

# Proficy HMI/SCADA – SIMPLICITY



GE Fanuc  
Intelligent Platforms



# An integrated view of your operations

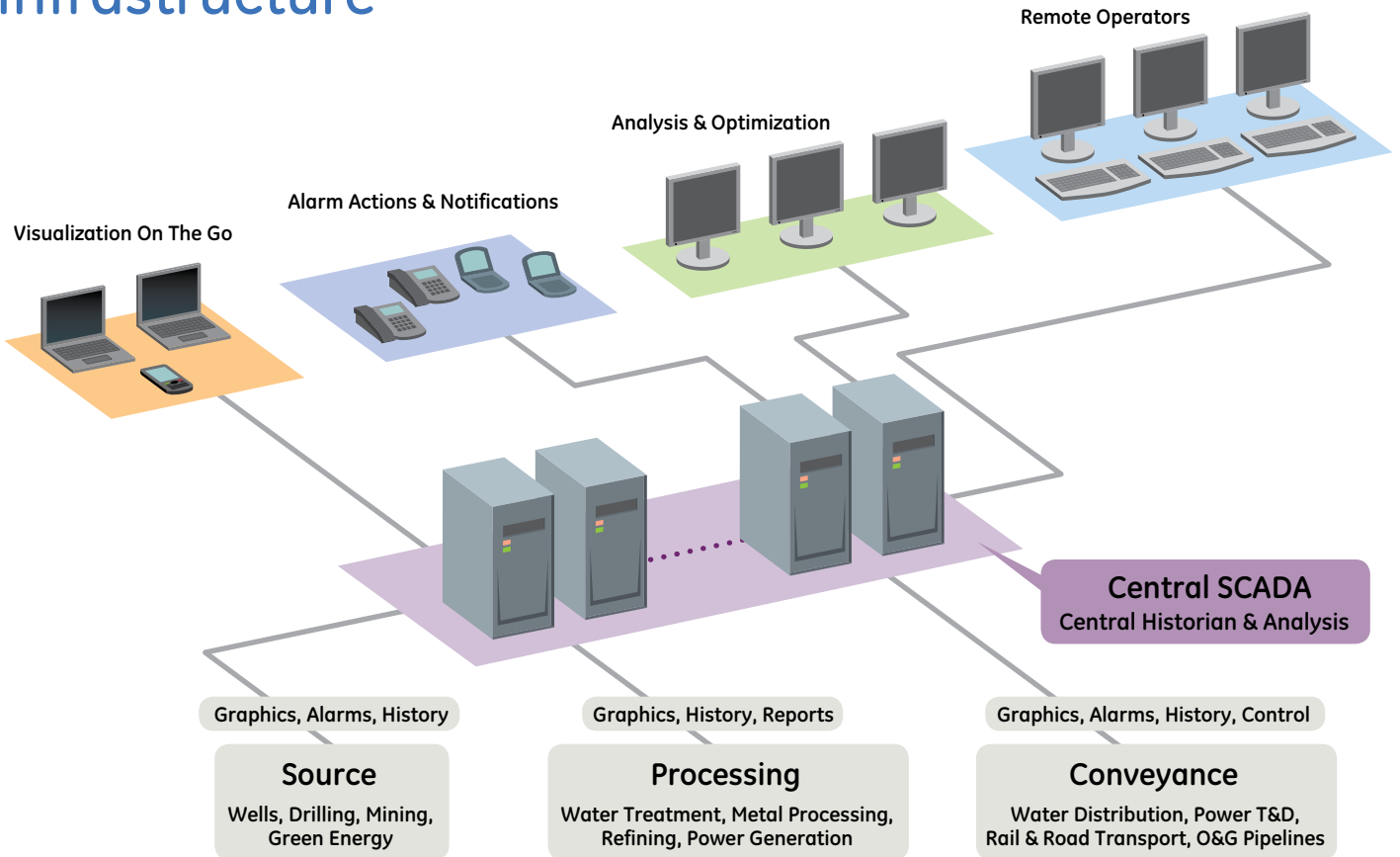
A collaborative approach enables you to share real-time information at all levels of the enterprise—accelerating efficiency and effectiveness for a sustainable competitive advantage.

