BEA WebLogic Adapter for RDBMS

Release Notes

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CHAPTER 1

BEA WebLogic Adapter for RDBMS Release Notes

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This document includes the following topics:

About This Release of the BEA WebLogic Adapter for RDBMS

The BEA WebLogic Adapter for RDBMS connects to your RDBMS so that you can easily use your RDBMS data and functions within your business processes. The adapter provides scalable, reliable, and secure access to your RDBMS.

The adapter supports the following services and events:

- Services
  - Standard SQL
  - Parametrized SQL
  - Stored Procedure
  - Arbitrary SQL
- Events
  - Trigger
  - Select By Timestamp
  - Select Then Delete

Supported Platforms

The Adapter for RDBMS currently supports the following platforms:

- Sun Solaris 8 (with Sun recommended patches)
- Sun Solaris 9 (with Sun recommended patches)
- Microsoft Windows 2000 Professional with Service Pack 2 and higher
- Microsoft Windows 2000 Server with Service Pack 2 and higher
- Microsoft Windows 2000 Advanced Server with Service Pack 2 and higher
- Hewlett-Packard HP-UX 11.0
- Hewlett-Packard HP-UX 11i

We are working to certify this adapter on additional platforms. Up-to-date information on supported platforms is available at the following URL:

http://edocs.bea.com/wladapters/docs81/support/index.html

Software Requirements

Before you install the BEA WebLogic Adapter for RDBMS, ensure that you have the following software installed:

- BEA WebLogic Platform Version 8.1 or
  BEA WebLogic Platform Version 8.1 Service Pack 2

  The software can be downloaded from the BEA Web site at the following URL:

  `http://commerce.bea.com/downloads/products.jsp`

  The information required to install WebLogic Platform Version 8.1 Service Pack 2 can be found at the following URL:

  `http://edocs.bea.com/platform/docs81/install/index.html`

  Note: The WebLogic Server and WebLogic Integration components *must* be installed.
- Java Runtime Environment (JRE) 1.4.1 or higher
- Internet Explorer 6.0 or higher

The following are the databases that the Adapter for RDBMS supports as the target database:

- Oracle 8.1.7
- Oracle 9i Release 1
- Oracle 9i Release 2
- MS SQL Server 2000 SP2
- DB2 UDB 7.2
- Informix Dynamic Server Version 9.40
- Sybase Adaptive Server 12.5

Note: Be sure to use the database that is applicable to your platform and environment.

For details of the drivers with which the Adapter for RDBMS has been tested, see Appendix A, "Supported Drivers."

Determining the Adapter Version

To allow you to easily determine the version of the BEA WebLogic Adapter for RDBMS, identifying information has been added to the `Manifest.mf` file. This file is included in the EAR file.

For example, the `Manifest.mf` file for BEA WebLogic Adapter for RDBMS 8.1.1 contains the following:

```
Manifest-Version: 1.0
Created-By: Apache Ant 1.5
Built-By: BEA Systems,Inc
Label: BEAVIENNA.0002
Implementation-Title: BEA RDBMS Adapter 2003.09.25.075006 PM
Implementation-Version: 8.1.1
Implementation-Vendor: BEA Systems
```

The Implementation-Version is provided in the following format: `W.X.Y`:

- `W.X` represents the major and minor release number (in this case, `8.1`)
- `Y` represents the service pack number (in this case, `1`)

If you obtain a patch subsequent to a release, identifying information specific to the patch is included in the `Manifest.mf` file.

Known Limitations

The following table describes limitations in the current release of the BEA WebLogic Adapter for RDBMS. Whenever available, a recommended workaround is provided.

Where applicable, entries include a CR (Change Request) number or Case number. Please refer to this number when contacting BEA Customer Support for assistance in tracking the problem. For contact information, see "Contacting BEA Customer Support" on page 1-17.

Table 1. Known Limitations

1	**Problem CR108263**	The DB2 JDBC Driver (not 2.1-compliant) for Solaris does not have implementation for `CallableStatement.getBigDecimal ()` method. For DB2 UDB, the Stored Procedure service type does not support `decimal` and `numeric` data types.

