, AvantGo Pylon PIM Server, AvantGo Pylon Pro, Backup Server, BizTracker, ClearConnect, Client-Library, Client Services, Convoy/DM, Copernicus, Data Pipeline, Data Workbench, DataArchitect, Database Analyzer, DataExpress, DataServer, DataWindow, DB-Library, dbQueue, Developers Workbench, Direct Connect Anywhere, DirectConnect, Distribution Director, e-ADK, E-Anywhere, e-Biz Integrator, E-Whatever, EC Gateway, ECMAP, ECRTTP, eFulfillment Accelerator, Embedded SQL, EMS, Enterprise Application Studio, Enterprise Client/Server, Enterprise Connect, Enterprise Data Studio, Enterprise Manager, Enterprise SQL Server Manager, Enterprise Work Architecture, Enterprise Work Designer, Enterprise Work Modeler, eProcurement Accelerator, EWA, Financial Fusion, Financial Fusion Server, Gateway Manager, GlobalFIX, ImpactNow, Industry Warehouse Studio, InfoMaker, Information Anywhere, Information Everywhere, InformationConnect, InternetBuilder, iScript, Jaguar CTS, jConnect for JDBC, Mail Anywhere Studio, MainframeConnect, Maintenance Express, Manage Anywhere Studio, M-Business Channel, M-Business Network, M-Business Server, MDI Access Server, MDI Database Gateway, media.splash, MetaWorks, My AvantGo, My AvantGo Media Channel, My AvantGo Mobile Marketing, MySupport, Net-Gateway, Net-Library, New Era of Networks, ObjectConnect, ObjectCycle, OmniConnect, OmniSQL Access Module, OmniSQL Toolkit, Open Biz, Open Client, Open ClientConnect, Open Client/Server, Open Client/Server Interfaces, Open Gateway, Open Server, Open ServerConnect, Open Solutions, Optima++, Orchestration Studio, PB-Gen, PC APT Execute, PC Net Library, PocketBuilder, Pocket PowerBuilder, Power++, power.stop, PowerAMC, PowerBuilder, PowerBuilder Foundation Class Library, PowerDesigner, PowerDimensions, PowerDynamo, PowerJ, PowerScript, PowerSite, PowerSocket, Powersoft, PowerStage, PowerStudio, PowerTips, Powersoft Portfolio, Powersoft Professional, PowerWare Desktop, PowerWare Enterprise, ProcessAnalyst, Rapport, Report Workbench, Report-Execute, Replication Agent, Replication Driver, Replication Server, Replication Server Manager, Replication Toolkit, Resource Manager, RW-DisplayLib, S-Designer, SDF, Secure SQL Server, Secure SQL Toolset, Security Guardian, SKILS, smart.partners, smart.script, SQL Advantage, SQL Anywhere, SQL Anywhere Studio, SQL Code Checker, SQL Debug, SQL Edit, SQL Edit/TPU, SQL Everywhere, SQL Modeler, SQL Remote, SQL Server, SQL Server Manager, SQL SMART, SQL Toolset, SQL Server/CFT, SQL Server/DBM, SQL Server SNMP SubAgent, SQL Station, SQLJ, STEP, SupportNow, S.W.I.F.T. Message Format Libraries, Sybase Central, Sybase Client/Server Interfaces, Sybase Financial Server, Sybase Gateways, Sybase MPP, Sybase SQL Desktop, Sybase SQL Lifecycle, Sybase SQL Workgroup, Sybase User Workbench, SybaseWare, Syber Financial, SyberAssist, SyBooks, System 10, System 11, System XI (logo), SystemTools, Tabular Data Stream, TotalFix, TradeForce, Transact-SQL, Translation Toolkit, UltraLite.NET, UNIBOM, Unilib, Uninull, Unisep, Unistring, URK Runtime Kit for UniCode, Viewer, Visual Components, VisualSpeller, VisualWriter, VQL, WarehouseArchitect, Warehouse Control Center, Warehouse Studio, Warehouse WORKS, Watcom, Watcom SQL, Watcom SQL Server, Web Deployment Kit, Web.PB, Web.SQL, WebSights, WebViewer, WorkGroup SQL Server, XA-Library, XA-Server and XP Server are trademarks of Sybase, Inc.

07/03

Unicode and the Unicode Logo are registered trademarks of Unicode, Inc.

All other company and product names used herein may be trademarks or registered trademarks of their respective companies.

Use, duplication, or disclosure by the government is subject to the restrictions set forth in subparagraph (c)(1)(ii) of DFARS 52.227-7013 for the DOD and as set forth in FAR 52.227-19(a)-(d) for civilian agencies.

