



## Review Supported Technologies



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## Help and Support Resources

If you do not find answers to your questions here, please contact your Pentaho technical support representative.

Support-related questions should be submitted through the Pentaho Customer Support Portal at <http://support.pentaho.com>.

For information about how to purchase support or enable an additional named support contact, please contact your sales representative, or send an email to [sales@pentaho.com](mailto:sales@pentaho.com).

For information about instructor-led training, visit <http://www.pentaho.com/training>.

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## Third-Party Open Source Software

For a listing of open source software used by each Pentaho component, navigate to the folder that contains the Pentaho component. Within that folder, locate a folder named licenses. The licenses folder contains HTML files that list the names of open source software, their licenses, and required attributions.

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# Components Reference

Pentaho aims to accommodate diverse computing environments. This list provides details about the environment components and versions we support. If you have questions about your particular computing environment, please contact Pentaho support.

## Server

Pentaho server software is hardware-independent and runs on server-class computers that comply with these specifications for minimum hardware and required operation systems.

- Pentaho Business Analysis Server
- Pentaho Data Integration Server

Hardware—64 bit	Operating System—64 bit
<ul style="list-style-type: none"> <li>• Apple Macintosh Pro Quad-Core or Macintosh Mini Quad-Core</li> <li>• Intel EM64T or AMD64 Dual-Core</li> </ul> <p><b>RAM:</b> 8 GB with 4 GB dedicated to Pentaho servers</p> <p><b>Disk Space:</b> 20 GB free after installation</p>	<ul style="list-style-type: none"> <li>• Apple Macintosh OS X Server 10.7 &amp; 10.8</li> <li>• CentOS Linux 5 &amp; 6</li> <li>• Microsoft Windows 2008 Server R2 <i>Tentative Daniel checking on R1 support</i></li> <li>• Red Hat Enterprise Linux 5 &amp; 6</li> <li>• Solaris 10</li> <li>• Ubuntu Server 10.x &amp; 12.x</li> </ul>

## Workstation

These Pentaho design tools are hardware-independent and run on client-class computers that comply with these specifications for minimum hardware and required operation systems.

- Pentaho Aggregation Designer
- Pentaho Data Integration
- Pentaho Metadata Editor
- Pentaho Report Designer
- Pentaho Schema Workbench

Hardware—32 or 64 bit	Operating System—32 or 64 bit
<p><b>Processors:</b></p> <ul style="list-style-type: none"> <li>• Apple Macintosh Dual-Core</li> <li>• Intel EM64T or AMD64 Dual-Core</li> </ul> <p><b>RAM:</b> 2 GB RAM for most of the design tools, PDI requires 2 GB dedicated</p> <p><b>Disk Space:</b> 2 GB free after installation</p> <p><b>Minimum Screen Size:</b> 1280 x 960</p>	<ul style="list-style-type: none"> <li>• Apple Macintosh OS 10.7 &amp; 10.8</li> <li>• Microsoft Windows 7</li> <li>• Ubuntu Desktop 12.x</li> </ul>

## Embedded Software

When embedding Pentaho software into other applications, the computing environment should comply with these specifications for minimum hardware and required operation systems.

- Embedded Pentaho Reporting
- Embedded Pentaho Analysis
- Embedded Pentaho Data Integration

Hardware—64 bit	Operating System—64 bit
<p><b>Processors:</b></p>	<ul style="list-style-type: none"> <li>• Apple Macintosh OS X Server 10.7 &amp; 10.8</li> <li>• CentOS Linux 5 &amp; 6</li> </ul>

Hardware—64 bit	Operating System—64 bit
<ul style="list-style-type: none"> <li>• Apple Macintosh Pro Quad-Core or Macintosh Mini Quad-Core</li> <li>• Intel EM64T or AMD64 Dual-Core</li> </ul> <p><b>RAM:</b> 8 GB with 4 GB dedicated to Pentaho servers</p> <p><b>Disk Space:</b> 20 GB free after installation</p>	<ul style="list-style-type: none"> <li>• Microsoft Windows 2008 Server R2 <i>Tentative Daniel checkinhg on R1</i></li> <li>• Microsoft Windows 7</li> <li>• Red Hat Enterprise Linux 5 &amp; 6</li> <li>• Solaris 10</li> <li>• Ubuntu Server 10.x &amp; 12.x</li> </ul>

### Application Servers

Servers to which you deploy Pentaho software must run one of these application servers.

Pentaho Software	Application Server
Pentaho Business Analysis Server Pentaho Data Integration Server	<ul style="list-style-type: none"> <li>• JBoss 7.x (EAP 6.x.x)</li> <li>• Tomcat 6.0.x</li> </ul>

### Solution Database Repositories

Pentaho software stores processing artifacts in these solution database repositories.

Pentaho Software	Database Repository
Pentaho Business Analysis Server Pentaho Data Integration Server	<ul style="list-style-type: none"> <li>• MySQL 5.x</li> <li>• Oracle 10g/11i</li> <li>• PostgreSQL 8.4 &amp; 9.1.x*</li> </ul>

\*Default installed solution database

### Data Sources

Pentaho software connects to these relational and non-relational data sources.

