



PRODUCT PROFILE

FactoryTalk® Transaction Manager

OVERVIEW

FactoryTalk® Transaction Manager is a valuable tool designed to help you better manage your manufacturing processes by integrating the critical data in your shop-floor control systems with enterprise IT and other manufacturing applications. Transaction Manager provides you with the ideal platform on which to integrate and build the solutions you need to run your enterprise.

To understand the power of FactoryTalk Transaction Manager, it helps to see the power of an industrial transaction. In the enterprise world, transactions are used every day to link multiple systems tightly so they act as one. An industrial transaction does the same thing by linking your plant control systems to enterprise systems. A true end-to-end link is established that provides the level of reliability required to support enterprise-wide integration.

Whether your solution requires a simple data-logging scenario or a bi-directional system in which your plant floor is controlled by the rules, schedules and/or the data in your enterprise databases, the flexibility of the Transaction Manager architecture can meet your needs.

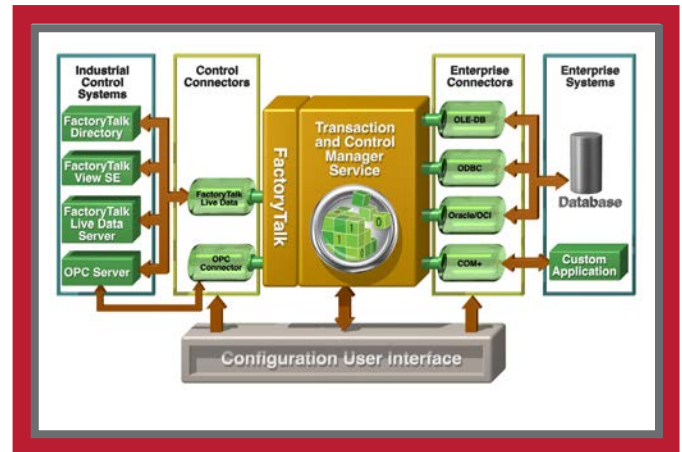
Transaction Manager enables you to:

- Get the data you require...automatically and with ease
- Size the flexible, scalable architecture to meet your needs
- Keep your work-in-process and finished-goods inventory accurate
- Track material consumption
- Minimize production errors and enforce business rules with stored procedures
- Get the shop-floor data you need to optimize and improve your manufacturing effectiveness

FEATURES

DATA INTEGRITY

A fundamental requirement for any mission-critical transaction system is to guarantee data integrity in the event of system failure. FactoryTalk Transaction Manager has many safeguards in place to help protect and ensure system and data integrity. In addition, all of the services have the ability to send email notification of failures, including lost connections and failed transactions.



Transaction Manager Components

SERVICE RECONNECTION

In a distributed system, any FactoryTalk Transaction Manager service that loses connection with the rest of the system will continually try to re-establish connections until successful.

TRANSACTION CACHING

FactoryTalk Transaction Manager has the capability to cache transactions before they get to the enterprise system. This provides for fault tolerance of the enterprise system. If the enterprise system is down, Transaction Manager will retry to send the transactions, keeping the transactions in the cache until the enterprise system is available. This cache allows simple store and forward capabilities since the cache size and frequency of when it is loaded can be configurable. The cache also allows Transaction Manager to use the powerful database engines that are common in today's market. Databases that are optimized to accept many transactions as one large block can be sent an entire Transaction Manager cache file in one action.

BI-DIRECTIONAL

FactoryTalk Transaction Manager supports bi-directional transactions in one of two ways. For simple transactions, an option is provided to return a result to the control system indicating that the data has been successfully committed to the database. This result can then be inspected by the control system

to confirm that transactions made it to the database. Not only can Transaction Manager take “return codes,” but it can extract data out of an enterprise system and send it back to the control system. When a transaction is connected to something like a database stored procedure, Transaction Manager can take the outputs of that stored procedure and send them back to the controller. When the stored procedure finishes, the return values are written to the control data points.