Sybase, Inc., One Sybase Drive, Dublin, CA 94568.

# Contents

<b>About This Book .....</b>	<b>v</b>
<b>CHAPTER 1            Installation Instructions.....</b>	<b>1</b>
Reviewing system requirements .....	1
Windows requirements .....	1
Installing jConnect for JDBC .....	4
Install the Java Development Kit .....	4
Install jConnect products .....	5
Set environment variables .....	7
Install stored procedures .....	9
Review the installation contents .....	11
Test the jConnect installation .....	13
Upgrading jConnect .....	15
<b>CHAPTER 2            Using jConnect Documentation.....</b>	<b>17</b>
Programmer's reference.....	17
Javadoc documentation of jConnect extensions to JDBC.....	18
jConnect documentation access using index.html files .....	18
jsql and Ribo documentation .....	19
<b>Index .....</b>	<b>21</b>



# About This Book

This book contains the release notes and installation instructions for jConnect™ for JDBC™ versions 5.2 and 5.5.

## Audience

This book is for any person installing or configuring jConnect for JDBC version 5.2 and 5.5. It is also for programmers designing applications for use with jConnect.

## How to use this book

The information in this book is organized as follows:

- “About This Book” introduces jConnect for JDBC and points to other sources of product information and technical assistance.
- Chapter 1, “Installation Instructions,” provides system requirements and detailed instructions for installing the product.
- Chapter 2, “Using jConnect Documentation,” provides information on the documentation set for this product.

## Related documents

When you install jConnect, the following documentation is available online:

- *The jConnect for JDBC Programmer’s Reference*
- Javadoc information about jConnect packages, classes, and methods in HTML format only

See Chapter 2, “Using jConnect Documentation,” for more information.

## Other sources of information

Use the Sybase Getting Started CD, the Sybase Technical Library CD, and the Technical Library 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 Technical Library CD. It is included with your software. To read or print documents on the Getting Started CD, you need Adobe Acrobat Reader (downloadable at no charge from the Adobe Web site, using a link provided on the CD).

- 
- The Technical Library CD contains product manuals and is included with your software. The DynaText reader (included on the Technical Library CD) allows you to access technical information about your product in an easy-to-use format.

Refer to the *Technical Library Installation Guide* in your documentation package for instructions on installing and starting the Technical Library.

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

To access the Technical Library 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.

### v **Finding the latest information on product certifications**

- 1 Point your Web browser to Technical Documents at <http://www.sybase.com/support/techdocs/>.
- 2 Select Products from the navigation bar on the left.
- 3 Select a product name from the product list and click Go.
- 4 Select the Certification Report filter, specify a time frame, and click Go.
- 5 Click a Certification Report title to display the report.

### v **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**

### v **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. Enter user name and password information, if prompted (for existing Web accounts) or create a new account (a free service).
- 3 Select a product.
- 4 Specify a time frame and click Go.
- 5 Click the Info icon to display the EBF/Maintenance report, or click the product description to download the software.

## Conventions

The conventions used in this book are shown in Table 1.

**Table 1: Conventions**

<b>Key</b>	<b>Definition</b>
command	Command, method, and utility names are shown in a bold font. Bold is also used for emphasis.
<i>variable</i>	Variables, or words that stand for values you fill in, are shown in italics. File names are also shown in italics.
<i>user input</i>	Values that you enter are shown in a bold monospaced font.
computer output	Computer output is shown in a regular monospaced font.

## 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.





# Installation Instructions

This chapter contains instructions for installing jConnect on Windows, UNIX, and Linux platforms. If you are using another platform, substitute commands that are appropriate for your platform.

This chapter is divided into the following sections:

Name	Page
Reviewing system requirements	1
Installing jConnect for JDBC	4
Upgrading jConnect	15

## Reviewing system requirements

This section lists system requirements for Windows, UNIX, and Linux.

### Windows requirements

Table 1-1 lists the system requirements for installing jConnect for JDBC on Windows.

**Table 1-1: System requirements for Windows NT/95/98/2K/2K3/XP**

Hardware	PC with 486 or greater Intel processor.
Operating system	Windows NT 3.5.1 or later, or Windows 95/98/2K/2K3/XP (supporting Java VM version 1.2 or later).
Memory	16MB.
Free disk space	10MB for default options.
Java Developer's Kit	Sun JDK 1.2.x or later, or Microsoft jView.