Pentaho Software	Data Source
Pentaho Reporting	<ul style="list-style-type: none"> <li>• JDBC 3**</li> <li>• ODBC</li> <li>• OLAP4J</li> <li>• XML</li> <li>• Pentaho Analysis</li> <li>• Pentaho Data Integration</li> <li>• Pentaho Metadata</li> <li>• Scriptable</li> </ul>
Pentaho Business Analysis Server, Action Sequences	<ul style="list-style-type: none"> <li>• Relational (JDBC)</li> <li>• Hibernate</li> <li>• Javascript</li> <li>• Metadata (MQL)</li> <li>• Mondrian (MDX)</li> <li>• XML (XQuery)</li> <li>• Security User/Role List Provider</li> <li>• Data Integration Steps (PDI)</li> <li>• Other Action Sequences</li> <li>• Web Services</li> <li>• XMLA</li> </ul>
Pentaho Data Integration	<ul style="list-style-type: none"> <li>• JDBC 3**</li> </ul>

Pentaho Software	Data Source
	<ul style="list-style-type: none"> <li>• OLAP4J</li> <li>• Salesforce</li> <li>• XML</li> <li>• CSV</li> <li>• Microsoft Excel</li> <li>• Pentaho Analysis</li> <li>• <a href="#">Hadoop distrobutions</a> *** <ul style="list-style-type: none"> <li>• Cloudera</li> <li>• CDH4</li> <li>• Hortonworks</li> <li>• MapR</li> </ul> </li> <li>• <a href="#">Cassandra distrobutions</a> <ul style="list-style-type: none"> <li>• Apache</li> <li>• DataStax</li> </ul> </li> <li>• MongoDB 2.0.4</li> </ul>

\*\*Use a JDBC 3.x compliant driver that is compatible with SQL-92 standards when communicating with relational data sources. For your convenience, we provide a [list of drivers](#) used to get data from relational JDBC databases.

\*\*\*From one of these distributions: HBase 0.90.5 and Hive 0.7.1

### SQL Dialect-Specific

Pentaho software generates dialect-specific SQL when communicating with these data sources.

Pentaho Software	Data Source
<b>Pentaho Analysis</b>	<p><i>Check on Impala with Doug Moran?</i></p> <ul style="list-style-type: none"> <li>• Access</li> <li>• Amazon Redshift</li> <li>• DB2</li> <li>• Derby</li> <li>• Firebird</li> <li>• Greenplum</li> <li>• Hsqldb</li> <li>• Infobright</li> <li>• Informix</li> <li>• Ingres</li> <li>• Interbase</li> <li>• LucidDb</li> <li>• MicrosoftSqlServer</li> <li>• MonetDB</li> <li>• MySql</li> <li>• Neoview</li> <li>• Netezza</li> <li>• Oracle</li> <li>• PostgreSQL</li> <li>• SqlStream</li> <li>• Sybase</li> <li>• Teradata</li> <li>• Vectorwise</li> <li>• Vertica</li> <li>• Other SQL-92 compliant****</li> </ul>

Pentaho Software	Data Source
<b>Pentaho Metadata</b>	<ul style="list-style-type: none"> <li>• Amazon Redshift</li> <li>• DB2</li> <li>• Firebird</li> <li>• H2</li> <li>• Hypersonic</li> <li>• Impala</li> <li>• Ingres</li> <li>• MS Access</li> <li>• ASSQL</li> <li>• MSSQLNative</li> <li>• MySQL</li> <li>• Netezza</li> <li>• Oracle</li> <li>• PostgreSQL</li> <li>• Sybase</li> <li>• Vertica</li> <li>• Other SQL-92 compliant****</li> </ul>
<b>Pentaho Data Integration</b>	<ul style="list-style-type: none"> <li>• Apache Derby</li> <li>• AS/400</li> <li>• InfiniDB</li> <li>• Exasol 4</li> <li>• Firebird SQL</li> <li>• Greenplum</li> <li>• H2</li> <li>• Hypersonic</li> <li>• IBM DB2</li> <li>• Infobright</li> <li>• Informix</li> <li>• Ingres</li> <li>• Ingres VectorWise</li> <li>• LucidDB</li> <li>• MaxDB (SAP DB)</li> <li>• MonetDB</li> <li>• MySQL</li> <li>• MS SQL Server</li> <li>• Neoview</li> <li>• Netezza</li> <li>• Oracle</li> <li>• Oracle RDB</li> <li>• PostgreSQL</li> <li>• SQLite</li> <li>• Teradata</li> <li>• UniVerse database</li> <li>• Vertica</li> <li>• Other SQL-92 compliant****</li> </ul>

\*\*\*\*If your data source is not in this list and is compatible with SQL-92, Pentaho software uses a generic SQL dialect.

## Security

Pentaho software integrates with these third-party security authentication systems.

Pentaho Software	Authentication System
Pentaho Business Analysis Server Pentaho Data Integration Server	<ul style="list-style-type: none"> <li>• Active Directory</li> <li>• CAS</li> <li>• Integrated Microsoft Windows Authentication</li> <li>• LDAP</li> <li>• RDBMS</li> </ul>

### Java Virtual Machine

All Pentaho software, except the Pentaho Mobile App, requires the Sun/Oracle version 1.7 distribution of the Java Runtime Environment (JRE) or Java Development Kit (JDK).

### Web Browsers

Pentaho supports these major versions of Web browsers that are publicly available six weeks prior to when Pentaho begins to finalize a release. We also support the preceding major version.

Pentaho Software	Web Browser
Pentaho User Console Pentaho Report Designer*****	<ul style="list-style-type: none"> <li>• Apple Safari 5.x &amp; 6.x on OSX only</li> <li>• Google Chrome</li> <li>• Microsoft Internet Explorer 8, 9, &amp; 10</li> <li>• Mozilla Firefox</li> </ul>

\*\*\*\*\*Requires a web browser to preview exported HTML reports.