ONLINE CHANGES

Do you ever need to modify what data you told FactoryTalk Transaction Manager you wanted when the system was configured? Well, with FactoryTalk Transaction Manager, you can change nearly anything about a control connector configuration — even while it’s running. This allows data collection to continue in your application while you add new or modify existing transactions.

ENTERPRISE CONNECTIVITY

FactoryTalk Transaction Manager has options to connect to various enterprise systems, including enterprise connectors for ODBC-compliant databases (virtually any relational database has an ODBC driver) and native drivers for Microsoft® SQL Server and Oracle® database. Additionally, FactoryTalk Transaction Manager can connect to COM+ applications on your Windows® server. Almost any Visual Basic or C/C++ application can be connected to FactoryTalk Transaction Manager via COM+.

CONTROL SYSTEM CONNECTIVITY

To connect to plant-floor systems, FactoryTalk Transaction Manager has added the ability to connect to FactoryTalk® production and performance suite components that dramatically simplify data production, movement, and use. With this FactoryTalk connection in Transaction Manager, you can use one interface to connect to third-party OPC, Rockwell Automation OPC servers, or our newest FactoryTalk® Live Data servers such as FactoryTalk® View Site Edition or RSLinx® Enterprise. FactoryTalk Transaction Manager can connect to redundant servers in a FactoryTalk environment without any additional code. FactoryTalk ensures the data server’s redundancy without affecting the clients, like FactoryTalk Transaction Manager.

EASY TO USE

Configuration Checklist

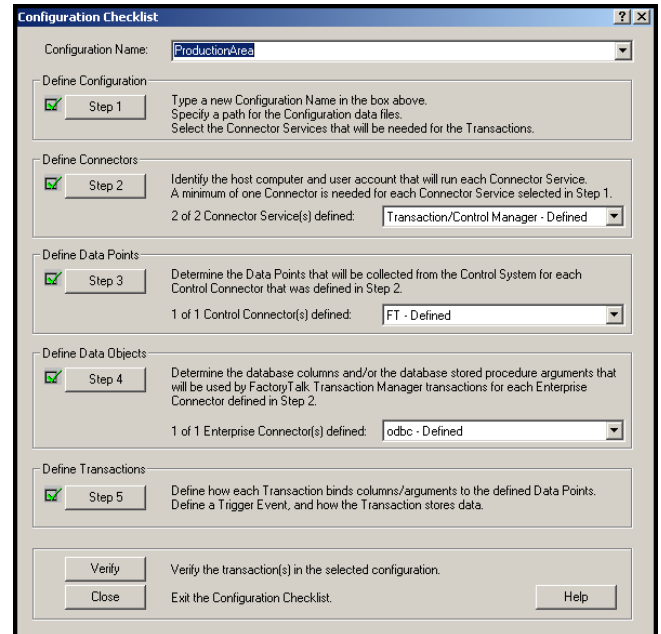
This wizard helps you navigate through the process of creating a FactoryTalk Transaction Manager configuration. The five-step checklist links directly to the screens needed to accomplish each step, and it guides you through creating a complete configuration and keeps track of which steps you’ve completed.

Configuration Import/Export Tools

An XML Import/Export utility is provided with FactoryTalk Transaction Manager to allow experienced users to configure transactions off-line in Microsoft® Excel or similar programs and import the configuration into FactoryTalk Transaction Manager. This time-saving tool is particularly useful for large transaction configurations or if you want to start with an existing configuration and make changes to it.

Run Screens Anywhere

The FactoryTalk Transaction Manager user interface provides a single access point for the Transaction Manager system, even when it is deployed across a network or even over a WAN. The user interface gives you the ability to configure transactions, start and stop the system, and troubleshoot. You can also manage Transaction Manager from the Service Console, either locally or on a remote computer.



FactoryTalk Transaction Manager Configuration Checklist

Watch the Activity

The online transaction monitor provides a real-time look at the status of all active transactions and the state of the Windows services. A traffic signal icon (red, yellow, green) is provided for each Windows service, making it simple for you to check the state of the FactoryTalk Transaction Manager system even when it is distributed over a network.

