

Installing and Configuring Database Access for DB2

There are two options to configure the DB2 client:

- via the [connection string](#), which corresponds to the setting **DBName** in the BRIDGE ...
- ... or on each client [using the catalog database commands](#) .

Configuring the DB2 Client via the Connection String

Install the DB2 drivers on your client system (IBM Data Server Driver for ODBC and CLI (CLI Driver). In the **xUML Services Preferences** of the Bridge, select the DB2 adapter preferences and enter the path to the database driver into **DB2DIR**.

The screenshot shows the 'xUML Services' window with the 'Preferences' tab selected. Under the 'DB2 Adapter' section, there are two input fields: 'DB2DIR' and 'DB2INSTANCE'. The 'DB2DIR' field contains the path '/opt/db2/odbc_cli/cldriver/lib/libdb2.so'. The 'DB2INSTANCE' field is empty. A 'View' button is next to the 'DB2DIR' field. An 'Apply' button is at the bottom right.

The value of **DB2INSTANCE** is not used in this case.

Specify the DB2 server in the **xUML Service Settings** of the SQL adapter connection of the xUML service. All possible parameters are documented on the [IBM documentation pages](#). For more information on xUML service settings refer to [xUML Service Settings](#).

The screenshot shows the 'DBTestSuiteDB2' window with the 'Settings' tab selected. It displays a table of configuration parameters for the DB2 connection. The parameters include DB2: Connection Pooling, DB2: DB Name, DB2: DB Type, DB2: Max Connection Age, DB2: Max Connection Idle Time, DB2: Max Connection Reuse, and DB2: Unicode Mode. The 'Current Value' and 'Original Value in Model' columns are shown. The 'DB2: DB Name' field is highlighted with a blue border.

Alternatively, you can also specify the DB2 server in the **<<SQLAlias>>** in the component diagram of the xUML service. For more information on the SQL database deployment refer to section [Using ODBC for Database Access](#) in the BRIDGE Reference Guide.

Configuring DB2 Access via the SQL Client

For DB2, install the required DB2 client tools and define all necessary configuration parameter as described in the DB2 installation guide.

The DB2® Information Center provides access to all information that is needed to use the DB2 Information Management family of products and features for Linux, UNIX, and Windows operating systems (see [IBM documentation pages](#)).

1. Download the Actual Run-Time Client

Download the actual Run-Time Client Installer from the DB2 web site and install it. This documentation is based on version 8.

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Related Pages:

- [Defining the ODBC Database Parameters](#)
- [Troubleshooting Database Access](#)
- [Checking the Installation](#)

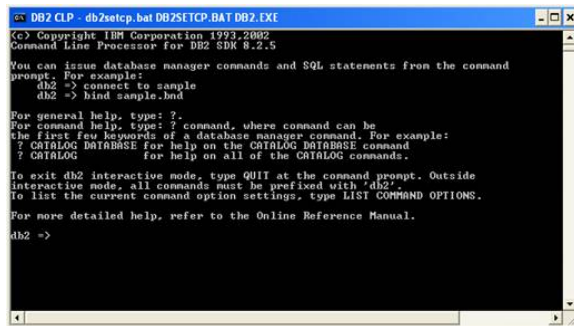
Related Documentation:

- [xUML Service Settings](#)
- [IBM documentation pages](#)

2. Open the Administration Shell

Open the DB2 administration shell, for example on Windows:

C:\Program Files\IBM\SQLLIB\BIN\DB2CMD.exe DB2SETCP.BATDB2.EXE



```
DB2 CIP - db2setcp.bat DB2SETCP.BAT DB2.EXE
(c) Copyright IBM Corporation 1993,2002
Command Line Processor for DB2 SDK 8.2.5

You can issue database manager commands and SQL statements from the command
prompt. For example:
  db2 -> connect to sample
  db2 -> bind sample.bnd

For general help, type: ?.
For command help, type: ? command, where command can be
the first few keywords of a database manager command. For example:
  ? CATALOG DATABASE for help on the CATALOG DATABASE command
  ? CATALOG          for help on all of the CATALOG commands.

To exit db2 interactive mode, type QUIT at the command prompt. Outside
interactive mode, all commands must be prefixed with 'db2'.
To list the current command option settings, type LIST COMMAND OPTIONS.
For more detailed help, refer to the Online Reference Manual.

db2 ->
```

3. Add a TCP/IP Node Entry to the Node Directory

Add a Transmission Control Protocol/Internet Protocol (TCP/IP) node entry to the node directory. The TCP/IP communications protocol is used to access the remote node. The CATALOG TCPIP NODE command is run on a client.

