



Wollongong Ph: 61 2 4272 1899 Fax: 61 2 4271 4668	Sydney Ph: 61 2 9543 3611 Fax: 61 2 9543 3622	Melbourne Ph: 61 3 9882 8900 Fax: 61 3 9882 8799
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Course: CBS339 - Introduction to Proficy Machine Edition View

Course Duration: 2 Days

Course Fee: A\$ 1000 ex GST



Course Description

The *Proficy View – ME Fundamentals* course familiarizes the student with operating in the ME development environment, understanding the concepts of a project, creating graphical panels, writing scripts, configuring alarm & logging schemes, and launching the project into View Runtime. Students are also introduced to Networking, Web Access and OPC features. An experienced instructor is provided to guide the student using demonstrations and hands on lab exercises.

Who Should Attend?

The course is designed for programmers, operators, application designers, and system managers beginning to work with Proficy View, who will be tasked with developing, modifying and maintaining the programs.

Are There Any Prerequisites?

Participants should be comfortable operating in a Microsoft Windows environment, and have a basic understanding of electrical/control fundamentals.

What Tasks Will Be Taught in This Class?

Upon completion of this course, the student will be able to:

- Describe Control System Architecture & Operational Fundamentals
- Describe Basic Systems & Components (Series 90-30 or 90-70 or VersaMax, RX7i or RX3i)
- Operate Proficy Machine Edition
- Establish and Utilize Communications to the Controller
- Create a New Project - Basic Configuration of the Controller
- Expand Controllers and Describe Specialty Modules
- Create a New Project - A Ladder Logic Program
- Explain Relay and Contact Logic Elements
- Explain Timer and Counter Functions
- Work with Numbers in Relational and Arithmetic Operations
- Work with Data Move and Numerical Operations
- Work with bit operations

Course: CBS333 - Proficy Machine Edition Logic Developer PLC

Course Duration: 4 Days
Course Fee: A\$ 2000 Ex GST



Course Description

The **Proficy Logic Developer Machine Edition** course familiarizes the student with the control logic development tool suite used to program the entire family of GE Intelligent Platforms industrial control hardware. Emphasis is given to understanding and operating in the development environment, understanding the available logic development options, generating programs using the ladder logic language and communicating with control targets (90/30, 90/70, VersaMax, RX7i and RX3i controllers).

Who Should Attend?

This course provides the opportunity for individuals who are or who will be involved in programming, operating and troubleshooting control systems using Proficy Logic Developer PLC. The course is designed for electrical technicians, electricians, and programmers beginning to work with Proficy Logic Developer PLC or those tasked with developing, modifying and maintaining controller programs.

Are There Any Prerequisites?

Participants should be comfortable operating in an MS Windows environment, and have a basic understanding of electrical/control fundamentals.

What Tasks Will Be Taught in This Class?

Upon completion of this course, the student will be able to:

- Describe Control System Architecture & Operational Fundamentals
- Describe Basic Systems & Components (Series 90-30 or 90-70 or VersaMax, RX7i or RX3i)
- Operate Proficy Machine Edition
- Establish and Utilize Communications to the Controller
- Create a New Project - Basic Configuration of the Controller
- Expand Controllers and Describe Specialty Modules
- Create a New Project - A Ladder Logic Program
- Explain Relay and Contact Logic Elements
- Explain Timer and Counter Functions
- Work with Numbers in Relational and Arithmetic Operations
- Work with Data Move and Numerical Operations
- Work with bit operations



Course: CBS338 - PLC Maintenance with Proficy Machine Edition Developer ME

Course Duration: 3 Days
Course Fee: A\$ 1500 ex GST



Course Description

The GE Intelligent Platforms PLC Maintenance course provides the student with the skills necessary to troubleshoot and repair faults in GE Intelligent Platforms programmable logic controllers (**90-30, 90-70, VersaMax, RX7i and RX3i**). The class is taught using Logic Developer PLC software, which is part of the Machine Edition family of products. The focus is on interpreting existing ladder logic programs for troubleshooting purposes. Students are also taught how to use the troubleshooting tools within the software to determine where faults have occurred and how to correct them.

