

Database and SQL

SQL to the Core

Built-in Embedded SQL

Every **FactoryStudio** system includes a full-featured embedded SQL engine. This provides several advantages:

- A safe and secure location for your entire project configuration.
- It can be used as the historian database to log tags, alarms, and events on small to medium systems (up to 10GB of data).
- On large systems, it can be used as a local Store and Forward location, when the remote database is not available.
- It provides an ideal system to store local runtime settings, retentive information, local recipes, schedules, tables, and queries when preparing reports.

Multiple Database Connections

FactoryStudio provides seamless integration with any third-party database, including **Microsoft SQL Server, Oracle, MySQL, Informix, SQL Lite, PostgreSQL,** and others.

Advanced DataGrid

FactoryStudio provides a fully-featured DataGrid object that present tables and queries from databases, as well as shows the contents of any tag, assets, or real-time objects. Drop the table, query, or tag in the Grid Data Source to create front-end visualization, edit any real-time object, or edit any database.

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Real-time Queries and Tables

Any data source with ODBC, OLE-DB, or ADO. NET support can be connected with the application. An easy syntax allows you to create or customize any query or table search with real-time tags.

Client-Server Architecture

Real-time queries can be processed either from the server or from the client computer, asynchronously or synchronously. To achieve a better performance, multiple requests from distributed clients are cached and synchronized in the server.

Data Gateway

Connecting client queries through Firewall protected security zones, such as moving data between the Automation Network and the IT network, is no longer an issue. **FactoryStudio** provides a built-in firewall friendly data gateway. Data queries from clients are routed in a secure way through any **FactoryStudio** system.



The Convergence of SQL database, HMI software and .NET

Scheduling and processing recipes and real-time data consolidation is made easy.

See "[SQL Queries](#)" for more information.