As businesses move away from an isolated silo approach to one that is integrated and collaborative, Proficy® HMI/SCADA-CIMPLICITY® software from GE Fanuc Intelligent Platforms leverages the latest technologies to connect the data you need across multiple, interrelated systems and departments.

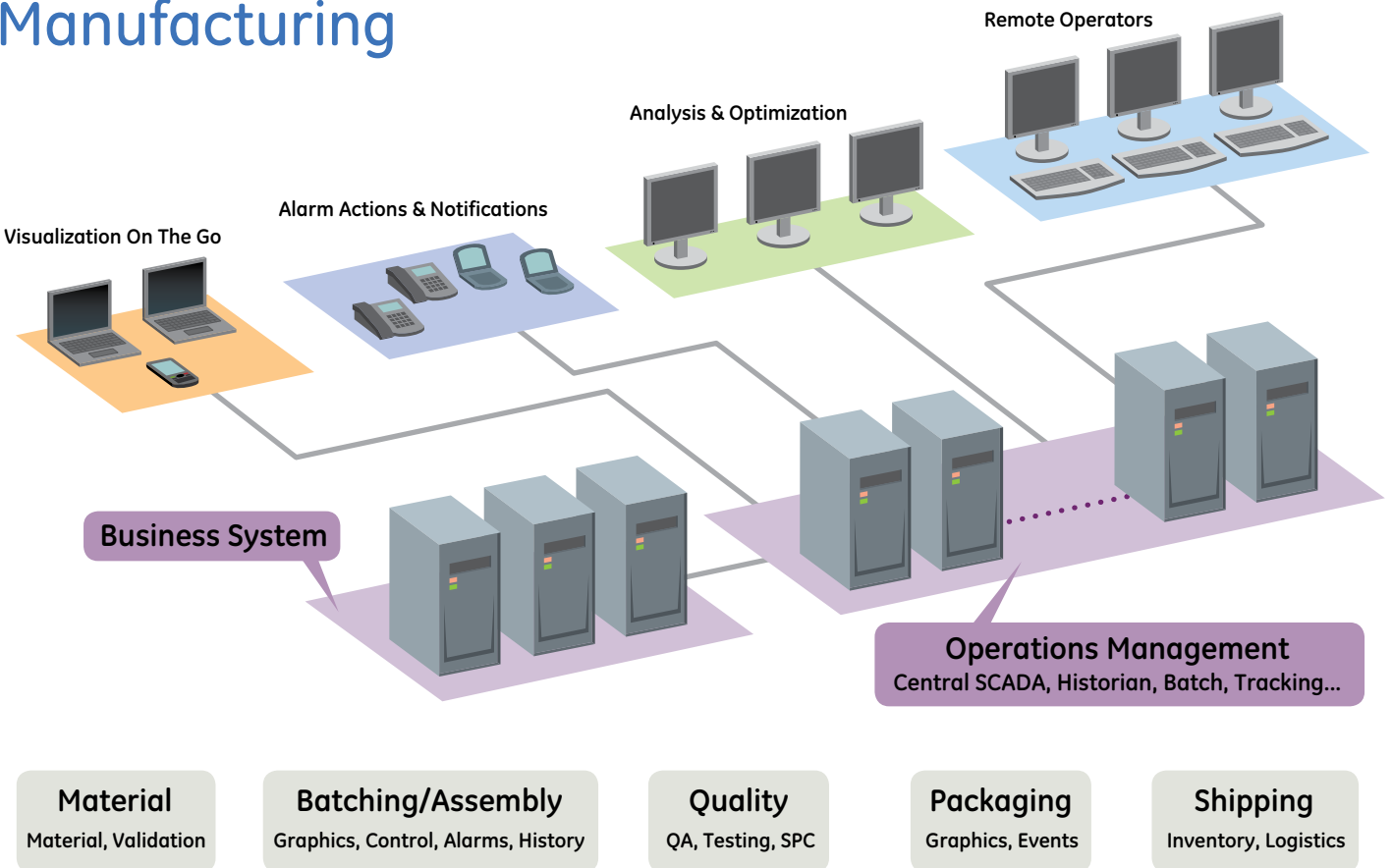
You can rely on our extensive domain expertise and experience to define and drive real solutions to real problems. With the power of our proven software, you can drive commonality and consistency across your operations for better, faster, and more cost-effective results—today and tomorrow.

