

# KNIME Database Extension (Legacy) Guide

KNIME AG, Zurich, Switzerland Version 4.3 (last updated on 2019-06-28)

## **Table of Contents**

Introduction	. 1
Connecting to a database	. 2
Vendor-specific JDBC drivers	. 3
Working with databases	. 4

#### Introduction



This documentation describes the legacy database framework e.g. all database nodes that end with (legacy). For information on how to migrate from the legacy framework to the new framework see the Migration section in the new database documentation.

The KNIME Database Extension provides a set of KNIME nodes that allow connecting to almost all JDBC-compliant databases. These nodes reside in the *Database* category in the Node Repository, where you can find a number of database access, manipulation and writing nodes.

The database nodes are part of every KNIME Analytics Platform installation. It is not necessary to install any additional KNIME Extensions.

#### Connecting to a database

The Database → Connector subcategory in the Node Repository contains

- a set of database-specific connector nodes for commonly used databases such as MySQL,
- as well as the generic Database Connector node.

1

The database-specific connector nodes already contain the necessary JDBC drivers and provide a configuration dialog that is tailored to the specific database. It is recommended to use these nodes over the generic *Database Connector* node, if possible.

🛆 Dial	log - 2:1 - Database Connector 💻 🗖 🗙			
File				
Connection settings A	dvanced Flow Variables Memory Policy			
Connection				
Database driver con	n.mysql.jdbc.Driver 🗸			
Database URL jdb	c:mysql:// <host>:<port>/<database_name></database_name></port></host>			
Authentication O Use credentials				
	×			
Ouse username & p	assword			
Username	user			
Password	•••••			
Timezone correction         O No correction (use UTC)         Image: Use local timezone         Use selected timezone         UTC				
Misc  Allow spaces in column names  Validate connection on close  Retrieve metadata in configure				
OK Apply Cancel 🕜				

The generic *Database Connector* node can connect to arbitrary JDBC compliant databases. The most important node settings are described below

Database Driver: The dropdown box shows all available database drivers. You need to select an appropriate driver for your specific database. If there is no matching JDBC driver it first needs to be registered, see Vendor-specific JDBC drivers

*Database URL*: A driver-specific JDBC URL is required. Please consult the vendor documentation for the JDBC driver you are using.

Authentication: Login credentials can either be provided via credentials flow variables, or directly in the configuration dialog.

For the remaining settings please consult the *Database Connector* node description.

### Vendor-specific JDBC drivers

For some databases KNIME Analytics Platform does not contain a ready-to-use JDBC driver. In these cases, it is necessary to first register a vendor-specific JDBC 4.1 driver in KNIME Analytics Platform. Please consult your database vendor to obtain the JDBC driver.

Δ	Preferences	_ <b>D</b> X	
type filter text         > General         > Help         > Install/Update         & KNIME         Customization Profiles         Data Storage         Data Storage         JavaScript Views         KNIME EQUI         Master Key         Meta Info Preferences         Prefered Renderers         > Workflow Coach         > Team	Preferences Databases Let's you load additional database driver from Jar or J other database related preferences. List of loaded database driver files and directories: Timeout for database operations (in seconds)	Add file  Add directory  Remove Up Down  7200	
Apply and Close Cancel			

To register your vendor-specific JDBC driver, go to *File*  $\rightarrow$  *Preferences*  $\rightarrow$  *KNIME*  $\rightarrow$  *Database Driver*.

Add file: Click here, if the driver is provided as a single .jar file.

Add directory: Click here, if the driver is provided as a folder that contains several .jar files. Some vendors offer a .zip file for download, which needs to be unpacked to a folder first.

#### Working with databases

▲ Manipulation
 Database Apply-Binner
 Database Auto-Binner
 Database Column Rename
 Database Numeric-Binner
 Database Numeric-Binner
 Database Row Filter
 Database Query
 Database Column Filter
 Database Sorter
 Database GroupBy
 Database Table Creator
 Database Sampling

1

Once you have successfully connected to your database, there is a set of nodes that provide **in-database** data manipulation, such as row filtering, joining etc.

Additionally, there are nodes to read, write or delete data from a database, or to to run custom SQL statements, such as the **Database SQL Executor** node.

Please consult the example workflows, which are available in KNIME Analytics Platform in the KNIME Explorer View, when connecting to the **EXAMPLES** server. Under  $01_Data_Access \rightarrow 02_Databases$  you will find a variety of example workflows that demonstrate how to use the database nodes.





KNIME AG Talacker 50 8001 Zurich, Switzerland www.knime.com info@knime.com

The KNIME® trademark and logo and OPEN FOR INNOVATION® trademark are used by KNIME AG under license from KNIME GmbH, and are registered in the United States. KNIME® is also registered in Germany.