Database	<p>One of the following:</p> <ul style="list-style-type: none"> <li>• Adaptive Server® Enterprise (SQL Server® System 10, version 10.0.2, through Adaptive Server Enterprise 12.x)</li> <li>• Sybase SQL Anywhere 5.5.23 or later, running Open Server Gateway™ dbos50</li> <li>• Sybase SQL Anywhere 6.0 through 8.x</li> </ul> <hr/> <p><b>Note</b> The following features in jConnect versions 5.2 and 5.5 require Adaptive Server Enterprise 12.x or later:</p> <ul style="list-style-type: none"> <li>• Support for unichar datatypes</li> <li>• Support for date and time datatypes</li> <li>• Support for wide-column data</li> <li>• Support for outer join syntax</li> <li>• Support for Sybase Failover in high availability systems (“HA Failover”)</li> <li>• Implementation of a DynamicClassLoader (also available in Adaptive Server Anywhere 6.x and later)</li> <li>• Support for distributed transaction management: Java Transaction API (JTA) and Java Transaction Services (JTS)</li> </ul> <p>For more information on these features, see the <i>jConnect for JDBC Programmer’s Reference</i>.</p>
Web browser	Any browser that supports JDK 1.2.x or later.
Other Sybase products (optional)	Adaptive Server IQ, OmniConnect™, DirectConnect™.
IDE (optional)	Any Java application development environment, such as JBuilder or Visual J++.
Web server (optional)	For jConnect’s TDS-tunnelling servlet, any Web server that supports the HTTPS protocol and javax.servlet interfaces.

Table 1-2 lists the system requirements for installing jConnect for JDBC on UNIX or Linux.

**Table 1-2: System requirements for UNIX and Linux**

Hardware	Any UNIX or Linux platform that supports Java VM 1.2.x and later.
Operating system	Sun Solaris, HP UX, IBM AIX, HP Tru64 UNIX, SGI IRIX, any vendor's Linux installation, and so on.
Memory	16MB.
Free disk space	10MB for default options.
Java Developer's Kit	Sun's JDK 1.2.x or later.
Database	<p>One of the following:</p> <ul style="list-style-type: none"> <li>• Adaptive Server Enterprise, from SQL Server System 10, version 10.0.2, through Adaptive Server Enterprise 12.x</li> <li>• Sybase SQL Anywhere 5.5.23 or later running Open Server Gateway™ dbos50</li> <li>• Sybase SQL Anywhere 6.0 through 8.x</li> </ul> <p><b>Note</b> The following features in jConnect versions 5.2 and 5.5 require Adaptive Server Enterprise 12.x or later:</p> <ul style="list-style-type: none"> <li>• Support for unchar datatypes</li> <li>• Support for date and time datatypes</li> <li>• Support for wide-column data</li> <li>• Support for outer join syntax</li> <li>• Support for Sybase Failover in high availability systems (“HA Failover”)</li> <li>• Implementation of a DynamicClassLoader (also available in Adaptive Server Anywhere 6.x and later)</li> <li>• Support for distributed transaction management: Java Transaction API (JTA) and Java Transaction Services (JTS)</li> </ul> <p>For more information on these features, see the <i>jConnect for JDBC Programmer's Reference</i>.</p>
Web browser	Any browser that supports JDK 1.2.x or later.
Other Sybase products (optional)	Adaptive Server IQ, OmniConnect, DirectConnect.

Web server  
(optional)

For jConnect's TDS-tunnelling servlet, any Web server that supports the HTTPS protocol and javax.servlet interfaces.

## Installing jConnect for JDBC

To install jConnect for JDBC, complete the following tasks:

- 1 Install the Java Development Kit
- 2 Install jConnect products
- 3 Set environment variables
- 4 Install stored procedures
- 5 Review the installation contents
- 6 Test the jConnect installation

### Install the Java Development Kit

Before installing jConnect, you must download and install the Java Development Kit (JDK).

#### v **Installing the Java Development Kit**

- 1 Download the current JDK from Sun's Java Software Web site at the following URL:  
*<http://java.sun.com/products/index.html>*

- 2 Install the JDK using the installation instructions provided.

When you install jConnect 5.x, you receive JDBC 2.0 compatible classes. Developers should use JDK version 1.2 and later to develop JDBC 2.0 applications with jConnect 5.x.

- 3 After installing the JDK, define the JAVA\_HOME environment variable to point to the JDK installation directory. See your operating system documentation for instructions.

## Install jConnect products

This section explains how to download jConnect products from the Web or from a CD.

---

**Note** If you cannot use the Web to install jConnect, contact Sybase Technical Support to request a CD. Once you receive the CD, see “Installing jConnect from a CD” on page 7 for installation instructions.