CIMPLICITY is part of GE Fanuc's Proficy software suite of open, integrated and scalable solutions—designed to help you solve your greatest operations challenges. From control and optimization to lean production execution and enterprise integration, Proficy offers the depth and breadth of capabilities to keep your operations ahead.

# Infrastructure



# Manufacturing



Today's businesses have a more collaborative approach toward their operations, driving them to leverage an integrated view of their automation solutions.

# Proficy HMI/SCADA – CIMPLICITY

Enabling unprecedented insight into your operations, CIMPLICITY delivers superior control and visualization to increase your productivity and reduce costs.

In an increasingly competitive marketplace, the ability to truly understand and control your operations is critical for success. You need access to accurate, timely data to make informed decisions in real time. And you need the power and security to precisely monitor and control every aspect of your production environment.

CIMPLICITY can address your needs. It is a proven client/server based HMI/SCADA software solution that collects and shares real-time and historical data across all business levels and provides actionable visibility to monitor and control plant processes, equipment and resources.

Helping you visualize, control, analyze and optimize production data across your operations, CIMPLICITY delivers value-added results for a competitive edge:

- ▶ Enhanced decision making
- ▶ Faster time-to-market
- ▶ Improved productivity
- ▶ Reduced development costs
- ▶ Lower total cost of ownership

Unlike any other solution, CIMPLICITY enables you to visualize plant floor operations, perform supervisory automation and deliver reliable production data to higher-level analytic applications—maximizing the power of your information.



# Flexible, integrated and scalable

With the power to meet your current and future needs, CIMPLICITY offers a highly flexible architecture that can be applied as a small solution or a larger enterprise solution.

**The Proficy HMI/SCADA – CIMPLICITY Viewer** is the standard CIMPLICITY client. Serving as a traditional PC-based client, it is installed locally and accesses data from a local or remote server. Applications you can run include real-time graphics, trending, alarming and reporting. A CIMPLICITY Development Viewer option allows users to perform development online, including building graphics and adding points to local or distributed servers.