Table 1. Known Limitations (Continued)

	Platform	Solaris
	Workaround	None
2	**Problem**	For Oracle, the Standard SQL and Arbitrary SQL service types do not support DDL statements.
	Platform	All
	Workaround	None
3	**Problem**	In a clustered environment, events must be targeted at only one node (managed server). Otherwise, you may get a warning while deploying the EAR file in a clustered environment.
	Platform	All
	Workaround	The event generator must be pinned (targeted) to only one managed server in the clustered environment. You do this by editing the event connection Event Generator Target field in the WebLogic Integration Administration console under Application Integration. The value must be the valid name given to the managed server. For more information about the WebLogic Integration Administration console, see *Managing WebLogic Integration Solutions* at the following URL: `http://edocs.bea.com/wli/docs81/manage/index.html`
4	**Problem**	Auto-suspend and resume have not been implemented for the Adapter for RDBMS.
	Platform	All
	Workaround	None
5	**Problem** **CR105737**	The Stored Procedure service type does not support the `BLOB` and `CLOB` data types due to limitations in the driver implementation (which are proprietary).
	Platform	All

Table 1. Known Limitations (Continued)

	Workaround	None
6	**Problem CR105740**	While using the Oracle Thin driver, when you invoke a stored procedure with `OUT` parameters and `RETURN` values of the type `CHAR`, extra space characters are padded at the end of the value. This is an Oracle Thin driver related issue.
	Platform	All
	Workaround	None
7	**Problem CR105741**	Only stored procedures returning a single `REFCURSOR` can be executed through the adapter. Stored procedures returning multiple `REFCURSOR` data type are not supported due to limitations in the Oracle Thin driver.
	Platform	All
	Workaround	None
8	**Problem CR105743**	The Oracle Thin Driver 9.2.0 does not behave as per the JDBC standards. A parametrized query with a field of type `CHAR` expects the value to be appended with a number of spaces. This should be equivalent to the maximum length for the field, minus the length of the value itself. For example, if the field `CHAR_FIELD` is of the length `CHAR (10)`, and the value provided in the following parameterized SQL `(SELECT * FROM TABLE WHERE CHAR_FIELD=?)` is `"VALUE"`, it has to be appended with 5 space characters `("VALUE ")` for the driver to select the records of interest. However, the same works correctly with SQLServer and DB2 drivers.
	Platform	All
	Workaround	None

Table 1. Known Limitations (Continued)

9	**Problem** **CR106128** **CR106279**	If you use a Normal/XA connection to execute services with two different transaction isolation levels, you get the following exception: `java.sql.SQLException: ORA-01453: SET TRANSACTION must be first statement of transaction.` This is a known problem in Oracle Thin Driver 9.2.0 (shipped with WebLogic).
	Platform	All
	Workaround	Services falling under the scope of a transaction (within the same resource manager) should have the same transaction isolation level. For more information, see the following URL: `http://e-docs.bea.com/wls/docs81/jta/thirdpartytx.html`
10	**Problem** **CR107186**	While using Oracle Thin Driver 9.2.0, the Arbitrary SQL service type does not accept ';' (semi-colon) as part of the SQL statement. It gives an error at run time.
	Platform	All
	Workaround	Avoid using ";" at the end of the SQL statement.

Table 1. Known Limitations (Continued)

11	**Problem** **CR105742** **CR105744** **CR105745** **CR105746** **CR105747** **CR105748**	You will not be able to create Standard SQL or Parametrized SQL services for SQL statements of the following types: • Sub-query For example: `SELECT * FROM EMP WHERE EMP_ID IN (SELECT EMP_ID FROM BONUS WHERE SAL>5000)` • Derived columns in the `SELECT` clause For example: `SELECT SAL*100 FROM BONUS` • `BETWEEN` keyword in the `SELECT` clause For example: `SELECT SAL FROM BONUS WHERE SAL NOT BETWEEN 7000 AND 8000` • Functions in the `SELECT` clause For example: `SELECT AVG(SAL) FROM BONUS` • Inner join using `(+)` keyword For example: `SELECT A.Varchar1, B.Varchar1 FROM BASE A, BASE B WHERE A.Integer1(+) = B.Integer1` You will get the following exception: `java.lang.reflect.InvocationTargetException:com.metamata.parse.ParseException.` This is due to the limitations of the SQL Parser implementation used for these service types.
	Platform	All
	Workaround	Use the Arbitrary SQL service type to execute any SQL statement.
12	**Problem** **CR120451**	You will not be able to add a service for SQLJ Stored Procedures in Sybase databases. You will get the following exception: `java.lang.Exception: Parameter mismatch`
	Platform	All
	Workaround	None