If you install jConnect from the Web and then receive it as part of an Adaptive Server Enterprise or other Sybase product release, use the installation instructions provided with the Sybase product to install jConnect, and verify that you want to overwrite the directory where you initially installed jConnect.

---

### v Installing jConnect from the Web

1 Go to the jConnect download Web page at the following URL:

*<http://www.sybase.com/products/middleware/jconnectforjdbc>*

2 Click Downloads in the Information box on the left side of the window.

3 When you see the registration page, read the jConnect License Agreement, then complete and submit the provided registration form. You may see a message that your registration has been successful.

4 When you go to the download page, click the name of the product(s) you want to download:

- *jconnect52.zip* — jConnect 5.2 driver, English documentation, and sample code
- *jconnect55.zip* — jConnect 5.5 driver, English documentation, and sample code
- *docsEN.zip* — jConnect documentation (English)
- *docsINT.zip* — jConnect documentation in other languages (French, German, and Japanese)

5 Download the *zip* files using your browser.

6 Extract the *zip* files into a directory on your machine.

To extract *zip* files, you need a *zip*-file extraction utility. Most UNIX and Linux platforms provide an *unzip* utility as part of their standard tools. Windows users can use WinZip.

7 After installing jConnect:

- Set the JDBC\_HOME and CLASSPATH environment variables. See “Setting Environment Variables” on page 10.
- Review your installation contents. See “Reviewing Installation Contents” on page 15.

v **Installing jConnect from a CD**

---

**Note** Use these instructions *only* if you requested a jConnect CD because you cannot download jConnect from the Web. Do not use these instructions to install the version of jConnect included with Adaptive Server Enterprise or other Sybase products. Instead, use the installation guide provided with the product.

---

- 1 Log in to the machine on which you want to install jConnect. Use a login with Administrator privileges or the ID you use for all installations.
- 2 Place the Sybase jConnect CD in the CD-ROM drive.
- 3 Access the CD from your system:  
For UNIX or Linux:
  - Mount the CD by typing the command for your platform.For Windows:
  - Use My Computer or the Windows Explorer to access the CD-ROM drive.
- 4 When you can view the contents of the CD, click the name of the product(s) you want to install:
  - *jconnect52.zip* — jConnect 5.2 driver, English documentation, and sample code
  - *jconnect55.zip* — jConnect 5.5 driver, English documentation, and sample code
  - *docsEN.zip* — jConnect documentation (English)
  - *docsINT.zip* — jConnect documentation in other languages (French, German, and Japanese)
- 5 Extract the *zip* files into a directory on your machine.  
To extract *zip* files, you need a *zip*-file extraction utility. Most UNIX and Linux platforms provide an *unzip* utility as part of their standard tools. Windows users can use WinZip.

- 6 After installing jConnect:
  - Set the JDBC\_HOME and CLASSPATH environment variables. See “Setting Environment Variables” on page 10.
  - Review your installation contents. See “Reviewing Installation Contents” on page 15.

## Set environment variables

To use the jConnect classes you installed, you must set the JDBC\_HOME and CLASSPATH environment variables.

### Setting JDBC\_HOME

JDBC\_HOME represents the directory in which you install jConnect.

---

**Note** The *zip* file is not aware of your directory structure and installs everything below a directory with the specific jConnect driver’s name.

---

For example, if you unzipped *jconnect55.zip* in *C:\Sybase* on Windows, you would set JDBC\_HOME to:

```
C:\Sybase\jConnect-5_5
```

On UNIX or Linux, if you installed the *zip* file into */usr/local/Sybase*, you would set JDBC\_HOME to:

```
usr/local/Sybase/jConnect-5_5
```

### Setting the CLASSPATH

---

**Note** If you are using JRE or jView instead of JDK, see the documentation for those products for instructions on setting the CLASSPATH variable.

---

CLASSPATH is the location of the jConnect runtime classes and/or *jar* files, and the Java home library for JDK 1.2.x or later. This section describes what you need in your CLASSPATH depending on which versions of JDK and jConnect you are using.

---

**Note** On Windows NT, Windows 95, and older Windows systems, make sure that file and directory names are no longer than eight characters plus a three-character suffix (“8.3 format”), or that you use abbreviated (“mangled”) names as displayed in a DOS directory listing (for example, *progra-1* instead of *program files*).

---

To use jConnect 5.x with JDK versions 1.2 and later, set the CLASSPATH:

- On UNIX or Linux:

*\$JDBC\_HOME/classes/jconn2.jar*

- On Windows:

*%JDBC\_HOME%\classes\jconn2.jar*

JDK versions 1.2 and later do not require you to set the location of the Java runtime classes in your CLASSPATH.

