



Review Supported Technologies

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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
<p>Processor:</p> <ul style="list-style-type: none">• Apple Macintosh Pro Quad-Core or Macintosh Mini Quad-Core• Intel EM64T or AMD64 Dual-Core <p>RAM: 8 GB with 4 GB dedicated to Pentaho servers</p> <p>Disk Space: 20 GB free after installation</p>	<ul style="list-style-type: none">• Apple Macintosh OS X Server 10.9 & 10.10• CentOS Linux 5 & 6• Microsoft Windows 2008 Server R2, 2012 Server• Red Hat Enterprise Linux 5 & 6• Solaris 10• Ubuntu Server 12.04 LTS & 14.04 LTS

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
- Pentaho Mobile

Hardware—32 or 64 bit	Operating System—32 or 64 bit
Processors: <ul style="list-style-type: none"> • Apple Macintosh Dual-Core, 64 bit only • Intel EM64T or AMD64 Dual-Core RAM: 2 GB RAM for most of the design tools, PDI requires 2 GB dedicated Disk Space: 2 GB free after installation Minimum Screen Size: 1280 x 960	<ul style="list-style-type: none"> • Apple Macintosh OS 10.9 (Maverick) & 10.10 (Yosemite), 64 bit only • Microsoft Windows 7 & 8 • Ubuntu Desktop 12.04 LTS & 14.04 LTS • iPad 2, 3, & Air (iOS 7.x & 8.x)

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
Processors: <ul style="list-style-type: none"> • Apple Macintosh Pro Quad-Core or Macintosh Mini Quad-Core • Intel EM64T or AMD64 Dual-Core RAM: 8 GB with 4 GB dedicated to Pentaho servers Disk Space: 20 GB free after installation	<ul style="list-style-type: none"> • Apple Macintosh OS X Server 10.9 & 10.10 • CentOS Linux 5 & 6 • Microsoft Windows 2008 Server R2, 2012 • Microsoft Windows 7 & 8 • Red Hat Enterprise Linux 5 & 6 • Solaris 10 • Ubuntu Server 12.04 LTS & 14.04 LTS

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"> • JBoss EAP 6.1.x and 6.2.x • Tomcat 6.0.x (shipped) • Tomcat 7.0

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">• MySQL 5.5, 5.6• Oracle 10/11• PostgreSQL 9.1*, 9.2• MS SQL Server 2008, 2012

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

Pentaho Software	Data Source
	<ul style="list-style-type: none"> • OLAP4J • Salesforce • XML • CSV • Microsoft Excel

**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.

Big Data Sources

Pentaho software connects to these big data sources.

Data Source	Versions	Analyzer	PIR & PDD	PR	DSW	PDIServer/ Spoon	PRD	PSW	PME
Apache	0.20.2*	Y	Y	Y	Y	Y	Y	Y	Y
Cloudera	4.7, 5.3	N	N	N	N	Y	N	N	N
	via Impala 1.4.x	Y	Y	Y	Y	Y	Y	Y	Y
Datastax	4.5, 4.6	N	N	N	N	Y	N	N	N
Hortonworks	1.3.3, 2.3	N	N	N	N	Y	N	N	N
	via Hive2 Stinger 0.13	N	Y	Y	Y	Y	Y	N	Y
MapR	3.1.1, 4.0.2	N	N	N	N	Y	N	N	N
	via Hive2 0.13	N	Y	Y	Y	Y	Y	N	Y
Greenplum	4.2, 4.3	Y	Y	Y	Y	Y	Y	Y	Y
MongoDB	2.6, 3.0	Y	N	Y	N	Y	Y	N	N
Netezza	7.0.3, 7.1.0	Y	Y	Y	Y	Y	Y	Y	Y
SAP HANA	SPS 09	N	N	N	N	Y	N	N	N
Teradata	14.10, 15.0	Y	Y	Y	Y	Y	Y	Y	Y

Data Source	Versions	Analyzer	PIR & PDD	PR	DSW	PDI Server/Spoon	PRD	PSW	PME
Vertica	7.0, 7.1	Y	Y	Y	Y	Y	Y	Y	Y

* Pentaho is pre-configured for Apache Hadoop 0.20.2.