Table 1. Known Limitations (Continued)

13	**Problem CR120640**	A service that consists of an Informix SPL routine (procedure or function) with a single OUT parameter and multiple return values returns only the first return value.
	Platform	All
	Workaround	None
14	**Problem CR120908**	WebLogic Workshop validation fails for service response on attempts to retrieve rows including `integer` or `smallint` columns containing null values from Informix databases and rows including `integer` columns containing null values from Sybase databases.
	Platform	All
	Workaround	None
15	**Problem CR122787**	The response xml document generated as a result of executing a stored procedure service does not validate against the xml schema generated at design time. This happens only for stored procedures that return the result of one or more `SELECT` statements as either a result set or an `OUT` parameter from a Sybase database.
	Platform	All
	Workaround	None
16	**Problem CR122803**	Informix `byte`, `text`, and `BLOB` datatypes cannot be used in `WHERE` clauses in SQL statements for any service type. Only JDBC datatypes are supported
	Platform	All
	Workaround	None
17	**Problem CR123434**	Validation of event response fails if the response contains `NULL` values for Sybase datatype `datetime` or Informix datatypes `datetime`, `float`, or `smallfloat`.

Table 1. Known Limitations (Continued)

	Platform	All
	Workaround	None
18	**Problem CR123443**	Configuring a trigger event on an Informix table containing a column of datatype `datetime` causes the following SQL exception at runtime: `java.sql.SQLException: System or internal errorjava.sql.SQLException: Unable to build a Date object based on localized date string representation.`
	Platform	All
	Workaround	None
19	**Problem CR123740**	Deploying an insert trigger event on an Informix table containing columns of datatype `boolean`, `BLOB`, or `CLOB` causes the following SQL exception: `java.sql.SQLException: Value does not match the type of column (string_value).`
	Platform	All
	Workaround	None
20	**Problem CR120449**	An arbitrary service containing a SQL query that includes the <> operator throws the following exception when you test it in WebLogic Workshop: `com.bea.wlw.runtime.core.request.RequestValidationException: Unable to transform query arguments to Java arguments error: Unexpected character encountered (lex state 9): '>'`
	Platform	All
	Workaround	Use `<>` instead of the <> operator.

Table 1. Known Limitations (Continued)

21	**Problem CR120452**	An arbitrary service containing DDL statements throws an exception when you test it in WebLogic Workshop against a Sybase database using an XA connector. For example, a service containing a `CREATE TABLE` statement throws the following exception: `java.sql.SQLException: [DataDirect][Sybase JDBC Driver][Sybase]The 'CREATE TABLE' command is not allowed within a multi-statement transaction in the 'sybaseqa' database.`
	Platform	All
	Workaround	Use a Local or No Txn connector instead of the XA connector.
22	**Problem CR120650**	Selecting data from an Informix table containing a column having a complex datatype returns incorrect values.
	Platform	All
	Workaround	None
23	**Problem CR121764**	`UPDATE` and `DELETE` triggers are not created in Sybase tables containing `text` and `image` datatypes. When you test these triggers in WebLogic Workshop, the following exception appears in the log file: `[DataDirect][Sybase JDBC Driver][Sybase]TEXT and IMAGE datatypes are invalid for parameters or local variables.`
	Platform	All
	Workaround	None
24	**Problem CR121888**	Standard SQL services having `DELETE` statements without a `WHERE` clause do not work. Testing such services in WebLogic Workshop causes the following exception: `java.rmi.ServerError: A error occurred the server; nested exception is: weblogic.utils.AssertionError: ***** ASSERTION FAILED *****[ cannot unmarshaling throwable ] - with nested exception:`

Table 1. Known Limitations (Continued)