### Mobile Apps

The Pentaho mobile app runs on the Apple iPad 2 & 3, with iOS 5.x & 6.x, using Safari 5.x & 6.x.



# JDBC Drivers Reference

This reference is a continuous work in progress. If you are viewing it in the Pentaho InfoCenter and see something that is not correct, know of a driver that is not listed here, or have a tip you want to share, please let us know by using the comments fields found in the bottom right corner.

Database	Vendor	URL
<i>Apache Derby</i>	IBM	<a href="http://db.apache.org/derby/derby_downloads.html">http://db.apache.org/derby/derby_downloads.html</a>
<i>Cache'</i>	InterSystems	<a href="http://www.cachemonitor.de/intersystems-documentation/cache-jdbc-driver">http://www.cachemonitor.de/intersystems-documentation/cache-jdbc-driver</a>
<i>CUBRID</i>	CUBRID	<a href="http://www.cubrid.org/?mid=downloadsitem=jdbc_driver">http://www.cubrid.org/?mid=downloadsitem=jdbc_driver</a>
<i>Daffodil DB</i>	Daffodil Software	<a href="http://sourceforge.net/projects/daffodildb/">http://sourceforge.net/projects/daffodildb/</a>
<i>DB2 AS/400</i>	IBM	<a href="http://www-03.ibm.com/systems/i/software/toolbox/">http://www-03.ibm.com/systems/i/software/toolbox/</a>
<i>DB2 Universal Database</i>	IBM	<a href="http://www-306.ibm.com/software/data/db2/java">http://www-306.ibm.com/software/data/db2/java</a>
<i>Firebird</i>	Firebird Foundation	<a href="http://www.firebirdsql.org/en/jdbc-driver/">http://www.firebirdsql.org/en/jdbc-driver/</a>
<i>FrontBase</i>	FrontBase	<a href="http://www.frontbase.com/cgi-bin/WebObjects/FBWebSite">http://www.frontbase.com/cgi-bin/WebObjects/FBWebSite</a>
<i>Greenplum</i>	EMC2	<a href="http://jdbc.postgresql.org/download.html">http://jdbc.postgresql.org/download.html</a>
<i>H2 Database</i>	H2	<a href="http://www.h2database.com">http://www.h2database.com</a>
<i>Hive</i>	Apache	<a href="http://hive.apache.org/">http://hive.apache.org/</a>
<i>HSQldb</i>	HyperSQL	<a href="http://sourceforge.net/projects/hsqldb/">http://sourceforge.net/projects/hsqldb/</a>
<i>Informix</i>	IBM	<a href="http://www-01.ibm.com/software/">http://www-01.ibm.com/software/</a>
<i>Ingres</i>	Action	<a href="http://esd.action.com/product/drivers/JDBC/java">http://esd.action.com/product/drivers/JDBC/java</a>
<i>InterBase</i>	Embarcadero	<a href="http://edn.embarcadero.com">http://edn.embarcadero.com</a>
<i>jTDS Free MS Sybase</i>	jTDS	<a href="http://jtds.sourceforge.net/">http://jtds.sourceforge.net/</a>
<i>LucidDB</i>	DynamoDB	<a href="http://www.dynamobi.com/c/downloads/stable/">http://www.dynamobi.com/c/downloads/stable/</a>
<i>MaxDB</i>	SAP	<a href="http://maxdb.sap.com">http://maxdb.sap.com</a>
<i>Mckoi</i>	Mckoi SQL Database	<a href="http://www.mckoi.com/originalmckoisql/index.html">http://www.mckoi.com/originalmckoisql/index.html</a>
<i>Mimer</i>	Mimer Information Technology	<a href="http://www.mimer.com">http://www.mimer.com</a>
<i>MonetDB</i>	MonetDB	<a href="http://www.monetdb.org/">http://www.monetdb.org/</a>
<i>MySQL</i>	Oracle	<a href="http://dev.mysql.com/downloads/connector/j/">http://dev.mysql.com/downloads/connector/j/</a>
<i>Neoview</i>	HP	<a href="https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=NEO10">https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=NEO10</a>

Database	Vendor	URL
<i>Netezza</i>	IBM	<a href="http://www.netezza.com">http://www.netezza.com</a>
<i>OpenBase SQL</i>	OpenBase International	<a href="http://www.openbase.com/index.php/products/downloads">http://www.openbase.com/index.php/products/downloads</a>
<i>Oracle</i>	Oracle	<a href="http://www.oracle.com/technetwork/database/features/jdbc/index.html">http://www.oracle.com/technetwork/database/features/jdbc/index.html</a>
<i>Pervasive</i>	Pervasive	<a href="http://www.pervasedb.com/download/Pages/PDBDownloads.aspx">http://www.pervasedb.com/download/Pages/PDBDownloads.aspx</a>
<i>PostgreSQL</i>	PostgreSQL Global Development Group	<a href="http://jdbc.postgresql.org/">http://jdbc.postgresql.org/</a>
<i>SAP DB</i>	SAP DB	<a href="http://www.sapdb.org/sap_db_jdbc.htm">http://www.sapdb.org/sap_db_jdbc.htm</a>
<i>SQLite</i>	Xerial	<a href="http://www.xerial.org/trac/Xerial/wiki/SQLiteJDBC">http://www.xerial.org/trac/Xerial/wiki/SQLiteJDBC</a>
<i>SQL Server</i>	Microsoft	<a href="http://msdn.microsoft.com/en-us/sqlserver/aa937724.aspx">http://msdn.microsoft.com/en-us/sqlserver/aa937724.aspx</a>
<i>Sybase ASE</i>	SAP	<a href="http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect">http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect</a>
<i>Sybase SQL Anywhere</i>	SAP	<a href="http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect">http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect</a>
<i>SmallSQL</i>	SmallSQL	<a href="http://www.smallsql.de/download.html">http://www.smallsql.de/download.html</a>
<i>Teradata</i>	Teradata	<a href="http://downloads.teradata.com/download/connectivity/jdbc-driver">http://downloads.teradata.com/download/connectivity/jdbc-driver</a>
<i>Vertica</i>	HP	<a href="http://www.vertica.com">http://www.vertica.com</a>

