SQL Bridge Module

High-Powered Data Acquisition

Share Plant Floor Data with Any Database

The Ignition SQL Bridge Module brings the power of structured query language (SQL) databases to your industrial process. The module allows you to leverage Ignition's unlimited Tags and database connections at an astonishingly low price — even if you don't know much about SQL databases.

Think of the SQL Bridge Module as a "Swiss Army Knife" for integrating programmable logic controllers (PLCs) and SQL databases in unlimited ways. Move data bidirectionally, log huge amounts of data easily, synchronize PLCs with databases, create powerful recipe and batching systems, sequence entire processes, and more – your imagination is the limit.

Move Data Bidirectionally

The module uses transaction groups that function as a bidirectional data bridge between an OPC server and a SQL database. Transaction groups can perform many data-centric tasks, such as event logging, vertical and horizontal data storage, inserting rows into a table, storing data to a specific row, and more.

Log Data Easily

The easiest, most powerful data logger on the market includes triggers, handshakes, expressions, and other items that help you store data in the exact way you need. Triggers offer endless data-storage possibilities: storing production summaries, logging the sequence of event information, tracking downtime events, and more. Simply map your process data to any table structure and let the module do the work of creating and managing new tables or writing to existing tables.

Synchronize PLCs with Databases

Extend your PLC address space into your SQL database with bidirectional mirroring, which immediately reflects any value change in the PLC or database end in the opposite end. Bidirectional mirroring enables real-time control via common web technologies and other database-compatible front-ends. Set the update rate for rows/fields (down to sub-second rates), and create two-dimensional arrays by adding rows. The SQL Bridge Module is the first and only software in the industry to offer this functionality.

Build Recipe & Batching Systems

By extending your process into the database, the full bidirectional access of the SQL Bridge Module enables you to create a robust, customized recipe and batching system. Use the database to store a virtually unlimited number of recipes, and modify recipes however and wherever you want, while tracking all changes historically. Set up reliable database-to-PLC transactions using triggers and handshakes. Leverage stored procedures to perform complex tasks or replace aging transaction systems.

Sequence Your Processes

Flexible triggers and database tables enable you to easily sequence entire processes. Use dynamic references to step the index to a row of values that are then written to the PLC. Create complex triggers, which reference multiple process variables and expressions, by using a simple expression language. Use rows/fields as timers and counters by leveraging the unique built-in hour meter and event meter functionalities.

Flexible and Easy to Use

Across the board, SQL Bridge is the clear winner for tying industrial systems into SQL databases. Online editing lets you make changes on the fly, without stopping your process or affecting other parts of Ignition. You can stop locking data away in proprietary boxes because all data is open and accessible in the database. Use flexible data modeling without a lot of work: the module automatically creates tables, columns, and more, in any format. The built-in table browser allows you to work entirely within the Ignition Designer, so there is no need for external programs.

Powered by Ignition

The SQL Bridge Module is a SCADA module for Ignition, the powerful HMI, SCADA, MES and MQTT software from Inductive Automation. It integrates seamlessly with Ignition and all other modules in the Ignition SCADA suite. Because the module is built on the power of Ignition, it shares the same advantages, such as cross-platform compatibility, unlimited free clients, robust out-of-the-box SQL database support, and fast installation. Leveraging the full power of Ignition, it is a data management tool unlike any other in the SCADA software market.

Looking for No-Frills Data Logging?

SQL Bridge Limited provides an affordable way to create Historical Groups, and record history into any SQL database. Speak to our Sales department for more details.

Want to Learn More?

For more information on the SQL Bridge Module, please see the SQL Bridge (Transaction Groups) section of the user manual.