	Platform	All
	Workaround	Include a `WHERE` clause in all `DELETE` statements used in Standard SQL services.
25	**Problem CR122458**	Trigger events return unpredictable values for Sybase `binary`, `bit`, `timestamp`, and `varbinary` datatypes.
	Platform	All
	Workaround	Use `select_then_delete` or `timestamp` events for these datatypes.
26	**Problem CR122786**	Standard SQL services that include `INSERT` or `UPDATE` statements for tables having `BLOB` or `CLOB` datatypes do not work. Testing such services causes the following exception: `java.sql.SQLException: blob_input: cannot convert LO from argument string`
	Platform	All
	Workaround	Use Parametrized SQL services.
27	**Problem CR122804**	You cannot configure Standard SQL services (`UPDATE`, `INSERT`, and `DELETE`) for Informix tables containing `byte` or `text` datatypes. Testing such services causes exceptions to be thrown.
	Platform	All
	Workaround	Use `SELECT` queries on the table `BLOB` and `byte` datatypes. **Note:** The `WHERE` clause for `INSERT`, `UPDATE`, `DELETE`, and `SELECT` statements in Standard SQL services should not refer to `BLOB`, `CLOB`, `byte`, or `text` datatypes.
28	**Problem CR122810**	You cannot use `NULL` values as parameters in Standard SQL services `UPDATE` and `INSERT` statements. Testing such services causes exceptions to be thrown.
	Platform	All

Table 1. Known Limitations (Continued)

	Workaround	Use Arbitrary or Parametrized SQL services for such queries.
29	**Problem CR123342**	Intrusive events cannot be created on a table containing Japanese column names. Testing such services causes the following exception to be thrown: `Intrusive SQL Query is improper..enter a proper SQL Query.`
	Platform	All
	Workaround	Use English column names.
30	**Problem CR122809**	In Standard SQL and Arbitrary SQL services, you can use `byte`, `text`, `BLOB` and `CLOB` datatypes in `SELECT` and `DELETE` statements only. Testing such services with `INSERT` or `UPDATE` statements causes the following exception to be thrown: `javax.resource.ResourceException: error_in_execute`
	Platform	All
	Workaround	Use Parametrized services for `INSERT` and `UPDATE` statements.
31	**Problem CR123330**	You cannot insert more than 4KB of data in an Oracle `BLOB` or `CLOB` datatype using any type of service. Testing such services causes exceptions to be thrown.
	Platform	All
	Workaround	None
32	**Problem CR124371**	Using a Stored Procedure service to invoke an Informix function that returns multiple `SELECT` statements with an `OUT` parameter causes a SQL exception.
	Platform	All
	Workaround	None

Table 1. Known Limitations (Continued)

33	**Problem CR121428**	After deploying an Application View that contains a trigger or timestamp event for a table, you cannot edit that event or the table associated with that event.
	Platform	All
	Workaround	Manually delete the trigger from the database or delete the old event and create a new one with a different name.
34	**Problem CR128191**	Delete and update trigger events executed against MS SQL databases return values that indicate a single row was deleted or updated, instead of values for the actual number of rows deleted or updated by the delete or update trigger event.
	Platform	All
	Workaround	None
35	**Problem CR128193**	When Timestamp events are edited in appview and redeployed, an extra schema is generated in the application folder. This does not affect the event functionality.
	Platform	All
	Workaround	None
36	**Problem CR128195**	Delete trigger events that delete a number of rows one greater than the value of the Event property `maxrows` complete successfully, but throw a `java.lang.ArrayIndexOutOfBoundsException`.
	Platform	All
	Workaround	None
37	**Problem CR128192**	Select statements in Parametrized SQL services do not retrieve `BLOB` data from Oracle 9i databases when using Oracle9i 9.2.0.3 or 9.2.0.4 Thin Driver.
	Platform	All

Table 1. Known Limitations (Continued)