Example: **db2 => catalog tcpip node DBSERVER remote dbserver1.e2e.ch server 50000**

The DB2 node name DBSERVER holds the TCPIP entries for the system database directory.

DB2 Commands

Command	Description	Example
catalog tcpip node	Adds a Transmission Control Protocol/Internet Protocol (TCP/IP) node entry to the node directory.	db2 => catalog tcpip node DBSERVER remote dbserver1.e2e.ch server 50000
list node directory	Lists the contents of the system database directory. If a path is specified, the contents of the local database directory are listed.	db2 => list node directory Node Directory Number of entries in the directory = 1 Node 1 entry: Node name = DBSERVER Comment = Directory entry type = LOCAL Protocol = TCPIP Hostname = dbserver1.e2e.ch Service name = 50000
uncatalog node	Deletes an entry from the node directory.	db2 => uncatalog node DBSERVER

4. Store the Database Location Information in the System Database Directory

Stores database location information in the system database directory using the CATALOG DATABASE command. The database can be located either on the local workstation or on a remote node.

Example: **db2 => catalog database SAMPLE as SAMPLE at node DBSERVER**

DB2 Commands

Command	Description	Example
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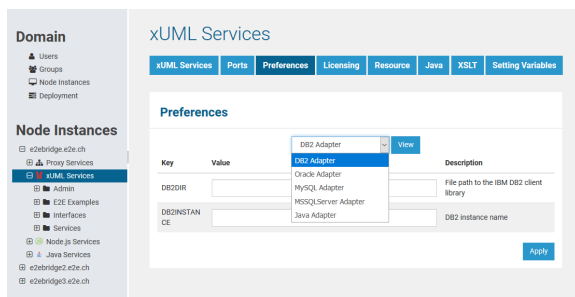
list database directory	Lists the contents of the system database directory. If a path is specified, the contents of the local database directory are listed.	db2 => list database directory System Database Directory Number of entries in the directory = 2 Database 1 entry: Database alias = SAMPLE Database name = SAMPLE Node name = DBSERVER Database release level = a.00 Comment = Directory entry type = Remote Catalog database partition number = -1 Alternate server hostname = Alternate server port number = Database 2 entry: Database alias = E2E Database name = E2E Node name = DBSERVER Database release level = a.00 Comment = Directory entry type = Remote Catalog database partition number = -1 Alternate server hostname = Alternate server port number =
uncatalog database	Deletes a database entry from the system database directory.	db2 => uncatalog database tsp DB20000I The UNCATALOG DATABASE command completed successfully. DB21056W Directory changes may not be effective until the directory cache is refreshed.

Defining the DB2 Database Preferences on the BRIDGE

In a browser, open the Web-based user interface of the system, on which the Bridge is installed (see [Checking the Installation](#)). Enter a user id and password of a user with administration rights (the pre-defined user **admin**, for instance).

The welcome page is displayed.

In the Navigation, select the **xUML Services** item of the node instance you want to define the database preferences for and switch to tab **Preferences**.



Now, you can define the SQL adapter preferences for each database type. Select the **DB2**, **Oracle**, **MySQL**, or **MSSQLServer** Adapter in the drop down box and the parameters of the selected adapter are displayed.

Select the **DB2 adapter**, enter the following parameters and click **Apply**.

Key	Value	Example
DB2DIR	Full path to the DB2 SQL Library (installed with the DB2 client tool).	<code>/opt/db2/odbc_cli/clidriver/lib/libdb2.so</code>
DB2INSTANCE	Name of the SQL service component that has to be used in the deployment diagram when defining a DB2 database backend, e.g. DB2. The DB2INSTANCE environment variable can be retrieved with the DB2 administration command shell (see sections before). Use the <code>get instance</code> command, which returns the value of environment variable.	<pre>db2 => get instance The current database manager instance is: DB2</pre>