Diagnose Quickly

An integrated log viewer allows you to troubleshoot problems from a single point using the FactoryTalk Diagnostics log. You can filter events by levels of severity and service, making it easy to drill down to the real issue. In addition, the transaction log can be used for local and remote troubleshooting should database transactions fail. Many companies use this feature to provide worldwide support at multiple facilities from a central location.

Expert System

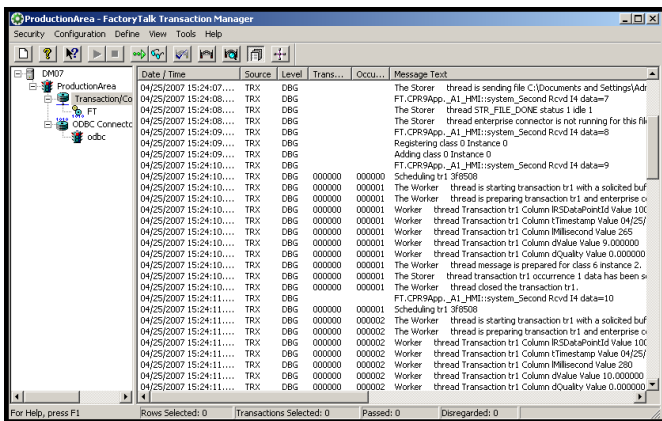
The verification capability makes creating a virtually error-free FactoryTalk Transaction Manager configuration faster and easier by troubleshooting a configuration from end to end. It flags errors, inconsistencies and incompatibilities within transactions.

Cross Reference

The report function in FactoryTalk Transaction Manager generates a summary of an entire Transaction Manager configuration (containing the names of everything Transaction Manager is using), which can be useful for system documentation or finding out what was used where.

Problem Notification

The FactoryTalk Transaction Manager error-logging system can be configured to log events to dedicated log files, the Windows Event Log or an SMTP-compatible email address. Each logging destination can be filtered by level of severity, giving you the ability to track all events but to send email notification only in the event of system failures.



Production Area Transaction Log

Manipulate the Data

FactoryTalk Transaction Manager provides a full complement of arithmetic, bitwise, and logical operators to allow you to filter and manipulate the data as needed prior to handing it to the database environment.

BENEFITS

AUTOMATE DATA LOGGING

FactoryTalk Transaction Manager can move large amounts of data in a fast and robust manner. In addition, Transaction Manager has built-in fault tolerance and the ability to optimize reading and writing of both control and enterprise data. You can use Transaction Manager to automate the following types of processes:

- Monitoring performance of control systems such as machine usage
- Tracking product information such as work in process (WIP) status and raw material availability
- Updating real-time process information such as temperature, pressure and alarm states

GET THE RIGHT DATA TO THE RIGHT PLACE

FactoryTalk Transaction Manager moves data not just from control system to database, but also from a database down to an HMI or control system. This can aid your plant operations to:

- **Control the plant floor using business rules and quality enforcement** — FactoryTalk Transaction Manager provides the interface for a repository of business rules. A business rule can be any logic required to run your plant, such as product specifications or quality parameters. By placing business rules in a database server in a central location, you can manage them more easily within an enterprise system. Additionally, FactoryTalk Transaction Manager can ensure the quality of data to meet the requirements of today's advanced manufacturing companies.
- **Manage recipes** — Keep information about how to make your products in your corporate database where it can be available, yet easily secured. When the need arises, FactoryTalk Transaction Manager allows you to send the data down to your plant-floor systems and devices. FactoryTalk Transaction Manager can help you move your data around reliably no matter whether the need is initial “set point” downloads when a machine is first initialized or a more comprehensive recipe management system.