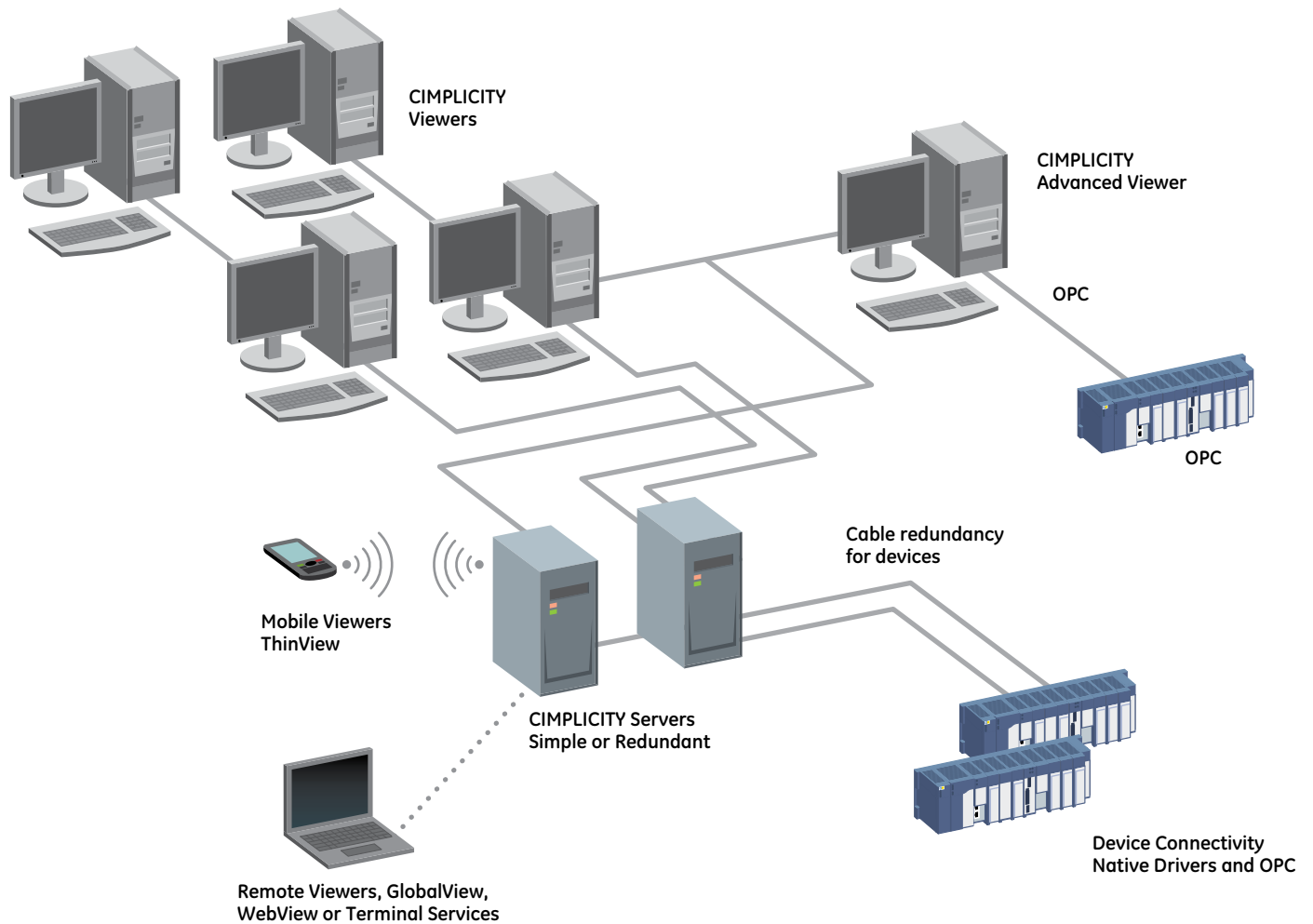
**CIMPLICITY Advanced Viewer** is an option on the CIMPLICITY Viewer that offers direct connection to OPC data sources—allowing for point solutions and the ability to visualize OPC data without configuring the server.

**Proficy HMI/SCADA – CIMPLICITY WebView** is a thin CIMPLICITY client solution for distributing information to many users—enabling you to send CIMPLICITY information and view operator screens over the Internet or Intranet with no Internet server setup or deployment effort.

**Proficy HMI/SCADA – CIMPLICITY ThinView** is a CIMPLICITY client solution that allows you to display CIMPLICITY screens on a PDA or smart phone device, providing the ultimate in remote viewing capability.

**Proficy HMI/SCADA – CIMPLICITY Terminal Server Viewer** is a thin client and web solution that uses the Microsoft® Terminal Server technology and provides the capabilities of a standard CIMPLICITY Viewer—providing users with complete access to their screens and the CIMPLICITY Server with full use of CIMPLICITY Viewer technology, ActiveX controls and third-party content.

**Proficy HMI/SCADA – CIMPLICITY GlobalView** is a web-based client that enables full viewing and control of your CIMPLICITY application from within a browser. GlobalView delivers a fully functional CIMPLICITY runtime client in Internet Explorer or Firefox with support for third-party integrated applications, custom animations, and scripting—enabling users to access any level of system functionality from within the plant or across the globe.