To run the samples or the TDS-tunnelling servlet, set the CLASSPATH environment variable:

- On UNIX or Linux:

*\$JDBC\_HOME/classes/jconn2.jar:\$JDBC\_HOME/classes*

- On Windows:

*%JDBC\_HOME%\classes\jconn2.jar;%JDBC\_HOME%\classes*

---

**Note** Sybase does not recommend running JDK 1.1.x with jConnect 5.x.

---

In addition, the CLASSPATH should include the location of any application classes you have defined.

As explained in the next section, if you use Netscape, some restrictions may apply to the way you set your CLASSPATH environment variable.



### Restrictions when using Netscape

The Java VM security manager will not allow a version of jConnect installed in your local file system to create a connection to a server, even if the server is your local system. This can create a problem if you use Netscape to run an applet that uses jConnect.

When Netscape needs to load jConnect to create a connection to a server, it looks for a CLASSPATH defined in its environment to find the jConnect classes. If it finds a CLASSPATH that you have defined to point to your local jConnect installation, it loads jConnect directly from the local file system, rather than from the server, and tries to create a connection. This generates a security error and the connection fails.

Therefore, if you are using Netscape to run jConnect applets, do not set the CLASSPATH to the local jConnect directory.

### Install stored procedures

For jConnect to function properly, you must install stored procedures and tables on the Adaptive Server Enterprise or Adaptive Server Anywhere database to which your application will be connecting. jConnect provides the following scripts to install the required stored procedures and tables:

- *sql\_server.sql* installs stored procedures on Adaptive Server Enterprise versions 11.9.2 and earlier.
- *sql\_server12.sql* installs stored procedures on Adaptive Server Enterprise version 12.0.
- *sql\_server12.5.sql* installs stored procedures on Adaptive Server Enterprise versions 12.5.x.
- *sql\_asa.sql* installs stored procedures on SQL Anywhere and Adaptive Server Anywhere databases.

To run the scripts:

- 1 Make sure that your JAVA\_HOME, JDBC\_HOME, and CLASSPATH environment variables are set.
- 2 To connect to a SQL Anywhere database earlier than version 6.0, start an Open Server gateway.
- 3 Use the IsqlApp sample application according to the instructions in the following sections, based on the target database and your platform.

## On an Adaptive Server Enterprise database

To install stored procedures for metadata in an Adaptive Server Enterprise database using Windows, go to a DOS prompt and enter the following command on one line from the `%JDBC_HOME%\classes` directory:

### Adaptive Server Enterprise version 12.5.x:

```
java IsqlApp -U sa -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I %JDBC_HOME%\sp\sql_server12.5.sql -c go
```

### Adaptive Server Enterprise version 12.0:

```
java IsqlApp -U sa -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I %JDBC_HOME%\sp\sql_server12.sql -c go
```

### Adaptive Server Enterprise version 11.9.2 and earlier:

```
java IsqlApp -U sa -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I %JDBC_HOME%\sp\sql_server.sql -c go
```

On UNIX or Linux, enter the following command from your `$JDBC_HOME/classes` directory:

### Adaptive Server Enterprise version 12.5.x:

```
java IsqlApp -U sa -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I $JDBC_HOME/sp/sql_server12.5.sql -c go
```

### Adaptive Server Enterprise version 12.0:

```
java IsqlApp -U sa -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I $JDBC_HOME/sp/sql_server12.sql -c go
```

### Adaptive Server Enterprise version 11.9.2 and earlier:

```
java IsqlApp -U sa -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I $JDBC_HOME/sp/sql_server.sql -c go
```

## On a SQL Anywhere or Adaptive Server Anywhere database

To install stored procedures for metadata in a SQL Anywhere or Adaptive Server Anywhere database using Windows, go to a DOS prompt and enter the following command on one line from the `%JDBC_HOME%\classes` directory:

```
java IsqlApp -U dba -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I %JDBC_HOME%\sp\sql_asa.sql -c go
```

On a UNIX or Linux system, enter the following command on one line from your `$JDBC_HOME/classes` directory:

```
java IsqlApp -U dba -P password -S jdbc:sybase:  
Tds:[hostname]:[port] -I $JDBC_HOME/sp/sql_asa.sql -c go
```

## Review the installation contents

After completing the jConnect installation, review the contents listed in this section.

### Packages

For jConnect version 5.x, the following packages are found inside *jar* files: *jconn2.jar* for the release build, *jconn2d.jar* for the debug build.