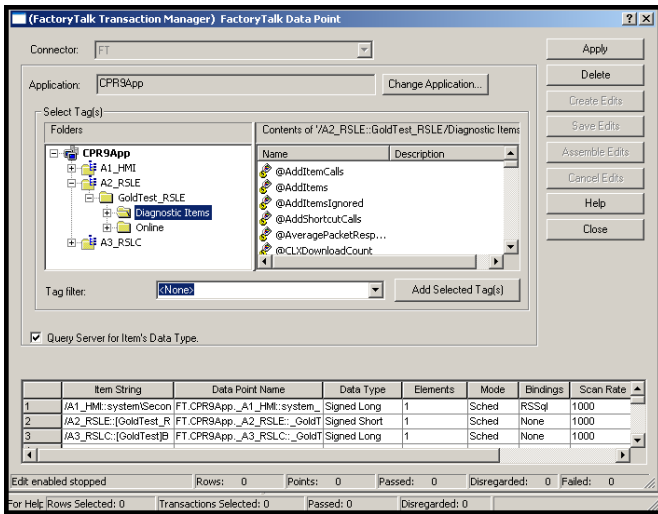
REACT TO EVENTS OR EXCEPTIONS IN THE MANUFACTURING PROCESS

In addition to automatic data logging, FactoryTalk Transaction Manager can react to events or exceptions in the manufacturing process. FactoryTalk Transaction Manager can be configured to trigger transactions based on certain conditions in the control systems. This is useful for gathering data around the exception condition or executing a stored procedure in the Enterprise system to react and tell the control system what to do next.

FACTORYTALK INTEGRATION

What do you gain by having FactoryTalk Transaction Manager incorporate the core components of the FactoryTalk Services Platform?

- Transaction Manager embeds the FactoryTalk Tag browser to provide the same browsing environment as FactoryTalk View Site Edition (SE) or Machine Edition (ME).
- It allows preferred connectivity to FactoryTalk View and RSLinx Enterprise using FactoryTalk Live Data.
- FactoryTalk® Directory provides location transparency to move hardware assets around with ease, swap out OPC servers, move or change RSLinx configurations.
- RSLinx, RSLogix™, FactoryTalk View Site Edition, FactoryTalk Transaction Manager and others use the same tags. They are defined once (in your Logix controller) and then are used everywhere.



Embedded FactoryTalk Browsing

- The FactoryTalk Directory and Live Data allow RSLinx servers to be made redundant; even third-party OPC servers can be made redundant in a FactoryTalk architecture — and your FactoryTalk Transaction Manager system increases uptime potential.

SECURITY

FactoryTalk® Security is a centralized access control that is intended to improve the security of your automation system by limiting access to those with a legitimate need. FactoryTalk Security authenticates user identities and authorizes user requests

to access a FactoryTalk-enabled system. Through FactoryTalk Security, FactoryTalk Transaction Manager is provided with everything necessary to secure configuration and runtime access. These security services are fully integrated into the FactoryTalk Directory and are included as part of the FactoryTalk® Services Platform that installs with many products.

FACTORYTALK SERVICES PLATFORM

The FactoryTalk® Services Platform is the foundation of the FactoryTalk Integrated Production and Performance Suite. It is a flexible solution consisting of activation procedures, a common address book, centralized authentication and access control, and uniform diagnostics that can help reduce costs and extend the life cycle of your existing investments.

GET ANSWERS FAST

When you purchase FactoryTalk Transaction Manager, you receive both industry-leading software and award-winning global support. Use the MySupport feature to personalize our Support Services Web site for your needs. MySupport can send you regular email messages with links to the latest technical notes and software updates. To register, visit <http://support.rockwellautomation.com>.

GET MORE INFORMATION

For ordering information, contact your local Rockwell Automation sales office or Allen-Bradley distributor. Or learn more by visiting <http://www.rockwellsoftware.com>.

FactoryTalk Services Platform

The FactoryTalk® Services Platform delivers value. It is a shared set of common features that enables superior interoperability and commonality between applications for reduced engineering, operations and training costs, while extending the life of existing investments. The FactoryTalk Services Platform provides a solid foundation for today and a path for the future.

	Activation	Directory	Security	Diagnostics	Audit	Live Data	Alarms & Events
FactoryTalk Transaction Manager	✓	✓	✓	✓	✓	✓	

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