CIMPLICITY is a highly scalable solution that can run in a simple or redundant architecture with a wide variety of viewer or client options to offer flexibility when architecting your solution, providing you with more control over how and where you view your data.

**CIMPLICITY's key technical benefits:**

- Easy application development and deployment
- Seamless scalability with a true client/server architecture
- Tight integration with Proficy software suite
- Open system design to protect your current investments
- Change-based execution architecture

# Increased operational productivity and process improvement

Keeping you ahead with the most advanced technologies, CIMPLICITY delivers unprecedented insight into your operations with powerful features that improve productivity and efficiency.

**Database Logger** provides the ability to choose how and where you want to store your critical and valuable production and process information. CIMPLICITY supports logging to Proficy Historian, Proficy SQL, Microsoft SQL and Oracle.

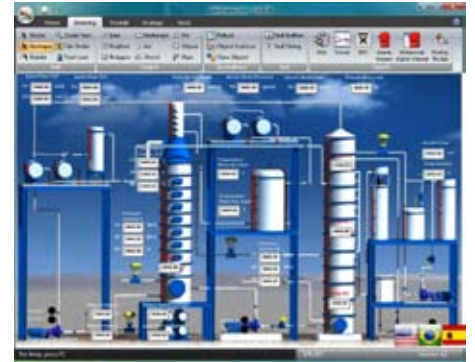
**Trending** allows you to analyze data collected by the CIMPLICITY system or other third-party software packages. You can compare current trends with historical trends to quickly identify and correct process malfunctions; Quicktrends provide a fast, easy way to select any point and trend it with no configuration.

**Dynamic Time Handling** enables dynamic time handling capability on the client side and allows the users to change time zones “on the fly”. This enables global applications and eliminates the guesswork on when the actual events occurred.

**Enhanced Security Protection** reduces the risk of unauthorized file/program access and core system issues by only requiring a Microsoft Windows® Vista®/Server 2008 standard user account to develop and run your application. It's fully operational while using a standard user account with no User Account Protection (UAP) security prompts.

**Digital Graphical Replay 2.0 (DGR)** allows you to replay and analyze past events in slow motion, real time or up to 10x the speed—enabling you to identify and troubleshoot issues and prevent repeat occurrences. DGR provides the ability to replay trend data as well and drives more intelligent decision making and accelerated issue resolution.

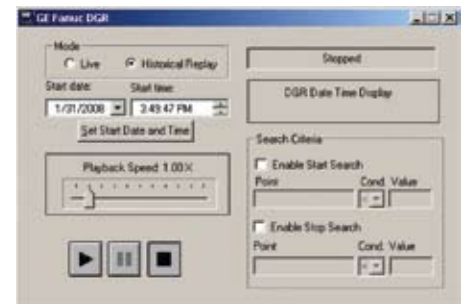
**Statistical Process Control (SPC)** provides tools for data measurement and analysis, as well as process improvements and quality control. Collect data from sensors or manual input, receive alerts for problem conditions (i.e., out of control) and use analysis tools to pinpoint the problem.



A powerful graphics engine based on vector graphics enables high-performance runtime visuals.



CIMPLICITY offers a variety of value-added options such as SPC charts to monitor process quality.



A powerful troubleshooting tool, DGR allows you to playback from a point in time, or you can have the DGR search for conditions in the data and automatically set start and stop times based on those settings to determine the cause of events.

# Enhanced control and minimized risk

To help you manage your systems and protect your investments, CIMPLICITY delivers reliability, high availability and performance.

**Powerful Data Collection** enables you to connect to hundreds of other systems and devices. Through native drivers and standard communication interfaces such as OPC, you can collect data from virtually any third-party device.

**Change-Based Execution Architecture** enables you to acquire data from field devices (either polled or via unsolicited communications), perform database math and logic, archive data, network data and run scripts—all based on change—unlike other products that offer a scanned execution environment.