- com.sybase.jdbc2.jdbc
- com.sybase.jdbc2.tds
- com.sybase.jdbc2.timedio
- com.sybase.jdbc2.utils
- com.sybase.jdbcx

The jConnect driver, com.sybase.jdbc2.jdbc.SybDriver, is in the com.sybase.jdbc2.jdbc package.

### Directories and files

Table 1-3 lists the directories and files in *jconnect55.zip*.

**Table 1-3: jconnect55.zip installation**

Name	Type	Description
<i>jconnect-5_5</i>	Directory	Contains all of the jConnect version 5.5 files and subdirectories.
<i>classes</i>	Subdirectory	The following jConnect 5.5 components are installed in the <i>classes</i> subdirectory: <ul style="list-style-type: none"> <li>• <i>jconn2.jar</i> file that contains jConnect 5.5 classes.</li> <li>• <i>sample2</i> subdirectory with jConnect 5.5 class files for sample applets and applications, including the <i>lsq1</i> applet.</li> <li>• <i>gateway2</i> subdirectory for compiled TDS-tunnelling servlet</li> </ul>
<i>devclasses</i>	Subdirectory	<i>jconn2d.jar</i> file that contains the same jConnect 5.5 components as <i>jconn2.jar</i> , but debug mode is turned on.
<i>docs</i>	Subdirectory	Contains the <i>en</i> subdirectory, which contains the English javadoc documentation, and the <i>en/progref</i> subdirectory, which contains the <i>jConnect for JDBC Programmer's Reference</i> in HTML and PDF format.
<i>gateway2</i>	Subdirectory	Contains source code for the TDS-tunnelling servlet.
<i>sample2</i>	Subdirectory	Contains source code for sample Java applications.

Name	Type	Description
<i>sp</i>	Subdirectory	Contains isql scripts that install stored procedures for function escapes and DatabaseMetaData methods on a database server. The scripts are: <ul style="list-style-type: none"> <li>• <i>sql_asa.sql</i> (Adaptive Server Anywhere)</li> <li>• <i>sql_server12.5.sql</i> (Adaptive Server Enterprise version 12.5.x)</li> <li>• <i>sql_server12.sql</i> (Adaptive Server Enterprise version 12.0)</li> <li>• <i>sql_server.sql</i> (pre-version 12.0 Adaptive Server Enterprise)</li> </ul>
<i>tools</i>	Subdirectory	Contains a perl script ( <i>decode-tli</i> ) that UNIX or Linux users can apply to parse an <i>interfaces</i> file into a readable format.
<i>netimpct.gif</i>	Graphic file	jConnect graphic.
<i>index.html</i>	HTML file	Contains links to jConnect documentation and to jConnect samples.

Table 1-4 lists the directories and files in *jconnect52.zip*.

**Table 1-4: jconnect52.zip installation**

Name	Type	Description
<i>jconnect-5_2</i>	Directory	Contains all of the jConnect version 5.2 files and subdirectories.
<i>classes</i>	Subdirectory	The following jConnect 5.2 components are installed in the <i>classes</i> subdirectory: <ul style="list-style-type: none"> <li>• <i>jconn2.jar</i> file that contains jConnect 5.2 classes.</li> <li>• <i>sample2</i> subdirectory with jConnect 5.2 class files for sample applets and applications, including the <i>Isql</i> applet.</li> <li>• <i>gateway2</i> subdirectory for compiled TDS-tunnelling servlet</li> </ul>
<i>devclasses</i>	Subdirectory	<i>jconn2d.jar</i> file that contains the same jConnect 5.2 components as <i>jconn2.jar</i> , but debug mode is turned on.
<i>docs</i>	Subdirectory	Contains the <i>en</i> subdirectory, which contains the English javadoc documentation, and the <i>en/progref</i> subdirectory, which contains the <i>jConnect for JDBC Programmer's Reference</i> in HTML and PDF format.
<i>gateway2</i>	Subdirectory	Contains source code for the TDS-tunnelling servlet.
<i>sample2</i>	Subdirectory	Contains source code for sample Java applications.
<i>sp</i>	Subdirectory	Contains isql scripts that install stored procedures for function escapes and DatabaseMetaData methods on a database server. The scripts are: <ul style="list-style-type: none"> <li>• <i>sql_asa.sql</i> (Adaptive Server Anywhere)</li> <li>• <i>sql_server12.5.sql</i> (Adaptive Server Enterprise version 12.5.x)</li> <li>• <i>sql_server12.sql</i> (Adaptive Server Enterprise version 12.0)</li> <li>• <i>sql_server.sql</i> (pre-version 12.0 Adaptive Server Enterprise)</li> </ul>

Name	Type	Description
<i>tools</i>	Subdirectory	Contains a perl script ( <i>decode-tli</i> ) that UNIX or Linux users can apply to parse an <i>interfaces</i> file into a readable format.
<i>netimpct.gif</i>	Graphic file	jConnect graphic.
<i>index.html</i>	HTML file	Contains links to jConnect documentation and to jConnect samples.

