# **SQL** Adapter

PAS 23.1.1 The Designer supports relational databases via an SQL adapter. SQL support is native and you do not need to install any client tools or drivers for the supported databases.

Using the SQL adapter, you can

Task	Adapter Action	Description	Documentation Reference	
Execute SQL statements	execute	Execute an SQL statement.	<ul> <li>Querying SQL Databases</li> </ul>	
Transaction handling	execute sql = commit or rollback	Commit or rollback an SQL transaction.	<ul> <li>SQL Transaction Handling</li> </ul>	
Bulk fetch data	getHandle	Get a connection handle for subsequent <b>fetchNext</b> actio ns.	<ul> <li>Handling Big Data Sets</li> </ul>	
	fetchNext	Fetch next record.		
	closeHandle	Close the connection handle. If all records have been fetched, the handle is closed automatically.		

To use the SQL adapter it is helpful if you are familiar with the concepts of SQL.

The Designer also supports MongoDB as a document-oriented database with a dedicated adapter. See MongoDB Adapter for more details.

### Supported Databases

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The xUML Runtime uses a generic SQL Database Management System (DBMS) adapter that works with the following DBMSs:

Database	Database Connection String	Example
DB2	Any valid DB2 connection string, which is either catalog database alias or the database name. The catalog database stores database location information in the system database directory.	
DBTypeVar iable	For further information refer to SQL Adapter Reference.	
Informix	This database has to be configured first. To use it, please contact our Scheer PAS support team.	
InterBase	(i) This database has to be configured first. To use it, please contact our Scheer PAS support team.	

On this Page: Supported Databases Adding an SQL Adapter • Operation to a Diagram Configuring the SQL Adapter Operation SQLAdapter\_CustomerData\_Exa mple Click the icon to download a simple example model that shows the usage of the

SQL adapter in Sc heer PAS Designer

### **Related Pages:**

- Querying SQL Databases
- ٠ Handling Big Data Sets
- SQL Transaction Handling • • Troubleshooting the SQL
- Adapter SQL Adapter Reference •
- Aliases

#### **Related Documentation:**

MongoDB Adapter

MariaDB PAS 24.0	One of the following formats:	mariadb. local@acme_db
	[ <server_name>@][<database_name>]</database_name></server_name>	
	<ul> <li>"" or "@"         Empty string or '@' character, connects to a local server.</li> <li><database_name> or @<database_name>         Connects to a database with the specified name on local server.</database_name></database_name></li> <li><server_name>@         Connects to the specified server. It can have the following formats:</server_name></li></ul>	
MYSQL	One of the following formats:	mysql. local@acme_db
	[ <server_name>@][<database_name>]</database_name></server_name>	
	<ul> <li>"" or "@" Empty string or '@' character, connects to a local server.</li> <li><database_name> or @<database_name> Connects to a database with the specified name on local server.</database_name></database_name></li> <li><server_name>@ Connects to the specified server. It can have the following formats:         <ul> <li>host name[,port]</li> <li>path name of the Unix socket that is used to connect to the server</li> </ul> </server_name></li> <li><server_name>@<database_name> Connects to a database with the specified name on the specified server.</database_name></server_name></li> </ul>	
ODBC PAS 24.0	Any valid ODBC connection string.	
Oracle	Any valid Oracle connection string, e.g. a database alias name as specified in TNSNAMES.ORA file or at <hostname>[:<port>][ /<service_name>] .</service_name></port></hostname>	
PostgreSQL	One of the following formats:	postgresql. local@acme_db;
PAS 24.0	[ <server_name>@][<database_name>][;<options>]</options></database_name></server_name>	connect_timeou t=10
	<ul> <li>"" or "@" Empty string or '@' character: Connects to a local server.</li> <li><database_name> or @<database_name> Connects to a database with the specified name on local server.</database_name></database_name></li> <li><server_name>@ Connects to the specified server. It can have the following formats:         <ul> <li>host name[,port]</li> <li>path name of the Unix socket that is used to connect to the server</li> </ul> </server_name></li> <li><server_name>@<database_name> Connects to a database_name&gt; Connects to a database with the specified name on the server</database_name></server_name></li> <li><server_name>@<database_name> Connects to a database with the specified name on the specified server.</database_name></server_name></li> <li><options> string used for PQsetdbLogin function pgoptions parameter (these are the server process parameters).</options></li> </ul>	

SQLBase	This database has to be configured first. To use it, please contact our <b>Scheer PAS</b> support team.	
SQLite	A string containing a valid SQLite database file path.	
SQLServer	One of the following formats:	sqlserver.
	[ <server_name>@][<database_name>]</database_name></server_name>	local@acine_ub
	<ul> <li>"" or "@"         Empty string or '@' character: Connects to a default database         on a local server.</li> <li><database_name> or @ <database_name>         Connects to a database with the specified name on your local         server.</database_name></database_name></li> <li><server_name>@         Connects to a default database on the specified server.</server_name></li> <li><server_name>@</server_name></li> <li>Connects to a database with the specified name on the         specified server.</li> <li><server_name>@</server_name></li> <li>Connects to a database with the specified name on the         specified server.</li> <li>Connects to a database with the specified name on the         specified server.</li> <li>To connect to a named instance of SQL Server 2000 use <server _name\instance_name=""> instead of <server_name>: <serve r_name\instance_name="">@</serve></server_name></server></li> </ul>	
Sybase	This database has to be configured first. To use it, please contact our Scheer PAS support team.	
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In ord only u the SC comm and ca	base Interchangeability er to have the option to switch between DBMSs smoothly, it is strongly ise ANSI SQL in database queries. If using proper ANSI SQL, all databa QL adapter are able to communicate with your service. However, if you hands (like Oracle SQL dialects) into your queries, you are bound to the annot switch freely.	recommended to ases served by introduce special Oracle DBMS

## Adding an SQL Adapter Operation to a Diagram





### Configuring the SQL Adapter Operation

Once an operation has been added to a diagram, it needs to be configured as an SQL adapter.

× ^	Se op De the ex	Select the newly added SQL adapter operation and switch to the <b>Attributes</b> pan Depending on the diagram type you can se the following information (example BPMN execution diagram):		
		Attribute	Description	Allowe Values Examp
		Name	The name of the SQL adapter operation.	getHand
	T T	Symbol Гуре	Operations added to an execution diagram are execution steps.	Executic Step
	× ^	× op D th ex	X Select the new operation and Depending or the following i execution diar Attribute Name Symbol Type	X       Select the newly added SQL a operation and switch to the Att Depending on the diagram type the following information (exame execution diagram):         Attribute       Description         Name       The name of the SQL adapter operation.         Symbol       Operations added to an execution diagram are execution diagram are execution diagram are execution

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![](_page_6_Figure_0.jpeg)

![](_page_7_Figure_0.jpeg)