

Release Bulletin for jConnect™ for JDBC™ Version 5.5

Document ID: DC74635-01-0550-03

Last revised: October 12, 2004

Topic	Page
1. Accessing current release bulletin information	2
2. Product summary	2
3. Special installation instructions	3
3.1 Check your jConnect for JDBC version	3
3.2 Remove old versions of jConnect for JDBC	3
4. Changed functionality in this version	4
4.1 Support for date and time datatypes	4
5. Known problems	4
5.1 Using executeBatch	5
5.2 Importing packages with JRE 1.3	5
5.3 Handling numeric errors returned as warnings	6
6. Documentation updates and clarifications	7
7. Technical support	7
8. Other sources of information	7
8.1 Sybase certifications on the Web	8
8.2 Sybase EBFs and software maintenance	8

Copyright 1989-2004 by Sybase, Inc. All rights reserved. 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 Warehouse, Anywhere Studio, Application Manager, AppModeler, APT Workbench, APT-Build, APT-Edit, APT-Execute, APT-Translator, APT-Library, Backup Server, BizTracker, ClearConnect, Client-Library, Client Services, Convo/DM, Copernicus, Data Pipeline, Data Workbench, DataArchitect, Database Analyzer, DataExpress, DataServer, DataWindow, DataWindow.NET, DB-Library, dbQueue, Developers Workbench, Direct Connect Anywhere, DirectConnect, Distribution Director, e-ADK, E-Anywhere, e-Biz Impact, e-Biz Integrator, E-Whatever, EC Gateway, ECMAP, ECRTIP, 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 Modeller, eProcurement Accelerator, EWA, Financial Fusion, Financial Fusion Server, Gateway Manager, GlobalFIX, iAnywhere, iAnywhere Application Alerts, iAnywhere Mobile Delivery, iAnywhere Mobile Document Viewer, iAnywhere Mobile Inspection, iAnywhere Mobile Marketing Channel, iAnywhere Mobile Pharma, iAnywhere Mobile Sales, iAnywhere Pylon, iAnywhere Pylon Application Server, iAnywhere Pylon Conduit, iAnywhere Pylon PIM Server, iAnywhere Pylon Pro, iAnywhere Solutions, 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 iAnywhere, My iAnywhere Media Channel, My iAnywhere Mobile Marketing, MySupport, Net-Gateway, Net-Library, New Era of Networks, ObjectConnect, ObjectCycle, OmniConnect, OmniSQL Access Module, OmniSQL Toolkit, Open Biz, Open Client, Open Client/Server, Open Client/Server Interfaces, Open Gateway, Open Server, Open ServerConnect, Open Solutions, Optima++, Orchestration Studio, PB-Gen, PC APT Execute, PC DB-Net, 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, RepConnector, Replication Agent, Replication Driver, Replication Server, Replication Server Manager, Replication Toolkit, Report-Execute, Report Workbench, Resource Manager, RW-DisplayLib, RW-Library, S-Designer, SDF, Secure SQL Server, Secure SQL Toolkit, Security Guardian, SKI/S, smart.partners, smart.parts, 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 Toolkit, SQL Server/CTI, 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, Syber Assist, SyBooks, System 10, System 11, System XI (logo), SystemTools, Tabular Data Stream, TotalFix, TradeForce, Transact-SQL, Translation Toolkit, UltraLite, UltraLite.NET, UNIBOM, Unilib, Unimull, Unisep, Unistring, URK Runtime Kit for UniCode, 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. 05/04

1. Accessing current release bulletin information

A more recent version of this release bulletin may be available on the Web. To check for critical product or document information added after the release of the product CD, use the Sybase Technical Library Product Manuals Web site.

❖ **Accessing release bulletins at the Technical Library Product Manuals Web site**

- 1 Go to Product Manuals at <http://www.sybase.com/support/manuals/>.
- 2 Follow the links to the appropriate Sybase product.
- 3 Select the Release Bulletins link.
- 4 Select the Sybase product version from the Release Bulletins list.
- 5 From the list of individual documents, select the link to the release bulletin for your platform. You can either download the PDF version or browse the document online.

2. Product summary

Enclosed is Sybase jConnect™ for JDBC™ version 5.5.

jConnect for JDBC is an implementation of the Java JDBC standard. It provides Java developers native database access in multitier and heterogeneous environments. You can download jConnect for JDBC quickly, without previous client installation, for use with thin-client Java applications.

jConnect for JDBC provides high-performance, direct access to the complete family of Sybase products, including Adaptive Server® Enterprise, Adaptive Server Anywhere, Adaptive Server IQ (formerly Sybase IQ™), and Replication Server®.

Note Sybase uses the names Adaptive Server and Adaptive Server Enterprise to refer to all supported versions of Adaptive Server Enterprise.

jConnect for JDBC offers:

- JDBC 2.x and JDBC 2.0 standards compliance
- Native protocol support
- No client installation
- Multitier configurations

jConnect for JDBC provides:

- Interoperability with other JDBC drivers
- High-performance direct database access
- Zero-client installation
- Heterogeneous and legacy database support
- Portability across any Web server and Java-enabled client
- Scalability for business-critical applications
- Security and reliability

3. Special installation instructions

Check the Sybase download Web site for the most recent version of jConnect for JDBC:

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

3.1 Check your jConnect for JDBC version

To check the exact build version of an existing jConnect for JDBC installation, execute the following command from your `$JDBC_HOME/classes` directory on UNIX 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 for JDBC. This number increases as subsequent EBFs are released. If there is a more recent version of jConnect for JDBC available on the Sybase download Web site, download and use the latest version.

3.2 Remove old versions of jConnect for JDBC

If you have downloaded the latest version of jConnect for JDBC, use the following procedure to remove your old installation.