## JDBC 2.0 samples

You can find JDBC 2.0 code samples in the *sample2* subdirectory under the jConnect installation directory. For more information, see “Running jConnect Sample Programs and Code,” in Appendix B of the *jConnect for JDBC Programmer’s Reference*.

## Test the jConnect installation

After jConnect is installed, test the installation by running the Version program.

---

**Note** The Version program connects to a demonstration database that Sybase has made available on the Internet. You must have Internet access to run the Version program successfully, or explicitly run it with [-U *username*] [-P *password*] [-S *servername*] commands to point it to your database.

---

From the DOS prompt for Windows, or at a UNIX or Linux prompt, change to the JDBC\_HOME directory. Make sure your CLASSPATH variable is set for running the sample programs—see “Setting the CLASSPATH” on page 7 for details—and enter the following text:

```
java sample2.SybSample Version
```

This should bring up a SybSample window. At the top of the window, the Running Sybase Sample text box should display the source code for Version as the program runs. The middle text box— Sample Output—should display version information. For example:

```
Using JDBC driver version 5.5
jConnect (TM) for JDBC(TM)/5.5...
```

- If the previous message appears in the Sample Output text box, you have successfully installed jConnect.

- If you get the previous message but the source code for Version does not appear in the Running Sybase Sample text box, and the Status text box at the bottom of the window shows:

```
java.io.FileNotFoundException: Version.java
```

you successfully installed jConnect but probably did not enter the command to run the Version program from the *sample2* directory under *JDBC\_HOME*.

- If the SybSample window does not appear and you get the following error message,

```
Can't find class sample2.SybSample
```

check your CLASSPATH to be sure that it is set correctly.

- Using Windows, if the SybSample window does not come up, and you get one of the following error messages,

```
"Name specified is not recognized as an internal or  
external command" (Windows NT)
```

```
"Bad command or file name" (Windows 95)
```

make sure that your path includes the *bin* subdirectory of your JDK home directory.

When you have verified that your installation was successful, click Close to exit the SybSample window.

## Verifying the jConnect version

To check the exact build version of your jConnect installation, execute the following command from your *\$JDBC\_HOME/classes* directory on UNIX or Linux or your *%JDBC\_HOME%\classes* directory on Windows:

```
java -jar jconn2.jar
```

This command prints a version string like the following:

```
jConnect (TM) for JDBC(TM)/5.5 (Build  
25200/P/EBF11473/JDK12/Tue Sep 16 15:18:30 2003
```

Here the version number is 5.5. The 5-digit number following the letters "EBF" indicates the exact version of jConnect. This number increases as subsequent EBFs are released. Sybase recommends that you check the Sybase download Web site periodically for updated versions of jConnect and download the latest version.

# Upgrading jConnect

If you are migrating from one version of jConnect to another, Table 1-5 shows which upgrade paths require you to change and recompile the source code.

**Table 1-5: Upgrade paths that require recompiling**

From jConnect version	To jConnect version					
	4.0	4.1	4.2	5.0	5.2	5.5
3.0	No changes required	No changes required	No changes required	Changes required *	Changes required *	Changes required *
4.0	N/A	No changes required	No changes required	Changes required *	Changes required *	Changes required *
4.1	N/A	N/A	No changes required	Changes required *	Changes required *	Changes required *
4.2	N/A	N/A	N/A	Changes required *	Changes required *	Changes required *
5.0	N/A	N/A	N/A	N/A	No changes required	No changes required
5.2	N/A	N/A	N/A	N/A	No changes required	No changes required

\* See Chapter 5, “Migrating jConnect Applications,” in the *jConnect for JDBC Programmer’s Reference* for instructions.

---

**Note** Sybase strongly recommends that you use jConnect 5.5 for JDBC applications. Of all the Sybase JDBC drivers, jConnect 5.5 provides the most features and supports the most Sybase database capabilities.

---





# Using jConnect Documentation

Your jConnect installation includes the *jConnect for JDBC Programmer's Reference* and javadoc information (see below) about jConnect packages, classes, and methods.