## Apache Derby

Vendor Name	Details
Recommended Native Driver	
IBM	<b>Company URL</b> <a href="http://www.ibm.com">http://www.ibm.com</a>
	<b>Driver URL</b> <a href="http://db.apache.org/derby/derby_downloads.html">http://db.apache.org/derby/derby_downloads.html</a>
	<b>JDBC URL Syntax by Type</b> Server—jdbc:derby://<server>[:<port>]/<databaseName>[;<URL attribute>=>value] Embedded—jdbc:derby:<databaseName>[;create=true]
	<b>Default Port</b> 1527
	<b>JDBC Class</b> org.apache.derby.jdbc.ClientDriver org.apache.derby.jdbc.EmbeddedDriver
<b>JDBC JAR File Name</b> derby.jar	
<b>Shipped with Pentaho Products</b>	

Vendor Name	Details
	Pentaho Data Integration
	<b>Comments</b> Open source database

**Caché**

Vendor Name	Details	
Recommended Native Driver		
InterSystems	<b>Company URL</b> <a href="http://www.cachemonitor.de">http://www.cachemonitor.de</a>	
	<b>Driver URL</b> <a href="http://www.cachemonitor.de/intersystems-documentation/cache-jdbc-driver">http://www.cachemonitor.de/intersystems-documentation/cache-jdbc-driver</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:Cache:// <server>[:<port>]/<namespace>	<b>Default Port</b> 1972
	<b>JDBC Class</b> com.intersys.jdbc.CacheDriver	<b>JDBC JAR File Name</b> cachedb.jar

**CUBRID**

Vendor Name	Details	
Recommended Native Driver		
CUBRID	<b>Company URL</b> <a href="http://www.cubrid.org">http://www.cubrid.org</a>	
	<b>Driver URL</b> <a href="http://www.cubrid.org/?mid=downloads&amp;item=jdbc_driver">http://www.cubrid.org/?mid=downloads&amp;item=jdbc_driver</a>	
	<b>JDBC URL Syntax by Type</b> Server— jdbc:cubrid:<server>:<port>:<databaseName>:<username>:<password> : [?<URL attribute>=<value>[&<URL attribute>=<value>] ... ]	<b>Default Port</b> 33000
	<b>JDBC Class</b> cubrid.jdbc.driver.CUBRIDDriver	<b>JDBC JAR File Name</b> N/A
	<b>Comments</b> Open source database highly optimized for Web applications.	

**Daffodil DB**

Vendor Name	Details
Recommended Native Driver	

Vendor Name	Details	
Daffodil Software	<b>Company URL</b> <a href="http://db.daffodilsw.com">http://db.daffodilsw.com</a>	
	<b>Driver URL</b> <a href="http://sourceforge.net/projects/daffodildb/">http://sourceforge.net/projects/daffodildb/</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:daffodilDB:// <server>[:<port>]/<databaseName> Embedded— jdbc:daffodilDB_embedded:<databaseName>	<b>Default Port</b> 3456 N/A
	<b>JDBC Class</b> in.co.daffodil.db.rmi.RmiDaffodilDBDriver in.co.daffodil.db.jdbc.DaffodilDBDriver	<b>JDBC JAR File Name</b> DaffodilDB_client.jar DaffodilDB_Embedded.jar, DaffodilDB_Common.jar
	<b>Comments</b> Open source database	

**DB2 AS/400**

Vendor Name	Details	
Recommended Native Driver		
IBM	<b>Company URL</b> <a href="http://www.ibm.com">http://www.ibm.com</a>	
	<b>Driver URL</b> <a href="http://www-03.ibm.com/systems/i/software/toolbox/">http://www-03.ibm.com/systems/i/software/toolbox/</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:as400:// <server>naming=sql;errors=full	<b>Default Port</b> N/A
	<b>JDBC Class</b> com.ibm.as400.access.AS400JDBCDriver	<b>JDBC JAR File Name</b> as400.jar
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration	

**DB2 Universal Database**

Vendor Name	Details
Recommended Native Driver	
IBM	<b>Company URL</b> <a href="http://www.ibm.com">http://www.ibm.com</a>

Vendor Name	Details	
	<b>Driver URL</b> <a href="http://www-306.ibm.com/software/data/db2/java">http://www-306.ibm.com/software/data/db2/java</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:db2://<server>[:<port>]/<databaseName>[:<URL attribute>=<value>]	<b>Default Port</b> 50000
	<b>JDBC Class</b> com.frontbase.jdbc.FBJDriver	<b>JDBC JAR File Name</b> frontbasejdbc.jar

