

The Industrial Interface Company (NZ) Ltd, is pleased to offer you...

Proficise

Issue Two - August 2006

Welcome to the second issue of our new HTML based newsletter – Proficise. It's been a long time between issues, so this issue has a few items to catch up on.

In this edition, we cover:

- [Productivity Pack #2 for iFIX v4.0 - Out Now](#)
- [Introducing OEE - Overall Equipment Effectiveness](#)
- [Introducing the Proficy Enterprise Connector](#)
- [Product Update - Proficy Batch v5.0](#)
- [Product Update - Proficy Change Management v5.5](#)
- [Product Update - Proficy Historian v3.1](#)
- [Product Update - Proficy Real-time Information Portal v2.6](#)
- [Homebrew for iFIX - Introducing 3rd party add-on's](#)
- [Barrys Tech Tip](#)

As always, if there is anything that you would like covered in a future issue of Proficise, please let us know as we are always open to suggestions (proficise@iic.co.nz).

Productivity Pack #2 for Proficy HMI/SCADA iFIX v4.0 - Out Now

This quarterly release continues GE Fanuc's commitment to continue to deliver new tools, utilities, and add-ins for its HMI/SCADA products in the form of Productivity Packs, which are available to all iFIX GlobalCare customers.

Enhancement #1 - Alarm & Event Express

OPC Alarm and Events (A&E) is the standard for real-time access to Alarm, Event and System messages in the automation industry. iFIX supports OPC A&E, both as a Server, providing messages to other clients, and as a Client,

viewing OPC A&E data from other sources. GE Fanuc's Alarm & Event Express is an OPC Client that enables you to send emails based on OPC A&E messages.

Email destinations include your corporate email servers, simply selected as an IP address or server name, and other email servers that require additional User and Password authentication.

Alarm & Event Express can send emails to one or more destinations. Each email destination offers a weekly schedule with hour level time resolution. The schedule controls email address validity throughout the week.

Email messages can include a subject and attachments. Typical uses include highlighting the purpose of the email in the subject and attaching a report of additional information, or attaching a document that defines alarm or event management procedures.

Enhancement #2 - Win 911 ActiveX Control

iFIX offers extensive connectivity to a variety of third party products through standards like OPC, ODBC and VBA, but one product stands out as the premier solution for advanced notification applications. Win-911 offers tight coupling with iFIX and a significant installed base, highlighting it as the industry choice for use with iFIX in applications ranging from Water/Wastewater and Oil and Gas to Building Security and all other manufacturing applications.

Win-911

Win-911 is a notification product offering E-mail, SMS, Paging and Telephony notification of iFIX alarms and events. Win-911 delivers the ability to monitor tags from an iFIX database. It offers the ability to organize tags into groups, and notify individuals based on schedules.

We have been recommending, selling and supporting Win911 since the early days of FIX32. The latest release of Win-911 is further integrated with iFIX, offering ease of use and a speedy configuration by importing tags directly from an iFIX database and offering an integrated ActiveX control for accessing and configuring Win-911 during runtime right from an iFIX display. With iFIX 4.0 and above, GE Fanuc offers validation of Win-911 integration with each new iFIX product release.

Where to get Win-911

Win-911 solutions can be purchased through the Industrial Interface Company, packages start at \$1,800.00. For more information on Win-911 please email win.911@iic.co.nz

Enhancement #3 - The Persistent Array Block

A third item in the productivity pack delivers a new block type created for use for use in the iFix v4.0 Process Database the Persistent Array Block allows customers to store up to 60 values per block that can then be referenced in their applications.

Users now have a purpose-built area for storing all types of values from Integers to Scientific Notation. As they build applications, they can now isolate variables that change from application to application to one area for improved documentation, and troubleshooting.

All of the above enhancement's contained within Productivity Pack #2 and those released in last quarters Productivity Pack #1, can be downloaded from the GE Fanuc GlobalCare Website at <http://globalcare.gefanuc.com/>

[Back](#)

Is your plant running efficiently ? Introducing OEE - Overall Equipment Effectiveness A way to measure your plants performance.

A key metric that many people are using to measure plant or line efficiency is called Overall Equipment Effectiveness, or OEE. Based on the results of an OEE calculation, companies can understand objectively how well they're performing, identify and eliminate their constraints, look for areas of improvement, identify targets and align those improvements with the larger business strategy.

