

## HiT JDBC/400 Release Notes

Version	Date	Changes
3.34	01/03/20	<ul> <li>Added support for Japanese codepages 1399, 1390 (IBM JRE required for these codepages)</li> <li>Added support for password length longer than 8 characters</li> </ul>
3.32	02/02/15	<ul> <li>Fixed DatabaseMetaData.getTables to clean up properly if it encounters an error</li> <li>Fixed a problem in ResultSetMetaData that sometimes causes an exception when retrieving column names from a database with a multi-byte codepage</li> <li>Added support for ResultSetMetaData .getColumnClassName()</li> </ul>
3.30	01/30/07	<ul> <li>Fixed getObject() to return an empty string rather than a null when the VARCHAR value is empty;</li> <li>When calling Blob.getBytes with a length of 0, the driver will now return a byte[0] array;</li> <li>When calling Clob.getSubString with a length of 0, driver will now return an empty string;</li> <li>Added native support for batch INSERT with PreparedStatement.</li> </ul>
3.22	10/21/05	<ul> <li>Fixed a problem in ResultSet.getRow() after callinng ResultSet.last();</li> <li>Fixed a problem which under some conditions yielded incorrect row positions;</li> <li>Added new a connection option "calculate_last_row" that, when set to yes, will calculate the last row number, otherwise will ignore the value for performance purposes;</li> <li>Added support for setting a query timeout;</li> <li>Fixed a problem in updateable result sets for prepared statements;</li> <li>Fixed a problem with getTables() which sometimes threw an OutOfBound exception;</li> <li>Fixed the handling of TABLE_TYPE by getTables() when catalog_qualifier is used;</li> <li>Fixed a memory allocation issue which caused an outofmemory error for large result sets;</li> <li>Fixed a problem with prepared statements created with a pooled data source which were inappropriately getting garbage collected;</li> <li>Fixed an issue when V5R3 sometimes does not return extended data format;</li> <li>Added support for BIGINT datatype;</li> <li>Modified handling of passwords so that they are now passed as-is to the database without uppercase conversion. This is done to support case sensitive passwords in V5R3.</li> </ul>
3.20	02/02/04	• Implemented J2EE Connector architecture (JCA) supporting SPI interface so that JDBC/400 can integrate with Enterprise Information Systems (EIS) using a J2EE resource adapter;



		<ul> <li>Fixed PreparedStatement.getObject();</li> <li>Added low level cache for prepared statement;</li> <li>Optimized memory management to enhance performance;</li> <li>Fixed DatabaseMetadata GetXXX() methods;</li> <li>Added Phaos SSL support.</li> </ul>
3.11	07/18/03	<ul><li>Added support for RLE compression;</li><li>Added support for Prepared Statements pooling.</li></ul>
3.10	02/25/03	<ul> <li>Implemented JDBC 3.0 API's. This driver version is backward compatible with JDBC 2.0. However, JDK 1.4 or higher is required to use JDBC 3.0 APIs. JDK 1.2 or higher is required to use JDBC 2.0 APIs;</li> <li>Enhanced JDBC trace output and added a new connection option named trace_level that can be used to specify the level of information written to the trace file. The default level is 5 and will include all information. If 0 is specified, no information will be written to the trace;</li> <li>Added support for remote monitoring of connection activities and the execution of statements. A new Java utility application, hit.as400RemoteMonitor, is used to monitor when connections are created and closed. The new connection option remote_monitor_address is used to enable remote monitoring and to specify the IP address and port number where the remote monitoring application is running and listening. When a connection is created or closed, the driver sends a message to the remote monitoring application to identify the connection and update the total number of connections;</li> <li>Added support for Arabic, CCSID value 420.</li> </ul>
2.70	10/07/02	<ul> <li>Added option for configuration file named config_class. This option can be used to specify a compiled Java class which contains custom default connection setting values;</li> <li>Added Discard/Not reuse bad pooling connection: Bad connections get marked and discarded before returning to connection pool;</li> <li>Added ability to specify location for hit.bindings file: Users can now specify the location and name of the binding files used by hit.jndi.jdbccontext.JDBCNameContextFactory by defining a full filepath for the hit.jndi.jdbccontext.binding_file property;</li> <li>Option libraries now take a list of one or more libraries and add to the job's library list;</li> <li>Added use_unqualified_tablename to allow for use of unqualified table names from a list of libraries.</li> </ul>
2.60	08/12/02	<ul> <li>Added "connection_timeout" option;</li> <li>Fixed bug "column name not truncated correctly" for result set metadata;</li> <li>Implemented XA features to support Two phase commit (2PC): Requires DB2 Server V5R1 or later.</li> </ul>
2.52	01/10/02	• JDBC/400 now traps and ignores database warnings