**CIMPLICITY Host Redundancy** provides for the failover from a primary computer to a secondary computer in case the primary computer fails, supporting redundancy at several levels to minimize the effect of any failure.

**Dynamic Configuration** allows you to make changes, modifications and updates to running CIMPLICITY projects without shutting down.

**Change Management** increases the security of your system, provides you with revision control of your projects and offers powerful disaster recovery capabilities.

**Action Calendar** gives you the power to create, maintain and execute a calendar schedule of manufacturing events and corresponding actions. This allows controlling lights, heat and equipment based on a pre-defined schedule.

**System Sentry** provides real-time information about the health of the computers and the CIMPLICITY application within a network—immediately alerting you to problem conditions and providing tools to pinpoint the cause.



CIMPLICITY provides superior reliability and availability for the most demanding industrial applications—maximizing uptime and continuous control for increased productivity and profitability.

# Faster time to solution

To help you build your application quickly and easily, CIMPLICITY comes with a powerful set of development tools and capabilities.

**Application Wizard** guides you through the steps of getting started with your new application so you don't need to start with a blank page, saving you hours of setup time.

**Screen Navigation** helps operators easily locate the correct screens. Using a drag-and-drop interface, you can create a hierarchical menu that appears in your tool bar, and configure colors and fonts so that screens can follow themes.

**Scalable Screens** allow you to modify dimensions of the CIMPLICITY screens without redrawing graphics. CIMView will scale the screens for various devices, so you don't need to develop new screens for different display sizes.

**Symbols and Objects Library** features an extensive library of symbols, along with the powerful SmartObjects feature that allows for easy application creation and maintenance. With SmartObjects, you can create your own custom objects and easily drag and drop them into the screens.

**Powerful Object Model** provides an external interface to CIMEdit and CIMView to extend the capabilities of the system. You can drive behavior through a powerful API to integrate with ERP and other external systems.

**Scripting** extends CIMPLICITY capabilities and tailors the individual applications according to specific needs. Scripts can be executed based on process events such as changing the value of a point, a specific alarm state or can be based on time of day.

**Linked Objects** allow you to create master objects as templates and have those objects created and used identically on multiple screens. The objects can contain graphics and scripts and are linked to the master object—automatically replicating when changes are made to the master.

**System Points** provide pre-defined information for your applications such as project and computer information, date and time, and alarms.

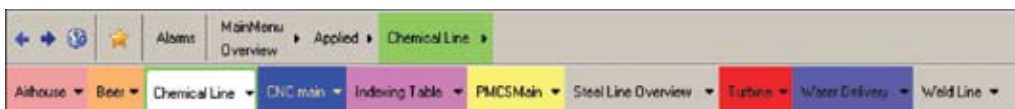
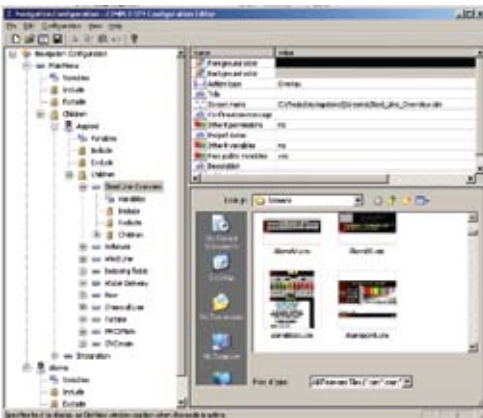
Powerful APIs allow you to develop your own direct interfaces with the data and alarm information collected, managed, and maintained by CIMPLICITY. This design provides seamless integration of custom or third-party applications.



**Dynamic Measurement Systems** enable you to develop projects and dynamically switch between different measurement systems with a simple point and click.

**Dynamic Screen Localization** enables a CIMPLICITY application to be adapted to accommodate multiple users who speak different languages.

**Alarm Viewer** is an ActiveX object that can be embedded into screens to create a single, seamless interface for your process.



You can easily create navigation menus for your application.

### Easy to commission

Once your project is developed, CIMPLICITY also offers tools for deploying and troubleshooting during the critical commissioning phase.