❖ Removing an old version of jConnect for JDBC

- 1 Delete the *jConnect-5_5* folder in the *\$SYBASE* directory.
- 2 Extract the *zip* file containing the latest version of jConnect for JDBC into the *\$SYBASE* directory.
- 3 Reinstall jConnect for JDBC metadata on your database using the proper script included with the latest version of jConnect for JDBC. For example, use the *sql_server12.sql* script for Adaptive Server Enterprise version 12.0. For complete instructions, see the jConnect for JDBC *Installation Guide*.

4. Changed functionality in this version

This section summarizes new and changed functionality in jConnect for JDBC. See Chapter 2, “Programming Information,” in the jConnect for JDBC *Programmer’s Reference* for details.

4.1 Support for date and time datatypes

jConnect for JDBC versions 5.5 and later support the date and time datatypes with Adaptive Server Enterprise versions 12.5.1 and later. To use these datatypes, a jConnect for JDBC client must set the driver version to 6. To do so, the client can use the `SybDriver.setVersion()` method, or use the `JCONNECT_VERSION` connection property. For more information, see Chapter 2, “Programming Information,” in the jConnect for JDBC *Programmer’s Reference*.

5. Known problems

This section describes problems that are scheduled to be fixed in a future release of jConnect for JDBC.

Number	Description/workaround
202606	DatabaseMetaData.allTablesAreSelectable() on Adaptive Server Enterprise always returns “0” and on Adaptive Server Anywhere always returns “1.”
189291	I/O error occurs on ResultSet.close() only when the LANGUAGE_CURSOR connection property is set to “true.” If you explicitly set LANGUAGE_CURSOR to “true,” then attempt to set a cursor name, execute the query, call rs.next(), and close the result set without reading all the rows or getting to the end of the ResultSet, an IOException occurs.

5.1 Using executeBatch

Clients inserting or updating rows with the `executeBatch` method receive a `BatchUpdateException` if their code attempts to insert a duplicate-key row. The exception contains an array of update counts. The number of counts can be used to determine how many batch commands were processed prior to the attempted duplicate-key insert; however, the number of counts may not exactly indicate the number of batch commands that executed. For example, a batch containing 50 inserts that failed with a duplicate-key row exception after the 15th insert may have succeeded with 35 inserts.

This discrepancy results from the time elapsed between when jConnect for JDBC encounters a `BatchUpdateException` and issues a cancel command to the server and when the server processes the cancel command. As in the previous example, jConnect may encounter an exception and issue a cancel command after the 15th insert, but the server might not process the cancel command until after 35 inserts have completed.

Sybase recommends that you execute batch updates and inserts as transactions by setting `autoCommit` to false and beginning each transaction with `Statement.executeUpdate("begin tran")`. The transaction should encapsulate all the commands in the batch.

If a `BatchUpdateException` occurs with the `executeBatch` method, the client application should roll back the transaction, fix the problem, and retry the transaction. The client can determine the cause of the problem by calling the `getNextException` method on the `BatchUpdateException`. The original exception is chained to the `BatchUpdateException` that jConnect for JDBC generates.

This issue concerns CR #320272. For more information, see Chapter 2, "Programming Information," in the jConnect for JDBC *Programmer's Reference*.

5.2 Importing packages with JRE 1.3

Compilation may fail with `javac` in JDK 1.3 with an error similar to the following:

```
myclass.java:4: package com.sybase.jdbc2 does not exist
import com.sybase.jdbc2.*;
```

You can work around this problem by specifying the full package name in your import statements. For example:

```
import com.sybase.jdbc2.jdbc.SybDriver
```

5.3 Handling numeric errors returned as warnings

In ASE 12.0 through 12.5, numeric errors are handled by default as severity 10. A severity-level 10 message is classified as a status information message, not as an error, and its content is transferred in a `SQLWarning` object. The following code excerpt illustrates this processing:

```
static void processWarnings(SQLWarning warning) {
    if (warning != null) {
        System.out.println ("\n -- Warning received -- \n");
    } //end if
    while (warning != null) {
        System.out.println ("Message: " + warning.getMessage());
        System.out.println ("SQLState: " + warning.getSQLState());
        System.out.println ("ErrorCode: " + warning.getErrorCode());
        System.out.println ("-----");
        warning = warning.getNextWarning();
    } //end while
} //end processWarnings
```

When a numeric error occurs, the `ResultSet` object returned contains no result set data, and the relevant information concerning the error must be obtained from the `SQLWarning`. Therefore, in a JDBC application, the code that checks for and processes a `SQLWarning` should not depend on there being a result set. For example, the following code checks for and processes `SQLWarning` data both inside and outside the result set processing while loop:

```
while (rs.next()) {
    String value = rs.getString(1);
    System.out.println ("Fetched value: " + value);

    // Check for SQLWarning on the result set.
    processWarnings (rs.getWarnings());
} //end while

// Check for SQLWarning on the result set.
processWarnings (rs.getWarnings());
```

Here the code checks for `SQLWarning` even if there is no result set data (`rs.next()` is false). The following example is output for a program properly written to detect and report numeric errors. The error is a division by zero:

```
-- Warning received --

Message: Divide by zero occurred.
SQLState: 01012
ErrorCode: 3607
```

6. Documentation updates and clarifications

The jConnect for JDBC documentation distributed with ASE 12.5.1 is not the most current version. The most current jConnect for JDBC documentation can be found at the following Web site:

<http://sybooks.sybase.com/jc.html>

7. Technical support

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 have any questions about this installation or if you need assistance during the installation process, ask the designated person to contact Sybase Technical Support or the Sybase subsidiary in your area.

8. 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/Maintenance, 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/>.

8.1 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 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.

❖ 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.

8.2 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.