## Firebird

Vendor Name		Details	
Recommended Native Driver			
Firebird Foundation	<b>Company URL</b> <a href="http://www.firebirdsql.org">http://www.firebirdsql.org</a>		
	<b>Driver URL</b> <a href="http://www.firebirdsql.org/en/jdbc-driver/">http://www.firebirdsql.org/en/jdbc-driver/</a>		
	<b>JDBC URL Syntax by Type</b>	<b>Default Port</b>	
	Server—jdbc:firebirdsql:<server>[/<port>]/<database-file> (JDBC Type 4, official format)	3050 3050 3050	
	Server—jdbc:firebirdsql://<server>[:<port>]/<database-file> (JDBC Type 4, compatibility format)	3050 3050 N/A	
Server—jdbc:firebirdsql:native//<server>[/<port>]/<database-file> (JDBC Type 2, compatibility format)			
Server—jdbc:firebirdsql:native://<server>[:<port>]/<database-file> (JDBC Type 2, compatibility format. Requires libraries)			
Embedded— jdbc:firebirdsql:embedded:/<local-database-file> (JDBC Type 2, compatibility format. Requires libraries)			
<b>JDBC Class</b> org.firebirdsql.jdbc.FBDriver		<b>JDBC JAR File Name</b> jaybird-full-xxx.jar	
Shipped with Pentaho Products			

Vendor Name	Details
	Pentaho Data Integration

**FrontBase**

Vendor Name	Details
Recommended Native Driver	
FrontBase	<b>Company URL</b> <a href="http://www.frontbase.com">http://www.frontbase.com</a>
	<b>Driver URL</b> <a href="http://www.frontbase.com/cgi-bin/WebObjects/FBWebSite">http://www.frontbase.com/cgi-bin/WebObjects/FBWebSite</a>
	<b>JDBC URL Syntax by Type Server—</b> jdbc:FrontBase://<host>[:<port>]/<databaseName> <b>Default Port</b> N/A
	<b>JDBC Class</b> com.frontbase.jdbc.FBJDriver <b>JDBC JAR File Name</b> frontbasejdbc.jar

**Greenplum**

Vendor Name	Details
Recommended Native Driver	
Greenplum	<b>Company URL</b> <a href="http://www.greenplum.com">http://www.greenplum.com</a>
	<b>Driver URL</b> <a href="http://jdbc.postgresql.org/download.html">http://jdbc.postgresql.org/download.html</a>
	<b>JDBC URL Syntax by Type</b> Server—jdbc:postgresql://<server>[:<port>]/<databaseName> <b>Default Port</b> 5342
	<b>JDBC Class</b> org.postgresql.Driver <b>JDBC JAR File Name</b> postgresql-8.x-xxx.jdbc4.jar
	<b>Comments</b> Greenplum uses the Postgresql JDBC driver

**H2 Database**

Vendor Name	Details
Recommended Native Driver	
H2	<b>Company URL</b> <a href="http://www.h2database.com">http://www.h2database.com</a>
	<b>Driver URL</b>

Vendor Name	Details	
	<a href="http://www.h2database.com">http://www.h2database.com</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:h2:tcp://server[:port]/file-path Embedded—jdbc:h2:file-name	<b>Default Port</b> 9092 N/A
	<b>JDBC Class</b> jdbc:h2:tcp://server[:port]/file-path org.h2.Driver	<b>JDBC JAR File Name</b> h2-x.x.xxx.jar
	<b>Shipped with Pentaho Products</b> <ul style="list-style-type: none"> <li>• Pentaho Business Analysis Server</li> <li>• Pentaho Data Integration</li> <li>• Pentaho Metadata-Editor</li> </ul> Pentaho Report-Designer	
	<b>Comments</b> Open source Java SQL database	

## Hive

Vendor Name	Details	
Recommended Native Driver		
Apache	<b>Company URL</b> <a href="http://hive.apache.org/">http://hive.apache.org/</a>	
	<b>Driver URL</b> N/A	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:hive://<server>[:<port>]/ default	<b>Default Port</b> 10000
	<b>JDBC Class</b> org.apache.hadoop.hive.jdbc.HiveDriver	<b>JDBC JAR File Name</b> hive-jdbc-x.x.x-pentaho-y.y.y.jar  Example: hive-jdbc-0.7.0- pentaho-1.0.1.jar*
	<b>Shipped with Pentaho Products</b> <ul style="list-style-type: none"><li>• Pentaho Business Analysis Server</li><li>• Pentaho Data Integration</li><li>• Pentaho Metadata-Editor</li></ul> Pentaho Report-Designer	
	<b>Comments</b> Data warehouse infrastructure that provides data summarization and on-demand querying	

Vendor Name	Details
	*x.x.x is the Hive version, y.y.y is the Pentaho version. Pentaho has enhanced the standard Hive JDBC driver

**HSQLDB**

Vendor Name	Details	
Recommended Native Driver		
HyperSQL	<b>Company URL</b> <a href="http://www.hsqldb.org">http://www.hsqldb.org</a>	
	<b>Driver URL</b> <a href="http://sourceforge.net/projects/hsqldb/">http://sourceforge.net/projects/hsqldb/</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:hsqldb:hsq:// <server>[:<port>]/<databaseName>  Embedded Memory— jdbc:hsqldb:mem:<databaseName>  Embedded File — jdbc:hsqldb:file:<database-file>	<b>Default Port</b>  9001 N/A N/A
	<b>JDBC Class</b> org.hsqldb.jdbcDriver	<b>JDBC JAR File Name</b> hsqldb.jar
	<b>Shipped with Pentaho Products</b> <ul style="list-style-type: none"><li>• Pentaho Enterprise-Console</li><li>• Pentaho Business Analysis Server</li><li>• Pentaho Aggregation-Designer</li><li>• Pentaho Data Integration</li><li>• Pentaho Metadata-Editor</li><li>• Pentaho Report-Designer</li></ul>	

