



# Proficiency Cause+

## Real-time Predictive Analysis With Intelligent Correction

### Features

- Real-time analytical engine
- Tight integration with Proficiency Troubleshooter, Proficiency Historian, Proficiency HMI/SCADA – iFIX\* & Proficiency HMI/SCADA – CIMPLICITY\*
- Root cause identification
- Proficiency Action Object definition
- Development wizard interface
- Web-based reporting

### Advantages

- Reduce operator errors
- Identify issues with a list of possible causes before your business is affected
- Transform your data into actionable information
- Reduce training and maintenance
- Increase consistency and quality of information
- Improve uptime and machine performance

GE Fanuc Intelligent Platforms offers Proficiency\* Cause+, a powerful software add-on solution that enables you to obtain more value from your HMI/SCADA system by providing likely causes for problems in real time. It enables an intelligent form of proactive alarming and decision support so operators can correct issues before a problem occurs.

### Active Avoidance

With Proficiency Cause+, you can analyze real-time information based on intelligent historical data models and have your system predicting future alarm events. With Proficiency Cause+ predictive analysis, your team can put the appropriate corrective actions in place—reducing downtime and maintenance costs and increasing your productivity.

### HMI/SCADA Real-Time Interface

The real-time action object displays causes for operators and process engineers right in your HMI/SCADA application, as well as operator actions or guidance messages. Proficiency Cause+ enables production and manufacturing engineers or process specialists to instantly receive real-time causes for future process deviations.

### Always “On”

Proficiency Cause+ contains a powerful analytical engine that interfaces seamlessly into your HMI/SCADA applications and constantly reviews and analyzes your data. Proficiency Cause+ can apply binary or non-linear predefined rule sets against your incoming real-time data. No matter what staff is on the clock, Cause+ is always

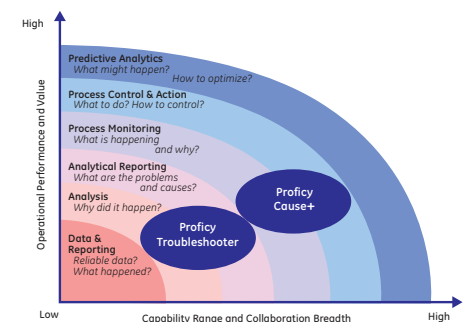
working in the background, reviewing the data and enunciating in the event something is out of alignment.

### Intelligent Correction

You can instruct Cause+ how to react, and it delivers consistent instructions to your operators every time. By linking messages to specific data models and rule sets, your operators can instantly receive corrective actions prior to the issue occurring.

### Post-Alarm Analysis

Proficiency Cause+ can also be used offline—enabling your team to analyze your data and establish the root cause of faults, warnings or alarms. You can also enable your engineering staff to transpose the large amounts of data within your HMI/SCADA and realize increased value by identifying both positive and negative aspects about your process.



**Proficiency Cause+** analyzes your real-time data based on information from Proficiency Troubleshooter, another powerful, tightly integrated GE Fanuc solution that extracts knowledge from your existing historical process data.



# Proficy Cause+

## Cause+ Application Example

To meet processing objectives for improving efficiency, reducing production costs and improving product quality, HMI/SCADA operators have to continuously monitor and make decisions on large quantities of data. This data also needs to be analyzed in context with what is happening in the process. Proficy Cause+ helps direct HMI/SCADA operators' attention to the issues that matter, both preemptively and in real time, to eliminate them before they occur and/or to assist after they occur.

A typical scenario:

1. High temperatures in a key processing utility can compromise product quality. The temperature starts deviating toward a critical condition.
2. Proficy Cause+ extrapolates the scenario in real time and determines that a critical condition is likely, using a process model built on past scenarios and process knowledge.
3. Cause+ uses the process model to identify and quantify what the major causes for the temperature deviation are and alerts the operator.
4. The operator acknowledges the condition and causes, and adjusts the process to prevent the critical condition from occurring.

## Collaborative Knowledge Sharing

Proficy Cause+ enables you to harness the power of your best assets—your workforce! By adopting their knowledge into the Cause+ real-time engine, you enhance the system's ability to predict impactful events and alarms.

The ability for your operators to advise on situations that have come up in the past enables Cause+ to harness their exhaustive knowledge and transforms your Cause+ installation into a collaborative, information-sharing platform.

## Analyze, Define and Deploy

Proficy Cause+ can be easily integrated into large or small HMI/SCADA installations and is designed to scale as your operators, engineers or technical staff find new data correlations.

Cause+ is configured with a couple of easy steps:

1. Analyze your systems historical data within Proficy Troubleshooter
2. Define your Cause+ alarm setpoints
3. Outline the applicable corrective messages
4. Deploy to your live Cause+ system

Additionally, Cause+ delivers out-of-the-box, standalone web-based reporting that can display causes of variations—not only in real time, but also over the last shift, day, week, month, or a custom period.

## Easy to Use and Scalable

Proficy Cause+ enables your business to harness the knowledge of your current workforce and automatically analyzes your systems 24x7 365 days a year. Cause+ is also scalable and can be administrated with ease—enabling your staff to add to its knowledge over time for increased quality and productivity.

## System Requirements

### Software

- Proficy HMI/SCADA iFIX or CIMPLICITY
- Proficy Troubleshooter
- Proficy Historian
- Windows® XP, Vista or Server 2003

For more information, visit [www.gefanuc.com/cause+](http://www.gefanuc.com/cause+)

## GE Fanuc Intelligent Platforms Information Centers

Headquarters:

1 800 GE FANUC  
1 800 322 3616  
1 434 978 5100

Global Regional phone numbers are available on our website at [www.gefanuc.com](http://www.gefanuc.com)

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## Additional Resources

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

[www.gefanuc.com](http://www.gefanuc.com)