NOTE:

Acronyms: PIR - Pentaho Interactive Reporting, PDD - Pentaho Dashboard Designer, PR - Published Reports, DSW - Data Source Wizard, PDI - Pentaho Data Integration, PRD - Pentaho Report Designer, PSW - Pentaho Schema Workbench, PME - Pentaho Metadata Editor

SQL Dialect-Specific

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

Pentaho Software	Data Source
Pentaho Analysis	<ul style="list-style-type: none"> • Access • Amazon Redshift • DB2 • Derby • Firebird • Greenplum • Hsqldb • Impala • Infobright • Informix • Ingres • Interbase • LucidDb • MicrosoftSqlServer • MonetDB • MySql • Neoview • Netezza • Oracle • PostgreSQL • SqlStream • Sybase • Teradata • Vectorwise • Vertica

Pentaho Software	Data Source
	<ul style="list-style-type: none"> • Other SQL-89 compliant****
Pentaho Metadata	<ul style="list-style-type: none"> • Amazon Redshift • DB2 • Firebird • H2 • Hive 2 • Hypersonic • Impala • Ingres • MS Access • ASSQL • MSSQLNative • MySQL • Netezza • Oracle • PostgresSQL • Sybase • Vertica • Other SQL-92 compliant*****
Pentaho Data Integration	<ul style="list-style-type: none"> • Amazon Redshift • Apache Derby • AS/400 • InfiniDB • Exasol 4 • Firebird SQL • Greenplum • H2 • Hive • Hive 2 • Hypersonic • IBM DB2 • Impala • Infobright • Informix • Ingres • Ingres VectorWise • LucidDB • MaxDB (SAP DB)

Pentaho Software	Data Source
	<ul style="list-style-type: none"> • MonetDB • MySQL • Neoview • Netezza • Oracle • Oracle RDB • PostgreSQL • SAP HANA • SQLite • Teradata • UniVerse database • Vertica • Other SQL-92 compliant****

****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"> • Active Directory • CAS • Integrated Microsoft Windows Authentication • LDAP • RDBMS

Java Virtual Machine

Pentaho software requirements for Java Runtime Environment (JRE).

Pentaho Software	Java Runtime Environment
All Pentaho software, except Pentaho Mobile App	<ul style="list-style-type: none"> • Oracle Java 7 • Oracle Java 6 (build target).

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">• Apple Safari 7.x & 8.x on OSX and iOS only• Google Chrome 41 - 42• Microsoft Internet Explorer 8 - 11*****• Mozilla Firefox 37 - 38

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

*****Microsoft Internet Explorer does not render the Pentaho User Console correctly if you are using Compatibility Modes.

Mobile Apps

The Pentaho mobile app runs on the Apple iPad 2 and later, with iOS 7.x & 8.x using Safari mobile.

Support Statement for Analyzer on Impala

Using Analyzer on Impala

These are the minimum requirements for Analyzer to work with Impala.

1. Use minimum Pentaho BA Suite EE 5.1 or later.
2. Use minimum Cloudera CDH5.x, Impala 1.3.x or later.
3. Recommend using Parquet compressed file format for tables in Impala.
4. Recommend that you use Simba JDBC driver, OEM'd by Cloudera.
5. Make sure that the [JDBC driver](#) is dropped into the BA Server and Schema Workbench directories.
6. Turn off connection pooling in Pentaho BA Server.
7. Set global order by limit in Cloudera manager.
8. In Mondrian schemas, divide dimension tables with high cardinality into several levels.

There are some compiled Mondrian automated test suite results for Analyzer on Impala with OEM Simba, as well as the community Apache Hive driver.

- [Analyzer on Impala with OEM Simba](#)
- [Analyzer on Impala with community Apache Hive driver](#)

JDBC Drivers Reference

This reference is a continuous work in progress. If you 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 at the bottom of this article.