**Informix**

Vendor Name		Details	
Recommended Native Driver			
IBM	<b>Company URL</b> <a href="http://www.ibm.com">http://www.ibm.com</a>		
	<b>Driver URL</b> =		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:informix-sqli://<server>[:<port>]/<databaseName>:informixserver=<dbservername>		<b>Default Port</b> 1533
	<b>JDBC Class</b> com.informix.jdbc.IfxDriver		<b>JDBC JAR File Name</b> ifxjdbc.jar



Vendor Name	Details
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration

## Ingres

Vendor Name		Details	
Recommended Native Driver			
Actian	<b>Company URL</b> <a href="http://www.actian.com/">http://www.actian.com/</a>		
	<b>Driver URL</b> <a href="http://esd.actian.com/product/drivers/JDBC/java">http://esd.actian.com/product/drivers/JDBC/java</a>		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:ingres:// <server>[:<port>]/<databaseName>		<b>Default Port</b> 21071
	<b>JDBC Class</b> com.ingres.jdbc.IngresDriver		<b>JDBC JAR File Name</b> ijjdbc.jar
	<b>Comments</b> Open source relational database management system		

## InterBase

Vendor Name	Details	
Recommended Native Driver		
Embarcadero	<b>Company URL</b> <a href="http://edn.embarcadero.com">http://edn.embarcadero.com</a>	
	<b>Driver URL</b> N/A	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:interbase://<server>/<full_db_path>	<b>Default Port</b> N/A
	<b>JDBC Class</b> interbase.interclient.Driver	<b>JDBC JAR File Name</b> interclient.jar
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration	

## jTDS Free MS SQL Sybase

Vendor Name	Details
Recommended Native Driver	

Vendor Name	Details	
jTDS	<b>Company URL</b> <a href="http://jtds.sourceforge.net/">http://jtds.sourceforge.net/</a>	
	<b>Driver URL</b> N/A	
	<b>JDBC URL Syntax by Type</b> SQL Server— jdbc:jtds:<server_type>// <server>[:<port>][/<database>] [;<property>=<value>[;...]]] Sybase—jdbc:jtds:<server_type>:// <server>[:<port>][/<database>]	<b>Default Port</b> 1433 7100
	<b>JDBC Class</b> interbase.interclient.Driver	<b>JDBC JAR File Name</b> jtds-x.x.x.jar
	<b>Shipped with Pentaho Products</b> <ul style="list-style-type: none"> <li>• Pentaho Enterprise-Console</li> <li>• Pentaho Business Analysis Server</li> <li>• Pentaho Aggregation-Designer</li> <li>• Pentaho Data Integration</li> <li>• Pentaho Metadata-Editor</li> <li>• Pentaho Report-Designer</li> </ul>	

## LucidDB

Vendor Name	Details	
Recommended Native Driver		
DynamoDB	<b>Company URL</b> <a href="http://www.dynamobi.com">http://www.dynamobi.com</a>	
	<b>Driver URL</b> <a href="http://www.dynamobi.com/c/downloads/stable/">http://www.dynamobi.com/c/downloads/stable/</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:luciddb:http:// <server>[:<port>]	<b>Default Port</b> 8034
	<b>JDBC Class</b> org.luciddb.jdbc.LucidDbClientDriver	<b>JDBC JAR File Name</b> LucidDbClient-x.x.x.jar
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration	
	<b>Comments</b> Open source BI solution for Big Data	

**MaxDB**

Vendor Name		Details	
Recommended Native Driver			
SAP	<b>Company URL</b> <a href="http://www.sap.com">http://www.sap.com</a>		
	<b>Driver URL</b> <a href="http://maxdb.sap.com">http://maxdb.sap.com</a>		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:sapdb:// <server>[:<port>]/<databaseName>		<b>Default Port</b> 7210
	<b>JDBC Class</b> com.sap.dbtech.jdbc.DriverSapDB		<b>JDBC JAR File Name</b> sapdbc.jar
	<b>Comments</b> Database management system developed and supported by SAP AG		

**Mckoi SQL Database**

Vendor Name		Details	
Recommended Native Driver			
Mckoi	<b>Company URL</b> <a href="http://www.mckoi.com">http://www.mckoi.com</a>		
	<b>Driver URL</b> <a href="http://www.mckoi.com/originalmckoisql/index.html">http://www.mckoi.com/originalmckoisql/index.html</a>		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:mckoi:// <server>[:<port>][/<schema>]/	<b>Default Port</b> 9157	
	<b>JDBC Class</b> com.mckoi.JDBCdriver	<b>JDBC JAR File Name</b> mckoidb.jar	
	<b>Comments</b> Open source SQL database written in Java		

**Mimer**

Vendor Name		Details	
Recommended Native Driver			
Mimer Information Technology		<b>Company URL</b> <a href="http://www.mimer.com">http://www.mimer.com</a>	
		<b>Driver URL</b> N/A	

Vendor Name	Details	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:mimer:<protocol>://<server>[:<port>]/<database>	<b>Default Port</b> 1360
	<b>JDBC Class</b> com.mimer.jdbc.Driver	<b>JDBC JAR File Name</b> mimer.jar