	Workaround	None
38	**Problem CR128199**	Arbitrary services with Serialized isolation level for an XA connector time out for Oracle 9i databases.
	Platform	All
	Workaround	None
39	**Problem CR128196**	No support for MS SQL Server `binary`, `varbinary`, `image`, `text`, `smalldatetime`, and `datetime` data types in Parametrized SQL services.
	Platform	All
	Workaround	Use Arbitrary SQL services.
40	**Problem CR128194**	Trigger events for DB2 can be deployed for tables in the default `ADMIN` schema only.
	Platform	All
	Workaround	Use default `ADMIN` schema.
41	**Problem CR128197**	Application Views with events running against DB2 are not supported on Solaris.
	Platform	Solaris
	Workaround	None
42	**Problem CR128200 CR127328**	No support for DB2 `BLOB` and `CLOB` data types in Parametrized SQL.
	Platform	All

Table 1. Known Limitations (Continued)

	Workaround	None
43	**Problem CR128198**	Insert Trigger event against an Oracle 9i database succeeds, but the validate method always returns a failure for the event.
	Platform	All
	Workaround	None
44	**Problem CR129346**	Intrusive events with delete option enabled are not available for DB2 EIS.
	Platform	All
	Workaround	None
45	**Problem CR130414**	Trigger events (insert, update, and delete) on a table with a column of type `date` time out in Oracle9i. Attempts to execute these trigger events cause `java.lang.NumberFormatException` messages to appear in the log. This is observed with Oracle9i thin driver (9.2.0.3) and 10g driver
	Platform	All
	Workaround	1) Use trigger events on a table without a column of type date, or 2) Use trigger events on a table with a date column that contains only the date portion of datetime data (for example, 23-NOV-2003). Do not store time data in this column.

Contacting BEA Customer Support

If you have any questions about this release of the BEA WebLogic Adapter for RDBMS, or if you have problems installing and running the adapter, contact BEA Customer Support through BEA eSupport at http://support.bea.com. You can also contact Customer Support by using the contact information provided on the Customer Support Card, which is included in the product package.

When contacting Customer Support, be prepared to provide the following information:

- Your name, e-mail address, phone number, and fax number
- Your company name and company address
- Your machine type and authorization codes
- The name and version of the adapter you are using
- The version of WebLogic Integration you are using
- A description of the problem and the content of pertinent error messages

APPENDIX A

Supported Drivers

This section lists the drivers that the BEA WebLogic Adapter for RDBMS supports on the following operating systems:

- Windows 2000 Professional
- Sun Solaris 8 and 9
- HP-UX 11i
- Red Hat Enterprise Linux 2.1AS (not supported on WebLogic Integration 8.1 SP2)
- IBM AIX 5.2 (not supported on WebLogic Integration 8.1 SP2)

It also lists the driver class names and JDBC URLs corresponding to the drivers.

Note: The BEA WebLogic Adapter for RDBMS should be used in conjunction with a JDBC 2.1 compliant driver.

Oracle Thin Driver

You can download the Oracle9i 9.2.0.3 Thin Driver file, `classes12.zip`, from the following URL:

`http://download.oracle.com/otn/utilities_drivers/jdbc/9203/classes12.zip`

Table A-1 Driver Class Names and JDBC URLs for Oracle Thin Driver

For Normal Connection	Driver Class Name	`oracle.jdbc.driver.OracleDriver`
	JDBC URL	`jdbc:oracle:thin:@`*`hostname`*`:`*`port`*`:`*`schema_name`*
	Example	`jdbc:oracle:thin:@127.0.0.1:1521:UAT02`
For XA Connection	Driver Class Name	`oracle.jdbc.xa.client.OracleXADataSource`
	JDBC URL	`jdbc:oracle:thin:@`*`hostname`*`:`*`port`*`:`*`schema_name`*
	Example	`jdbc:oracle:thin:@127.0.0.1:1521:UAT02`