Database	Vendor	URL
Amazon Redshift	Amazon	http://docs.aws.amazon.com/redshift/latest/mgmt/configure-jdbc-connection.html
Apache Derby	IBM	http://db.apache.org/derby/derby_downloads.html
Cache'	InterSystems	http://www.cachemonitor.de/intersystems-documentation/cache-jdbc-driver
CUBRID	CUBRID	http://www.cubrid.org/?mid=downloadsitem=jdbc_dr
Daffodil DB	Daffodil Software	http://sourceforge.net/projects/daffodildb/
DB2 AS/400	IBM	http://www-03.ibm.com/systems/i/software/toolbox/
DB2 Universal Database	IBM	http://www-306.ibm.com/software/data/db2/java
Firebird	Firebird Foundation	http://www.firebirdsql.org/en/jdbc-driver/
FrontBase	FrontBase	http://www.frontbase.com/cgi-bin/WebObjects/FBWebSite
Greenplum	EMC2	http://jdbc.postgresql.org/download.html
H2 Database	H2	http://www.h2database.com
Hive	Apache	http://hive.apache.org/
Hive2	Apache	
HSQLDB	HyperSQL	http://sourceforge.net/projects/hsqldb/

Database	Vendor	URL
Impala	Cloudera	http://www.cloudera.com/content/cloudera-content/cloudera-docs/Impala/latest/Installing-and-Using-Impala/ciiu_impala_jdbc.html
Informix	IBM	http://www-01.ibm.com/software/
Ingres	Action	http://esd.action.com/product/drivers/JDBC/java
InterBase	Embarcadero	http://edn.embarcadero.com
jTDS Free MS Sybase	jTDS	http://jtds.sourceforge.net/
LucidDB	LucidDB	http://sourceforge.net/projects/luciddb
MaxDB	SAP	http://maxdb.sap.com
Mckoi	Mckoi SQL Database	http://www.mckoi.com/originalmckoisql/index.html
Mimer	Mimer Information Technology	http://www.mimer.com
MonetDB	MonetDB	http://www.monetdb.org/
MySQL	Oracle	http://dev.mysql.com/downloads/connector/j/
Neoview	HP	https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=NEO10
Netezza	IBM	http://www.netezza.com
OpenBase SQL	OpenBase International	http://www.openbase.com/index.php/products/downloads
Oracle	Oracle	http://www.oracle.com/technetwork/database/features/jdbc/index.html
Pervasive	Pervasive	http://www.pervasivedb.com/download/Pages/PDBDownloads.aspx
PostgreSQL	PostgreSQL Global Development Group	http://jdbc.postgresql.org/
SAP DB	SAP DB	http://www.sapdb.org/sap_db_jdbc.htm
SAP HANA	SAP	http://sap.hana.com

Database	Vendor	URL
SQLite	Xerial	http://www.xerial.org/trac/Xerial/wiki/SQLiteJDBC
SQL Server	Microsoft	http://msdn.microsoft.com/en-us/sqlserver/aa937724.aspx
Sybase ASE	SAP	http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect
Sybase SQL Anywhere	SAP	http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect
SmallSQL	SmallSQL	http://www.smallsql.de/download.html
Teradata	Teradata	http://downloads.teradata.com/download/connectivity/jdbc-driver
Vertica	HP	http://www.vertica.com

Amazon Redshift

Vendor Name	Details	
Recommended Native Driver		
Amazon Web Services	Company URL http://aws.amazon.com/redshift/	
	Driver URL https://s3.amazonaws.com/redshift-downloads/drivers/RedshiftJDBC4.jar	
	JDBC URL Syntax by Type jdbc:postgresql://<endpoint>:<port>/<database>?tcpKeepAlive=true	Default Port 5439
	JDBC Class com.amazon.redshift.jdbc4.Driver	JDBC JAR File Name RedshiftJDBC4.jar
	Comments	

Vendor Name	Details
	Download and use only the RedshiftJDBC4.jar.

Apache Derby

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

Caché

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

CUBRID

Vendor Name	Details	
Recommended Native Driver		
CUBRID	Company URL http://www.cubrid.org	
	Driver URL http://www.cubrid.org/?mid=downloads&item=jdbc_driver	
	JDBC URL Syntax by Type Server—jdbc:cubrid:<server>:<port>:<databaseName>:<username>:<password> :[?<URL attribute>=<value> [&<URL attribute>=<value>] ...]	Default Port 33000

Vendor Name	Details	
	JDBC Class cubrid.jdbc.driver.CUBRIDDriver	JDBC JAR File Name N/A
	Comments Open source database highly optimized for Web applications.	