## MonetDB

Vendor Name	Details	
Recommended Native Driver		
MonetDB	<b>Company URL</b> <a href="http://www.monetdb.org">http://www.monetdb.org</a>	
	<b>Driver URL</b> N/A	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:monetdb:// <server>[:<port>]/<database>	<b>Default Port</b> 50000
	<b>JDBC Class</b> nl.cwi.monetdb.jdbc.MonetDriver	<b>JDBC JAR File Name</b> monetdb-jdbc-x.x.jar
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration	
	<b>Comments</b> An open source database system	

## MY SQL

Vendor Name	Details	
Recommended Native Driver		
Oracle	<b>Company URL</b> <a href="http://www.mysql.com">http://www.mysql.com</a>	
	<b>Driver URL</b> <a href="http://dev.mysql.com/downloads/connector/j/">http://dev.mysql.com/downloads/connector/j/</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:mysql:// <hostname>[,<failoverhost> [:<port>] /<dbname>[?<URL attribute>=<value>[&<URL attribute>=<value>] ... ]	<b>Default Port</b> 3306
	<b>JDBC Class</b>	<b>JDBC JAR File Name</b>

Vendor Name	Details	
	com.mysql.jdbc.Driver (official class name)  org.gjt.mm.mysql.Driver (older class name)	mysql-connector-java-5.x.xx-bin.jar
	<b>Shipped with Pentaho Product</b> <ul style="list-style-type: none"> <li>• Pentaho Enterprise-Console</li> <li>• Pentaho Business Analysis Server</li> <li>• Pentaho Aggregation-Designer</li> <li>• Pentaho Metadata-Editor</li> <li>• Pentaho Report-Designer</li> </ul>	

**Neoview**

Vendor Name	Details	
Recommended Native Driver		
HP	<b>Company URL</b> <a href="http://www.hp.com">http://www.hp.com</a>	
	<b>Driver URL</b> <a href="https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=NEO10">https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=NEO10</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:hpt4jdbc:// <system>[:<port>]/[:]<URL attribute>= <value>[:<URL attribute>=<value> ...]	<b>Default Port</b> 18650
	<b>JDBC Class</b> com.hp.t4jdbc.HPT4Driver	<b>JDBC JAR File Name</b> N/A

**Netezza**

Vendor Name	Details	
Recommended Native Driver		
IBM	<b>Company URL</b> <a href="http://www.netezza.com">http://www.netezza.com</a>	
	<b>Driver URL</b> N/A	
	<b>JDBC URL Syntax by Type</b> jdbc:netezza://<server>[:<port>]/<database>	<b>Default Port</b> 5480
	<b>JDBC Class</b> org.netezza.Driver	<b>JDBC JAR File Name</b> N/A

**OpenBase SQL**

Vendor Name		Details	
Recommended Native Driver			
OpenBase International	<b>Company URL</b> <a href="http://www.openbase.com">http://www.openbase.com</a>		
	<b>Driver URL</b> <a href="http://www.openbase.com/index.php/products/downloads">http://www.openbase.com/index.php/products/downloads</a>		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:openbase://<server>/<databaseName>		<b>Default Port</b> N/A
	<b>JDBC Class</b> com.openbase.jdbc.ObDriver		<b>JDBC JAR File Name</b> OpenBaseJDBC.jar

**Oracle**

Vendor Name		Details	
Recommended Native Driver			
Oracle	<b>Company URL</b> <a href="http://www.oracle.com">http://www.oracle.com</a>		
	<b>Driver URL</b> <a href="http://www.oracle.com/technetwork/database/features/jdbc/index.html">http://www.oracle.com/technetwork/database/features/jdbc/index.html</a>		
	<b>JDBC URL Syntax by Type</b> Thin Server— jdbc:oracle:thin:@<server>[:<port>]:<sid> OCI Server —jdbc:oracle:oci:@<server>[:<port>]:<sid>		<b>Default Port</b> 1521
	<b>JDBC Class</b> oracle.jdbc.driver.OracleDriver oracle.jdbc.OracleDriver		<b>JDBC JAR File Name</b> ojdbcx.jar, ora18n.jar
	<b>Comments</b> The OCI server requires OCI libraries		

**Pervasive**

Vendor Name		Details	
Recommended Native Driver			
Pervasive		<b>Company URL</b> <a href="http://www.pervasivedb.com/Pages/default.aspx">http://www.pervasivedb.com/Pages/default.aspx</a>	
		<b>Driver URL</b> <a href="http://www.pervasivedb.com/download/Pages/PDBDownloads.aspx">http://www.pervasivedb.com/download/Pages/PDBDownloads.aspx</a>	

Vendor Name	Details	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:pervasive:// <server>[:<port>]/<datasource>	<b>Default Port</b> 1583
	<b>JDBC Class</b> com.pervasive.jdbc.v2.Driver	<b>JDBC JAR File Name</b> N/A
	<b>Shipped with Pentaho Products</b> <ul style="list-style-type: none"> <li>• Pentaho Data Integration</li> <li>• Pentaho Report-Designer</li> </ul>	
	<b>Comments</b> The data source is the ODBC DSN	

## PostgreSQL

Vendor Name	Details	
Recommended Native Driver		
PostgreSQL Global Development Group	<b>Company URL</b> <a href="http://www.postgresql.org/">http://www.postgresql.org/</a>	
	<b>Driver URL</b> <a href="http://jdbc.postgresql.org/">http://jdbc.postgresql.org/</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:postgresql:// <server>[:<port>]/<databaseName>	<b>Default Port</b> 5342
	<b>JDBC Class</b> org.postgresql.Driver	<b>JDBC JAR File Name</b> postgresql-8.x-xxx.jdbc4.jar
	<b>Shipped with Pentaho Products</b> <ul style="list-style-type: none"><li>• Pentaho Data Integration</li><li>• Pentaho Report-Designer</li></ul>	