OEE is calculated by measuring three things: **Equipment Availability**, **Performance**, and **Product Quality**. Effectively this calculation is asking, "is my machine up or down (as a function of scheduled uptime), how much am I producing (as a function of expected throughput), and how much "good" product am I making (as opposed to waste or scrapped product)?"

Equipment Availability first attempts to calculate Total Operating Time by subtracting Downtime (OEE will also capture the reasons for downtime) from Operating Time or Uptime.

Performance then looks at the Total Output of the machine versus the Potential Output.

Finally, **Product Quality** measures the Good Output as compared with the Total Output.

OEE, expressed as a percentage, is then calculated by multiplying those 3 factors together to come up with a number. This number provides the foundation for improvement by allowing the Efficiency to be measured against other plant metrics as well as against other industries for benchmarking.

This solution should not be overstated; OEE systems alone will not increase production or improve quality. OEE systems provide the information so that areas of improvement may be identified. However, just as automating a bad process will result in an automated bad process, there are some critical success factors when it comes to deploying an OEE solution.

Successful Deployment of OEE solutions

First, the data should be collected electronically and automatically. The data needs to be accurate for the system to be effective, so manual, paper-based data collection is an inefficient means of collecting data such as downtime and reason codes. In addition, if the data is stored electronically, it is available for further analysis.

Second, the data collection should be fast. Ideally, the system will reflect efficiency and quality data in real time, so a rapid means of collecting the data is necessary for the information to have the greatest impact.

Third, the data must necessarily be accurate. This can sometimes be difficult to accomplish, so an effective process should be applied to the practice of collecting data.

Fourth, the data collection should be flexible to allow for different types of analysis as priorities change and also extensible so the system can grow.

Lastly, the data collection should be consistent and aligned with the goals of the business. Different departments may measure OEE differently so it's imperative to have a consistent measurement across the business.

Conclusion

The pressure that is mounting on industry will continue to grow. Consolidation, regulatory action and price pressures are trends that are here to stay. Manufacturers need to change the way that they make product and operate more efficiently. The growing acceptance of OEE in industry, along with the number of available systems on the market, make this an ideal time for manufacturers to embrace the concept of OEE.

OEE solutions - as an element of a larger Manufacturing Intelligence strategy - will provide the information and the opportunity to drive inefficiencies and waste out of their manufacturing processes. They will provide much greater visibility into operations. And finally, OEE will allow managers to make more effective, more objective and more informed decisions in real time.

For more details on GE Fanuc's OEE solutions contact OEE@iic.co.nz

[Back](#)

Introducing the Proficy Enterprise Connector: B2MML - Business to Manufacturing Markup Language

The Proficy Enterprise Connector enables the mapping of external Business Systems requests to/from the Proficy Information Architecture. The information from manufacturing facilities is now available to the business to make more rapid, informed, business decisions.

The Proficy Enterprise Connector leverages the [ISA-95 standard](#) to define an interface between an enterprise's business and its manufacturing systems through an XML-based B2MML (Business to Manufacturing Markup Language) schema.

The connector automatically generates B2MML schemas and message types for immediate use in orchestrations and/or mapping. It exchanges messages from all of the various, connected business applications with Proficy, enabling ERP visibility into Production Management real-time data for material consumption, performance reporting, schedule execution and other supply chain and/or enterprise-level functions.

It is supplied, out-of-the-box, with a number of B2MML-based templates to help jumpstart the integration process and speed a user's Time-To-Value. The B2MML-based templates can be tailored to meet the specific needs of a customer, site or implementations of an ERP system.

The Proficy Enterprise Connector, offers a packaged two-way information highway between the Proficy Platform and enterprise systems such as SAP – which enables users to achieve the real-time enterprise by making business sense out of plant data in real time. For use in Plant-to-Business solutions, workflows and Enterprise Application Integration (EAI), this new enterprise connector provides off-the-shelf support for Business-to-Manufacturing Markup Language

(B2MML) schemas and standard SAP orchestrations, and is based on Microsoft Corp.'s BizTalk® Server.

For more information on GE Fanuc's Enterprise Connector contact B2MML@iic.co.nz

[Back](#)

Product Update - Proficy Batch v5.0

Proficy Batch v5.0 software, delivers complete data collection, robust batch management, clear process visualization and powerful supervisory control capabilities. Batch Version 5.0 has been optimized to boost production efficiency, increase return on investment (ROI) and improve batch manufacturers' ability to meet regulatory demands.