**DEPLOYMENT SERVER** eliminates the need to manually copy the application files to the viewers, as updated application files can be placed in the application server, and the viewers will automatically detect changes and update the files without user interaction. Running viewers will have the option to update live displays automatically or ask the operator when to update.

**POINT CONTROL PANEL** allows you to verify the data collection and alarm configuration of your system without configuring a single graphics screen.

**POINT CROSS REFERENCE** enables you to easily locate where various point data is being used to facilitate troubleshooting your application.

# Increase the power of CIMPPLICITY with Proficy Historian

By integrating CIMPPLICITY with our historian solution, you can deploy real-time data management solutions and revolutionize your applications with a powerful software combination that drives results.

Providing a robust and effective plant data repository, Proficy Historian enables your CIMPPLICITY system to collect, archive and distribute large volumes of real-time, plant floor information at incredible speeds.

Historian provides the ability to read and store all types of process data—enabling a window into your manufacturing operations—and feeds the higher-level operations management systems with accurate, real-time information.

Whether you're a small municipal facility, a global pharmaceutical company or any business that needs to capture mission-critical data, Historian can help improve your profitability and productivity.



The tight integration of Proficy HMI/SCADA - CIMPPLICITY and Proficy Historian takes your operations to the next level with true information—not just data—for enhanced decision making.

Key technical benefits include:

- ▶ A highly reliable system architecture
- ▶ Easy configuration and administration
- ▶ Superior collection, storage and retrieval performance
- ▶ Enterprise-level data management
- ▶ Extensive standards-based connectivity
- ▶ Single point of configuration

## Features and functions

**Connect-and-Collect Capabilities.** You can utilize CIMPLICITY's powerful set of drivers and SCADA engine for data acquisition into Historian, or you can use a standalone Historian solution. The core historian engine features store-and-forward capability and automatic reconnection to a server—ensuring that data is never lost during a network outage.

**Versatile and Simple Administration.** CIMPLICITY provides an easy-to-use interface to log tags to Proficy Historian and use a shared tag database—eliminating the need to configure both products separately. In addition, when developing your application, you can pull data from historian with ease rights into your screen or scripts.

In addition to the CIMPLICITY administration integration, Historian provides both a Windows®-based and web-based administrator that have similar interfaces and operate in the same fashion—eliminating the need for additional training. Users can access and configure Historian from virtually anywhere, including over the Internet.

**Archive Data Servers.** The archive manager administers the archive files and is completely configurable to meet the specific needs of your application. It serves as the main data retention and information conduit, providing full archive management and messaging services.

It also enables online system backups without the need to disconnect clients, as is often required by other data historians. With Microsoft Cluster Server, you can configure two historian servers in a primary-backup pair for uninterrupted access to critical production data.

**Interfaces.** Historian provides two standard interfaces, the OLE DB Provider and a Software Developers Kit (SDK), plus many optional client tools and applications. You can easily integrate Historian with OLE DB-aware applications such as Microsoft SQL Server, Business Objects™ Crystal Reports, Excel®, Proficy HMI/SCADA VisiconX and others. You can also query the data, alarms and events, and system and administrative information using standard SQL commands.

## Easy setup and integration

**Step 1** From within CIMPLICITY, set up your Proficy Historian connection.



**Step 2** Enable Historian collection through a single click when setting up the CIMPLICITY tags.



**Step 3** Integrate historical data into your application with VisiconX, Digital Graphic Replay (DGR) or scripts.



For more information about how CIMPLICITY can drive results for your business, visit [www.gefanuc.com/cimplicity](http://www.gefanuc.com/cimplicity)



### **GE Fanuc Intelligent Platforms Information Center**

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1 800 322 3616  
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For contact information in countries not listed,  
please visit our web site at [www.gefanuc.com](http://www.gefanuc.com)

### **Additional Resources**

For more information, please visit the  
GE Fanuc Intelligent Platforms web site at:

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