Daffodil DB

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

DB2 AS/400

Vendor Name	Details	
Recommended Native Driver		
IBM	Company URL http://www.ibm.com	
	Driver URL http://www-01.ibm.com/support/docview.wss?uid=swg21363866	
	JDBC URL Syntax by Type Server—jdbc:as400://<server>naming=sql;errors=full N/A	Default Port N/A
	JDBC Class com.ibm.as400.access.AS400JDBCDriver	JDBC JAR File Name jdbc400.jar

DB2 Universal Database

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

Firebird

Vendor Name	Details	
Recommended Native Driver		
Firebird Foundation	Company URL http://www.firebirdsql.org	
	Driver URL http://www.firebirdsql.org/en/jdbc-driver/	
	JDBC URL Syntax by Type	Default Port
	Server—jdbc:firebirdsql:<server>[/<port>]:/<database-file> (JDBC Type 4, official format)	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)		
JDBC Class	JDBC JAR File Name	

Vendor Name	Details	
	org.firebirdsql.jdbc.FBDriver	jaybird-full-xxx.jar
	Shipped with Pentaho Products Pentaho Data Integration	

FrontBase

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

Greenplum

Vendor Name	Details
Recommended Native Driver	
Greenplum	Company URL http://www.greenplum.com
	Driver URL

Vendor Name	Details	
	http://jdbc.postgresql.org/download.html	
	JDBC URL Syntax by Type Server—jdbc:postgresql://<server>[:<port>]/<databaseName>	Default Port 5432
	JDBC Class org.postgresql.Driver	JDBC JAR File Name postgresql-8.x-xxx.jdbc4.jar
	Comments Greenplum uses the Postgresql JDBC driver	

H2 Database

Vendor Name	Details	
Recommended Native Driver		
H2	Company URL http://www.h2database.com	
	Driver URL http://www.h2database.com	
	JDBC URL Syntax by Type Server—jdbc:h2: tcp://server [:port]/file-path Embedded—jdbc:h2:file-name	Default Port 10092 N/A
	JDBC Class jdbc:h2: tcp://server [:port]/file-path org.h2.Driver	JDBC JAR File Name h2-x.x.xxx.jar
	Shipped with Pentaho Products	

Vendor Name	Details
	<ul style="list-style-type: none"> • Pentaho Business Analysis Server • Pentaho Data Integration • Pentaho Metadata-Editor <p>Pentaho Report-Designer</p>
	<p>Comments</p> <p>Open source Java SQL database</p>

Hive

Vendor Name	Details	
Recommended Native Driver		
Apache	Company URL http://hive.apache.org/	
	Driver URL Built in	
	JDBC URL Syntax by Type Server—jdbc:hive://<server>[:<port>]	Default Port 10000
	JDBC Class org.apache.hadoop.hive.jdbc.HiveDriver	JDBC JAR File Name pentaho-hadoop-hive-jdbc-shim-x.x.x.jar
	Shipped with Pentaho Products <ul style="list-style-type: none">• Pentaho Business Analysis Server• Pentaho Data Integration• Pentaho Metadata-Editor• Pentaho Report-Designer	

Vendor Name	Details
	<p>Comments</p> <p>The pentaho-hadoop-hive-jdbc-shim-xxx.jar library is a proxy driver. The actual Hive JDBC implementation for the specific distribution and version of Hadoop is located in the Pentaho Configuration (shim) for that distro. See Hadoop Configuraiton for more information.</p> <p>Hive does not support the full SQL capabilities. It uses a subset and is more accurately referred to as HiveQL.</p>

Hive2

Vendor Name	Details	
Recommended Native Driver		
Apache	Company URL http://hive.apache.org/	
	Driver URL Built in	
	JDBC URL Syntax by Type Server—jdbc:hive2://<server>[:<port>]<db>	Default Port 10000
	JDBC Class org.apache.hive.jdbc. HiveDriver	JDBC JAR File Name pentaho-hadoop-hive-jdbc-shim-x.x.x.jar
	Shipped with Pentaho Products <ul style="list-style-type: none">• Pentaho Business Analysis Server• Pentaho Data Integration• Pentaho Metadata-Editor• Pentaho Report-Designer	
	Comments	