Version 5.0 introduces new features such as "Batch Direct" to speed implementation and reduce costs. In addition, the software features improved analysis capabilities to increase batch quality, OPC 2.0 support for quicker connectivity, and Local Regional Support (LRS) and Multi-Language Support (MLS) reinforcing its capability to deliver global solutions.

[Back](#)

Product Update - Proficy Change Management v5.5

Proficy Change Management v5.5 protects software and engineering assets and aids with meeting government regulatory requirements. Along with electronic signature capability, software delivers security, version control, audit trails, central storage, and automated backup and recovery features. It also includes email configuration tool with events trigger, HTML-based change history report, and compare utility that permits specification of data filter for each project.

[Back](#)

Product Update - Proficy Historian v3.1

Scalable to 100,000 data points per server, Proficy Historian v3.1 collects, archives, and distributes all types of real-time, plant floor production data. It can retrieve data from multiple sources and identify root causes of undesirable events. Able to integrate with existing plant floor systems, it provides OPC alarm

and events collection and storage capabilities as well as co-existence and integration with OSI Software PI systems through 2-way data sharing.

[Back](#)

Product Update - Proficy Real-time Information Portal v2.6

Plant-wide web trending and analysis software, Proficy Real-Time Information Portal v2.6, allows users to gain business insight from plant data in real-time. With trending and reporting capabilities that use historian archive technology, it calculates, analyses, and presents overall view of KPIs and other metrics to run processes more efficiently. Dynamic Graphics facilitate HMI-type view of plant-floor operations with real-time and historical data animations. The open nature of Proficy Real-Time Information Portal also makes it easy to integrate into a variety of other application solutions to provide users with the precise data they need to make more informed decisions.

[Back](#)

Homebrew for iFIX... introducing 3rd party iFIX add-on's

Catapult Software, one of our local System Integrators, have developed a number of add-on modules for Proficy iFIX. Here is a brief outline of a couple of the modules that they have developed, for a full listing please visit - www.catapultsoftware.com:

[Menu – Configurable Menus for Proficy iFIX](#)

MENU for iFIX provides common Windows and Internet navigation functions that are instantly familiar:

Back: Recalls previously displayed picture or pictures

Forward: Returns after using 'Back'

Home: Displays your chosen home or start-up picture

Favorites: Lets each user add/organize quick access to their personal favourite displays

Window: Shifts multiple windows between back and front

Help: Access iFIX electronic books; Operator and Configurator Guides; Online support request

[Pan & Zoom – Pan and Zoom with Automatic Clutter / Declutter](#)

More detailed information is automatically displayed when an operator zooms into a picture. As they zoom out the reverse happens, automatically removing the “clutter” from their view. Panning enables operators to seamlessly transverse large pictures, or to move around when “zoomed in” to the detail on standard pictures.

If any of our other systems integrators have other ‘home brew’ that they wish to promote to our user base, please email us on swappacrate@iic.co.nz.

[Back](#)

Barrys Tech Tip - DEP (Data Execution Prevention)

Data Execution Prevention (DEP) is a set of hardware and software technologies that perform additional checks on memory to help prevent malicious code from running on a system. DEP is enforced by Hardware and (beginning with Microsoft Windows XP Service Pack 2 and Windows 2003 Server Service Pack 1) by Software. That's nice, but what does it have to do with me ?

If you are working with the latest versions of iFIX, iHistorian or Portal you will probably not see any issues. However, if you are trying to install an earlier version of iFIX, iHistorian or Portal on a new Windows XP or Windows 2003 Server Operating System then DEP could interfere with the older HASP key drivers and create installation issues.

OK so I'm trying to install iFIX v3.5 on a new Windows XP PC and it's locking up. What can I do ?

Step #1 - Disable DEP

- Temporarily disable DEP.
- Restart your computer, Go into BIOS and if present disable DEP, Save and exit.
- After Windows has restarted edit the Boot.ini located in the C:\ drive and change the /noexecute option to the following: /noexecute=alwaysoff, Save the file and reboot the PC, Note: Boot.ini is a Read-Only Hidden System file.

Step #2 - Install iFIX

- Install iFIX.

Step #3 - Update the HASP Drivers

- Check your key to see if you are running either a HASP M1 or a HASP4 key. You can see this written on the key.
- [Click here to download the drivers for HASP M1 keys](#) and [here for the drivers for HASP4 keys](#).
- Download the HASP Device Driver GUI Installation, Unzip the file and run the .exe to install the HASP update.
- Restart iFIX, it should now start normally.

If you run in to any issues dealing with DEP & our products, please give me a call and i'll work through them with you.

[Back](#)

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