This chapter covers the following topics:

Name	Page
Programmer's reference	17
Javadoc documentation of jConnect extensions to JDBC	18
jConnect documentation access using index.html files	18
jisql and Ribo documentation	19

## Programmer's reference

The *jConnect for JDBC Programmer's Reference* provides information and examples specific to the jConnect driver, as well as solutions and workarounds for problems you may encounter when using jConnect.

When you install jConnect, a *docs* directory is created under the jConnect installation directory. The *docs* directory contains an *en/progref* subdirectory containing the *jConnect for JDBC Programmer's Reference* in HTML and PDF formats. To obtain this reference in languages other than English, download the *docsINT.zip* file from the jConnect download Web site. See "Install jConnect products" on page 5 for instructions.

## Javadoc documentation of jConnect extensions to JDBC

The Java Development Kit (JDK) from Java Software contains a javadoc script for extracting comments from source-code files and putting them in corresponding HTML files. This script is used to extract documentation of jConnect packages, classes, and methods from jConnect source files. When you install jConnect, the javadoc information is installed in the following directories:

- For UNIX or Linux:  
`$JDBC_HOME/docs/en/javadocs`
- For Windows:  
`%JDBC_HOME%\docs\en\javadocs`

The javadoc information is available only in HTML format.

## jConnect documentation access using *index.html* files

Using a Web browser, you can access both the *jConnect for JDBC Programmer's Reference* and the jConnect javadoc information from an *index.html* file:

- `$JDBC_HOME/index.html` (UNIX or Linux) and `%JDBC_HOME%\index.html` (Windows) contain links for accessing the jConnect documentation and for running sample JDBC applets.
- `$JDBC_HOME/docs/index.html` (UNIX or Linux) and `%JDBC_HOME%\docs\index.html` (Windows) contain links to the jConnect documentation.

## jisql and Ribo documentation

Ribo and jisql are JDBC development tools. jisql provides a database GUI from which users can connect to a database, issue SQL commands, and view output graphically. Ribo enables JDBC developers to capture and view communication between jConnect and a database. Ribo can also decode Tabular Data Stream (TDS) messages, which Sybase databases use to communicate with client applications, helping developers to diagnose problems.

For more information on Ribo and jisql, refer to the documentation provided with these applications, which can be downloaded from the Sybase Web site.

When you download jisql, a *doc* subdirectory contains this documentation:

- An *.html* version of the *jisql User's Guide*. Open *jisql-1.html* first.

When you download Ribo, a *doc* subdirectory contains this documentation:

- An *.html* version of the *Ribo User's Guide*. Open *ribo-1.html* first.



# Index

## A

- Adaptive Server Anywhere
  - installing stored procedures for metadata 10
- Adaptive Server Enterprise
  - installing stored procedures for metadata 10

## B

- browser
  - Netscape restrictions on CLASSPATH 9
  - requirements for jConnect installation 2

## C

- CLASSPATH environment variable 7
  - Netscape restrictions on 9

## D

- DatabaseMetaData methods
  - stored procedures for 9

## E

- environment variables, setting
  - CLASSPATH 7
  - JAVA\_HOME 4
  - JDBC\_HOME 7

## F

- font conventions vii

## I

- installation
  - contents 11
- installing
  - JDK (Java Development Kit) 4
    - stored procedures 9
  - installing jConnect 5
    - from a CD 6
    - from the Web 5
    - requirements 1
    - testing the installation 13

## J

- Java Development Kit. See JDK, installing 4
- JAVA\_HOME environment variable 4
- javadocs 18
- jConnect
  - installation contents 11
  - installation requirements 1
  - installing 5
- JDBC 2.0 samples 13
- JDBC\_HOME environment variable
  - setting 7
- JDK (Java Development Kit), installing 4

## L

- Linux
  - system requirements 2, 3

## M

- metadata, stored procedures for 9

## *Index*

### **N**

Netscape  
restrictions on CLASSPATH 9

### **R**

related documents v  
requirements  
for installing jConnect 1

### **S**

samples  
JDBC 2.0 13  
setting JDBC\_HOME 7  
SQL Anywhere  
installing stored procedures for metadata 10  
stored procedures  
Adaptive Server Enterprise 10  
required for metadata 9  
SQL Anywhere or Adaptive Server Anywhere 10  
system requirements  
installing jConnect 1

### **T**

testing for a successful jConnect installation 13

### **U**

UNIX  
system requirements 2, 3

### **V**

version program  
testing for successful jConnect installation 13

### **W**

Windows  
system requirements 1