Vendor Name	Details
	<p>The pentaho-hadoop-hive-jdbc-shim-xxx.jar library is a proxy driver. The actual Hive JDBC implementation for the specific distribution and version of Hadoop is located in the Pentaho Configuration (shim) for that distro. See Hadoop Configuraiton for more information.</p> <p>Hive2 does not support the full SQL capabilities. It uses a subset and is more accurately referred to as HiveQL.</p>

HSQldb

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

Vendor Name	Details
	<ul style="list-style-type: none"> Pentaho Report-Designer

Impala

Vendor Name	Details	
Recommended Native Driver		
Cloudera	Company URL http://cloudera.com	
	Driver URL Built in	
	JDBC URL Syntax by Type jdbc:hive2://<server>[<port>]/;auth=ntlm	Default Port 21050
	JDBC Class org.apache.hadoop.hive.jdbc.HiveDriver	JDBC JAR File Name pentaho-hadoop-hive-jdbc-shim-x.x.x.jar
	Shipped with Pentaho Products <ul style="list-style-type: none">• Pentaho Business Analysis Server• Pentaho Data Integration• Pentaho Metadata-Editor• Pentaho Report-Designer	
	Comments The pentaho-hadoop-hive-jdbc-shim-xxx.jar library is a proxy driver. The actual Hive JDBC implementation for the specific distribution and version of Hadoop is located in the Pentaho Configuration (shim) for that distro. See Hadoop Configuraiton for more information.	

Vendor Name	Details
	Hive does not support the full SQL capabilities. It uses a subset and is more accurately referred to as HiveQL.

Informix

Vendor Name	Details	
Recommended Native Driver		
IBM	Company URL http://www.ibm.com	
	Driver URL <div>http://wwl4.software.ibm.com/webapp/download/search.jsp?go=y&rs=ifxjdbc</div>	
	JDBC URL Syntax by Type Server—jdbc:informix-sqli://<server>[:<port>]/<databaseName>:informixserver=<dbservername>	Default Port 1533
	JDBC Class com.informix.jdbc.IfxDriver	JDBC JAR File Name ifxjdbc.jar

Ingres

Vendor Name	Details
Recommended Native Driver	
Actian	Company URL http://www.actian.com/

Vendor Name	Details	
	Driver URL http://esd.actian.com/product/drivers/JDBC/java	
	JDBC URL Syntax by Type Server—jdbc:ingres://<server>[:<port>]/<databaseName>	Default Port 21071
	JDBC Class com.ingres.jdbc.IngresDriver	JDBC JAR File Name iijdbc.jar
	Comments Open source relational database management system	

InterBase

Vendor Name	Details	
Recommended Native Driver		
Embarcadero	Company URL http://edn.embarcadero.com	
	Driver URL N/A	
	JDBC URL Syntax by Type Server—jdbc:interbase://<server>/<full_db_path>	Default Port N/A
	JDBC Class interbase.interclient.Driver	JDBC JAR File Name interclient.jar

jTDS Free MS SQL Sybase

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

LucidDB

Vendor Name	Details
Recommended Native Driver	
DynamoDB	Company URL

Vendor Name	Details	
	http://www.luciddb.com	
	Driver URL http://sourceforge.net/projects/luciddb/	
	JDBC URL Syntax by Type Server—jdbc:luciddb:http://<server>[:<port>]	Default Port 8034
	JDBC Class org.luciddb.jdbc.LucidDbClientDriver	JDBC JAR File Name LucidDbClient-x.x.x.jar
	Shipped with Pentaho Products Pentaho Data Integration	
	Comments Open source BI solution for Big Data	

MaxDB

Vendor Name	Details	
Recommended Native Driver		
SAP	Company URL http://www.sap.com	
	Driver URL http://maxdb.sap.com	
	JDBC URL Syntax by Type Server—jdbc:sapdb://<server>[:<port>]<DatabaseName>	Default Port 7110
	JDBC Class com.sap.dbtech.jdbc.DriverSapDB	JDBC JAR File Name sapdbc.jar