MS SQL Server 2000 JDBC Driver

You can download the MS SQL Server 2000 JDBC Driver files `msutil.jar`, `msbase.jar`, and `mssqlserver.jar` from the following URL:

http://msdn.microsoft.com/library/default.asp?url=/downloads/list/sqlserver.asp

Table A-2 Driver Class Names and JDBC URLs for MS SQL Server 2000 JDBC Driver

For Normal Connection	Driver Class Name	`com.microsoft.jdbc.sqlserver.SQLServerDriver`
	JDBC URL	`jdbc:microsoft:sqlserver://`*`hostname`*`:`*`port`*`;SelectMethod=Cursor;DatabaseName=?`
	Example	`jdbc:microsoft:sqlserver://127.0.0.1:1433;SelectMethod=Cursor;DatabaseName=AdapterTesting`
For XA Connection	Driver Class Name	`com.microsoft.jdbcx.sqlserver.SQLServerDataSource`
	JDBC URL	`jdbc:microsoft:sqlserver://`*`hostname:port`*`;SelectMethod=?;DatabaseName=?;ServerName=?`
	Example	`jdbc:microsoft:sqlserver://127.0.0.1:1433;SelectMethod=cursor;DatabaseName=AdapterTesting;ServerName=itpl-025019`

DB2 JDBC Driver (JDBC 2.0 Compliant)

The DB2 JDBC Driver file, `db2java.zip`, is available with the database instance.

Table A-3 Driver Class Names and JDBC URLs for DB2 JDBC Driver (JDBC 2.0 Compliant)

For Normal Connection	Driver Class Name	`COM.ibm.db2.jdbc.app.DB2Driver`
	JDBC URL	`jdbc:db2:`*`DatabaseName`*
	Example	`jdbc:db2:DWCTRLDB`
For XA Connection	Driver Class Name	`COM.ibm.db2.jdbc.DB2XADataSource`
	JDBC URL	`jdbc:db2;DatabaseName=?`
	Example	`jdbc:db2;DatabaseName=DWCTRLDB`

Informix Dynamic Server JDBC Driver

The Informix JDBC Driver Version 2.21 files, `ifxjdbc.jar` and `ifxjdbcx.jar`, are available with the database instance.

Table A-4 Driver Class Names and JDBC URLs for Informix JDBC Driver

For Normal Connection	Driver Class Name	`com.informix.jdbc.IfxDriver`
	JDBC URL	`jdbc:informix-sqli://`*`host`*`:`*`port`*`/`*`DatabaseName`*`:INFORMIXSERVER=`*`ServerName`*
	Example	`jdbc:informix-sqli://127.0.0.1:1526/BEADEV:INFORMIXSERVER=BEA_SVR_INFX`
For XA Connection	Driver Class Name	`com.informix.jdbcx.IfxXADataSource`
	JDBC URL	`jdbc:informix-sqli://`*`host`*`:`*`port`*`/`*`DatabaseName`*`;ServerName=`*`ServerName`*`;PortNumber=`*`port`*`;IfxIFXHOST=`*`host`*`;DatabaseName=`*`DatabaseName`*
	Example	`jdbc:informix-sqli://127.0.0.1:1526/BEADEV;ServerName=BEA_SVR_INFX;PortNumber=1526;IfxIFXHOST=127.0.0.1;DatabaseName=BEADEV`

DataDirect Connect for JDBC

For integration with Sybase Adaptive Server databases, use the BEA WebLogic Adapter for RDBMS with DataDirect Connect for JDBC (Release 3.3). The required JDBC Driver files, `util.jar`, `base.jar`, and `sybase.jar`, are part of DataDirect Connect for JDBC Release 3.3.

For information about obtaining DataDirect Connect for JDBC, see the following URL:

`http://www.datadirect.com/products/jdbc/jdbcindex.asp`

Table A-5 Driver Class Names and JDBC URLs for Informix JDBC Driver

For Normal Connection	Driver Class Name	`com.ddtek.jdbc.sybase.SybaseDriver`
	JDBC URL	`jdbc:datadirect:sybase://`*`host`*`:`*`port`*`; databaseName=`*`name`*
	Example	`jdbc:datadirect:sybase://127.0.0.1:2048; databaseName=RdbmsQA`
For XA Connection	Driver Class Name	`com.ddtek.jdbcx.sybase.SybaseDataSource`
	JDBC URL	`jdbc:datadirect:sybase://`*`host`*`:`*`port`*`; DatabaseName=`*`name`*`;ServerName=`*`host`*`; PortNumber=`*`port`*`;SelectMethod=cursor`
	Example	`jdbc:datadirect:sybase://127.0.0.1:2048; DatabaseName=RdbmsQA;ServerName=127.0.0.1; PortNumber=2048;SelectMethod=cursor`