## SAP DB

Vendor Name		Details	
Recommended Native Driver			
SAP DB	<b>Company URL</b> N/A		
	<b>Driver URL</b> <a href="http://www.sapdb.org/sap_db_jdbc.htm">http://www.sapdb.org/sap_db_jdbc.htm</a>		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:sapdb://<server>/<database_name>		<b>Default Port</b> N/A

Vendor Name	Details	
	<b>JDBC Class</b> com.sap.dbtech.jdbc.DriverSapDB	<b>JDBC JAR File Name</b> sapdbc-x.x.x.jar
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration	
	<b>Comments</b> FREE Enterprise Open Source Database	

## SQLite

Vendor Name	Details	
Recommended Native Driver		
Xerial	<b>Company URL</b> N/A	
	<b>Driver URL</b> <a href="http://www.xerial.org/trac/Xerial/wiki/SQLiteJDBC">http://www.xerial.org/trac/Xerial/wiki/SQLiteJDBC</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:sqlite:<filename.db>	<b>Default Port</b> N/A
	<b>JDBC Class</b> org.sqlite.JDBC	<b>JDBC JAR File Name</b> sqlite-jdbc-x.x.x.jar
	<b>Shipped with Pentaho Products</b> Pentaho Data Integration	

## SQL Server

Vendor Name	Details	
Recommended Native Driver		
Microsoft	<b>Company URL</b> <a href="http://www.microsoft.com">http://www.microsoft.com</a>	
	<b>Driver URL</b> <a href="http://msdn.microsoft.com/en-us/sqlserver/aa937724.aspx">http://msdn.microsoft.com/en-us/sqlserver/aa937724.aspx</a>	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:sqlserver:// <server>[:<port>];DatabaseName=<databaseName>	<b>Default Port</b> 1433
	<b>JDBC Class</b> com.microsoft.sqlserver.jdbc.SQLServerDriver	<b>JDBC JAR File Name</b> sqljdbc4.jar
	<b>Comments</b> The open source jtds driver also works with MSSQL	



**Sybase ASE**

Vendor Name		Details	
Recommended Native Driver			
SAP	<b>Company URL</b> <a href="http://www.sybase.com">http://www.sybase.com</a>		
	<b>Driver URL</b> <a href="http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect">http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect</a>		
	<b>JDBC URL Syntax by Type</b> Server— jdbc:sybase:Tds:<server>[:<port>]/<databaseName>	<b>Default Port</b> 5000	
	<b>JDBC Class</b> com.sybase.jdbc4.jdbc.SybDriver	<b>JDBC JAR File Name</b> N/A	
	<b>Comments</b> The open source jTDS driver works with Sybase as well		

**Sybase SQL Anywhere**

Vendor Name		Details	
Recommended Native Driver			
SAP	<b>Company URL</b> <a href="http://www.sybase.com">http://www.sybase.com</a>		
	<b>Driver URL</b> <a href="http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect">http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect</a>		
	<b>JDBC URL Syntax by Type</b> Server— jdbc:sybase:Tds:<server>[:<port>]/<databaseName>		<b>Default Port</b> 2638
	<b>JDBC Class</b> com.sybase.jdbc4.jdbc.SybDriver		<b>JDBC JAR File Name</b> N/A
	<b>Comments</b> This open source jTDS driver works with Sybase as well		

**SmallSQL**

Vendor Name		Details	
Recommended Native Driver			
SmallSQL		<b>Company URL</b> <a href="http://www.smallsql.de/">http://www.smallsql.de/</a>	
		<b>Driver URL</b>	

Vendor Name	Details	
	<a href="http://www.smallsql.de/download.html">http://www.smallsql.de/download.html</a>	
	<b>JDBC URL Syntax by Type</b> Embedded— jdbc:smallsql:databaseName[?URL attribute=value[URLattribute=value] ...]	<b>Default Port</b> N/A
	<b>JDBC Class</b> smallsql.database.SSDriver	<b>JDBC JAR File Name</b> smallsql.jar
	<b>Comments</b> Java desktop SQL database engine	

### Teradata

Vendor Name		Details	
Recommended Native Driver			
Teradata	<b>Company URL</b> <a href="http://www.teradata.com">http://www.teradata.com</a>		
	<b>Driver URL</b> <a href="http://downloads.teradata.com/download/connectivity/jdbc-driver">http://downloads.teradata.com/download/connectivity/jdbc-driver</a>		
	<b>JDBC URL Syntax by Type</b> Server—jdbc:teradata://<dbshost>[/<URL attribute>[;<URL attribute>]...]		<b>Default Port</b> N/A
	<b>JDBC Class</b> com.teradata.jdbc.TeraDriver		<b>JDBC JAR File Name</b> terajdbc4.jar

### Vertica

Vendor Name	Details	
Recommended Native Driver		
HP	<b>Company URL</b> <a href="http://www.vertica.com">http://www.vertica.com</a>	
	<b>Driver URL</b> TBD	
	<b>JDBC URL Syntax by Type</b> Server—jdbc:vertica:// <server>[:<port>]/<databaseName>	<b>Default Port</b> 5433
	<b>JDBC Class</b> com.vertica.Driver	<b>JDBC JAR File Name</b> N/A