Vendor Name	Details
	Comments Database management system developed and supported by SAP AG

Mckoi SQL Database

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

Mimer

Vendor Name	Details
Recommended Native Driver	
Mimer Information Technology	Company URL http://www.mimer.com
	Driver URL

Vendor Name	Details	
	N/A	
	JDBC URL Syntax by Type Server—jdbc:mimer:<protocol>://<server>[:<port>]/<database>	Default Port 1250
	JDBC Class com.mimer.jdbc.Driver	JDBC JAR File Name mimer.jar

MonetDB

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

MY SQL

Vendor Name	Details	
Recommended Native Driver		
Oracle	Company URL http://www.mysql.com	
	Driver URL http://dev.mysql.com/downloads/connector/j/	
	JDBC URL Syntax by Type Server—jdbc:mysql://<hostname>[,<failoverhost>][:<port>] /<dbname>[?<URL attribute>=<value>[&<URL attribute>=<value>] ...]	Default Port 3306
	JDBC Class com.mysql.jdbc.Driver (official class name) org.gjt.mm.mysql.Driver (older class name)	JDBC JAR File Name mysql-connector-java-5.x.xx- bin.jar

Neoview

Vendor Name	Details
Recommended Native Driver	
HP	<div>Company URL</div> <div>http://www.hp.com</div>
	<div>Driver URL</div> <div>https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=NEO10</div>

Vendor Name	Details	
	JDBC URL Syntax by Type Server—jdbc:hpt4jdbc://<system>[:<port>][<URL attribute>=<value>[:<URL attribute>=<value>...]]	Default Port 18650
	JDBC Class com.hp.t4jdbc.HPT4Driver	JDBC JAR File Name N/A

Netezza

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

OpenBase SQL

Vendor Name	Details
Recommended Native Driver	

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

Oracle

Vendor Name	Details	
Recommended Native Driver		
Oracle	Company URL http://www.oracle.com	
	Driver URL http://www.oracle.com/technetwork/database/features/jdbc/index.html	
	JDBC URL Syntax by Type Thin Server—jdbc:oracle:thin:@<server>[:<port>]:<sid> OCI Server —jdbc:oracle:oci:@<server>[:<port>]:<sid>	Default Port 1521
	JDBC Class	JDBC JAR File Name

Vendor Name	Details	
	oracle.jdbc.driver.OracleDriver oracle.jdbc.OracleDriver	ojdbcx.jar, ora18n.jar
	Comments The OCI server requires OCI libraries	

Pervasive

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

PostgreSQL

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

SAP DB

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

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

SAP HANA

Vendor Name	Details	
Recommended Native Driver		
SAP HANA	Company URL http://hana.sap.com	
	Driver URL For SAP customers, the driver is part of your client tools. Contact your SAP representative for more information.	
	JDBC URL Syntax by Type server -- jdbc:sap://<server>:<port>/?autocommit=false	Default Port 30015
	JDBC Class com.sap.db.jdbc.Driver	JDBC JAR File Name ngdbc.jar
	Shipped with Pentaho Products N/A	

Vendor Name	Details
	<p>Comments</p> <p>Note that the default port number is '30015' where '00' is the instance of the machine you are connecting to. For example, you can connect to the same machine using '30015', '30115', or '31015'.</p>

SQLite

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

SQL Server

Vendor Name	Details
Recommended Native Driver	
Microsoft	<p>Company URL</p>

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

Sybase ASE

Vendor Name	Details	
Recommended Native Driver		
SAP	Company URL http://www.sybase.com	
	Driver URL http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect	
	JDBC URL Syntax by Type Server—jdbc:sybase:Tds:<server>[:<port>]/<databaseName>	Default Port 5000
	JDBC Class com.sybase.jdbc4.jdbc.SybDriver	JDBC JAR File Name N/A

Vendor Name	Details
	<p>Comments</p> <p>The open source jTDS driver works with Sybase as well. Note that although you can use jTDS open source JDBC driver, we recommend that you use the Sybase-supplied JDBC driver instead. Connections might not work reliably if you use the jTDS JDBC driver.</p>