2.51	05/18/01	<ul> <li>This version of the driver will require a new license key which will be provided to all existing customers with maintenance and support contract - simply contact us to get your new license key.</li> <li>Starting from this version, the JDBC driver will be distributed in a jar file and the license key will also be included in a separate jar file. The CLASSPATH must include these two jar files.</li> <li>Fix a problem when valid licenses were not recognized when running under IBM built JVMs.</li> </ul>
2.50	03/22/01	<ul> <li>Added support for JDBC 2.0 Optional Package DataSource interface, including a connection pooling implementation. hit.as400.As400DataSource provides normal connection objects. hit.as400.As400PooledDataSource provides connection pooling management. See sample applications in samples/DataSources for examples of using these classes.</li> <li>Added a JNDI service provider to use with the JDBC driver. The context factory name is hit.jndi.jdbccontext.JDBCNameContextFactory. See sample applications in samples/DataSources for examples of using the JNDI service provider to use with the JNDI service provider with HiT data sources.</li> <li>Fixed a rounding problem in ResultSet.getDouble() when the data type is decimal.</li> </ul>
2.4.2	10/12/00	<ul> <li>Add password change capability on databases that support the feature.</li> <li>Return different messages for invalid user and invalid password on databases that support the feature.</li> <li>Some performance improvement for reading from database.</li> <li>Fix a synchronization problem when driver is used with very fast systems.</li> <li>Add support for VALUES statement.</li> <li>Add support for Japanese code pages 943 and 954.</li> <li>Fix ResultSet.getObject() problem that returned null instead of an empty String.</li> <li>Fix a problem in some DatabaseMetaData methods when using DB2 on LINUX.</li> <li>Fix a problem when calling store procedures on systems with v4r4 or higher.</li> <li>Fix a connection error that was introduced by IBM on v4r5 and a patch on v4r4.</li> </ul>
2.4.1	07/11/00	<ul> <li>Implemented JDBC 2.0 Core API</li> <li>Fixed a problem that limited the number of SQL statements executed to 1024.</li> <li>Fixed a code page conversion problem.</li> </ul>
1.4.5	05/14/01	<ul> <li>This version of the driver will be distributed as a jar file called hitjdbc400.jar</li> <li>From this version on, the license key will be distributed in a jar file called hitlicense.jar</li> <li>Fix a bug in that causes in correct number of rows returned by some DatabaseMetaData methods.</li> <li>Fix a bug that limits the number of parameters to 99</li> <li>Fix bug in setDouble() and setFloat() for NUMERIC and DECIMAL datatypes (when the parameters has more than 7 digits)</li> <li>Fix getDouble() rounding bug when data type is DECIMAL</li> <li>Change all BigDecimal rounding mode to ROUND_HALF_UP</li> </ul>



1.4.2	01/05/01	<ul> <li>Add password change capability on databases that support the feature.</li> <li>Return different messages for invalid user and invalid password on databases that support the feature.</li> <li>Some performance improvement for reading from database.</li> <li>Add support for VALUES statement.</li> <li>Add support for Japanese code pages 943 and 954.</li> <li>Fix ResultSet.getObject() problem that returned null instead of an empty String.</li> <li>Fix a problem in some DatabaseMetaData methods when using DB2 on LINUX.</li> <li>Fix a problem when calling store procedures on systems with v4r4 or higher.</li> <li>Fix a connection error that was introduced by IBM on v4r5 and a patch on v4r4.</li> <li>Fix a synchronization problem when driver is used with very fast systems</li> </ul>
1.4.1	07/11/00	<ul> <li>Fixed a problem that limited the number of SQL statements executed to 1024</li> <li>Fixed a code page conversion problem.</li> </ul>
1.4.0	05/22/00	<ul> <li>Added support for SilverStream Application Server 3.0</li> <li>Added a catalog_qualifier option to override the default catalog when making a connection.</li> </ul>
1.3.0	03/28/00	Added support for double-byte character set
1.2.0	01/05/00	<ul> <li>Added support for connecting to DB2/400 via SSL Server for data encryption and server authentication</li> <li>Added support to enable SilverStream Application Server to access DB2/400 data using HiT JDBC/400</li> <li>Cryptography classes no longer available</li> <li>Added "trace_file" connection option. This option can be used by application to direct detailed JDBC trace into a file</li> <li>Added "list_all_libraries" connection option. Before this release, all libraries were searched by default in metadata calls where a null schema was specified which can cause serious performance problem for large databases. Form this release, only the default library specified in the libraries option will be used unless the list_all_libraries option is set to yes explicitly</li> <li>Added "silverstream" connection option. This option is added to resolve some compatibility issues specific to using the driver with SilverStream 2.5</li> </ul>
1.1.1	04/14/99	<ul> <li>Removed JDK 1.0.2 version of driver. The JDK 1.0.2 version will still be available upon request</li> <li>Fixed problem related to maximum number of connections reached in an applet.</li> </ul>
1.1.0	03/01/99	• Fixed problem with setString(n,string) method of PreparedStatement & CallableStatement. Version 1.1.0 incorrectly required the string parameter to have the same length



		<ul> <li>Fixed problem where driver returned a null string instead of an empty string for blank columns</li> <li>All SQLException exceptions are thrown with a non null SQLState</li> <li>Added option "naming" which allows the use of system naming convention by setting "naming=system" in the connection options. The alternative to "naming+system" is "naming+sql", which is the default. NOTE: If a library name contains a period ('.'), it is still necessary to put the library name in double quotes (ie: SELECT * FROM "A.LIB"/AFILE)</li> </ul>
1.0.8	02/12/99	<ul> <li>Performance enhancements</li> <li>Fields defined with CCSID 65535 are no longer converted by default. If conversion of these fields is desired, the following property should be set in the connection string: "convert_ccsid_65535=yes"</li> </ul>
1.0.7	02/01/99	<ul> <li>Fixed problem with methods larger than 64K causing verify error with certain browsers (especially Netscape)</li> <li>Fixed problems with DatabaseMetaData.getColumns</li> </ul>
1.0.6	01/19/99	Updated obfuscation
1.0.5	10/26/98	<ul> <li>Added Euro character to conversion tables</li> <li>Made minor changes to PreparedStatement interface</li> </ul>
1.0.4	08/12/98	Added conversion tables for CCSID 277 (Norwegian)
1.0.3	05/05/98	<ul> <li>Fixed a problem in PreparedStatement that raised an exception when the method executeQuery() is executed the second time</li> <li>Updated the conversion tables for CCSID 278 (Finnish/Swedish)</li> <li>Modified the hitSQL application so that it works with JDK116 (due to a bug in JDK116)</li> </ul>