Sybase SQL Anywhere

Vendor Name	Details	
Recommended Native Driver		
SAP	Company URL http://www.sybase.com	
	Driver URL http://www.sybase.com/products/allproductsa-z/softwaredeveloperkit/jconnect	
	JDBC URL Syntax by Type Server—jdbc:sybase:Tds:<server>[:<port>]/<databaseName>	Default Port 2638
	JDBC Class com.sybase.jdbc4.jdbc.SybDriver	JDBC JAR File Name N/A
	Comments This open source jTDS driver works with Sybase as well. Note that although you can use jTDS open source JDBC driver, we recommend that you use the Sybase-supplied JDBC driver instead. Connections might not work reliably if you use the jTDS JDBC driver.	

SmallSQL

Vendor Name	Details	
Recommended Native Driver		
SmallSQL	Company URL http://www.smallsql.de/	
	Driver URL http://www.smallsql.de/download.html	
	JDBC URL Syntax by Type Embedded—jdbc:smallsql:databaseName[?URL attribute=value[URLattribute=value]...]	Default Port N/A
	JDBC Class smallsql.database.SSDriver	JDBC JAR File Name smallsql.jar
	Comments Java desktop SQL database engine	

Vendor Name	Details

Teradata

Vendor Name	Details	
Please see the Teradata JDBC Driver Reference for information about required drivers.		
Teradata	Company URL http://www.teradata.com	
	Driver URL http://downloads.teradata.com/download/connectivity/jdbc-driver	
	JDBC URL Syntax by Type Server—jdbc:teradata://<dbshost>[<URL attribute>[;<URL attribute>]...]	Default Port 1024
	JDBC Class com.teradata.jdbc.TeraDriver	JDBC JAR File Name terajdbc4.jar tdgssconfig.jar

Vertica

Vendor Name	Details
Recommended Native Driver	
HP	Company URL http://www.vertica.com
	Driver URL http://www.vertica.com/support/myvertica/

Vendor Name	Details	
	JDBC URL Syntax by Type Server—jdbc:vertica://<server>[:<port>]<databaseName>	Default Port 5433
	JDBC Class com.vertica.Driver	JDBC JAR File Name N/A

Install Drivers with the JDBC Distribution Tool

To connect to a database, including the BA Repository or DI Repository database, you will need to download and install a JDBC driver to the appropriate places for Pentaho components as well as on the the web application server that contains the Pentaho Server(s). Fortunately, the JDBC Distribution Tool makes this process easy.

NOTE:

Due to licensing restrictions, Pentaho cannot redistribute some third-party database drivers. This is why you have to download the file yourself and install it yourself.

1. Download a [JDBC driver](#) JAR from your database vendor or a third-party driver developer.
2. Copy the JDBC driver JAR you just downloaded to the `pentaho/jdbc-distribution` directory.
3. Open a cmd prompt or shell tool, navigate to the `pentaho/jdbc-distribution` directory and enter one of the following:

Windows:

```
distribute-files.bat <name of JDBC driver JAR>
```

Linux:

```
./ distribute-drivers.sh
```

1. If you have run this utility as part of the installation process, you are done. Go to the next step of the installation instructions.
2. If you have run this utility so that you can connect to a new repository, restart the BA or DI Server and Design tools, then try to connect to the new repository. If you cannot connect, verify that the drivers are installed as shown in this table. Restart your Pentaho Server(s) and Client tools.

List of Products and Corresponding Locations for JDBC Drivers

Server or Design Tool	Directory
Business Analytics (BA) Server	pentaho/server/biserver-ee/tomcat/lib
Data Integration (DI) Server	pentaho/server/data-integration-server/tomcat/lib
Pentaho Data Integration (Spoon)	pentaho/design-tools/data-integration/lib
Pentaho Report Designer (PRD)	pentaho/design-tools/report-designer/lib/jdbc
Pentaho Aggregation Designer (PAD)	pentaho/design-tools/aggregation-designer/drivers

Server or Design Tool	Directory
Pentaho Schema Workbench (PSW)	pentaho/design-tools/schema-workbench/drivers
Pentaho Metadata Editor (PME)	pentaho/design-tools/metadata-editor/libext/JDBC