Who Should Attend?

This course is intended for anyone who will be troubleshooting GE Intelligent Platforms PLC control systems using Proficy Logic Developer PLC software. It is designed for electrical technicians, electricians, and/or engineers beginning to work with Logic Developer PLC, who will be tasked with modifying and maintaining PLC programs and hardware.

Are There Any Prerequisites?

Participants should be comfortable operating in a Microsoft Windows environment. Participants should have a basic understanding of electrical/control fundamentals.

What Tasks Will Be Taught in This Class?

Upon completion of this course, the student will be able to:

- Define the function of each hardware component of GE Intelligent Platforms PLC systems
- Describe the Machine Edition software environment
- Configure and establish communication to the GE Intelligent Platforms PLC hardware
- Configure GE Intelligent Platforms PLC hardware using Logic Developer PLC software
- Define the instruction set(s) for GE Intelligent Platforms PLCs
- Modify existing ladder logic in GE Intelligent Platforms PLCs
- Interpret existing ladder logic for troubleshooting purposes
- Research hardware and software information in Infolink
- Access and interpret controller and I/O fault tables
- Use troubleshooting tools within Logic Developer PLC software



Course: CBS426 - PAC Systems Advanced Programming

Course Duration: 4 Days

Course Fee: A\$ 2000 Ex GST



Course Description

The **PACSystems Programming** course familiarizes students with GE Intelligent Platforms PACSystems Controller programming concepts and Proficy Machine Edition software. Starting with the PACSystems software architecture, students are taught how to effectively develop control applications using building block concepts. This course builds upon Object-Oriented concepts with User-Defined Function Blocks (UDFBs), as well as the development of application components using Structured Text (ST) and Function Block Diagram (FBD) programming languages.

Who Should Attend?

This course is intended for those who are or will be involved in the development, modification, and troubleshooting of control systems using Proficy Logic Developer and PACSystems controllers.

Are There Any Prerequisites?

Participants should be comfortable operating Microsoft Windows, and have some experience of:

- Control fundamentals
- Proficy Logic Developer PLC
- Ladder Diagram (LD) programming

What Tasks Will Be Taught in This Class?

Upon completion of this course, the student will be able to:

- Describe the PACSystems Software Architecture
- Describe the RX3i PACSystems Controller Operation & Components
- Utilize the basic functions of Proficy Machine Edition – Logic Developer PLC
- Create New Machine Edition Projects
- Configure and work with RX3i PACSystems Controllers
- Utilize programming guidelines for developing robust control applications
- Understand and effectively use the different types of PACSystems Variables
- Use UDFBs to build structured applications
- Effectively use the Machine Edition Toolchest as a repository for Application Building Blocks
- Create, Monitor, and Modify running PACSystems applications
- Develop application components using Structured Text & Function Block Diagram programming
- Create application using Application Building Blocks previously developed in the course



Course: CBS349 - Proficy Change Manager Fundamentals

Course Duration: 3 Days

Course Fee: A\$ 1,800 ex GST



Course Description

The **Proficy Change Management** course is designed to teach users how to install, configure, use, and maintain a Proficy Change Management system. Valuable hands-on lab exercises are provided to guide students through the configuration and modification of a Proficy Change Management system.

Who Should Attend?

This course is designed for new users of Proficy Change Management software who are going to install and configure the software for use within an existing IT infrastructure.

Are There Any Prerequisites?

Participants should have a working knowledge of Windows operating systems and basic Windows networking. A basic understanding of the Proficy Machine Edition environment and experience with VBScript would be helpful, but is not required.

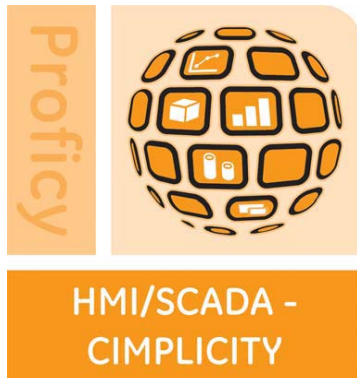
What Tasks Will Be Taught in This Class?

Upon completion of this Course, the student will be able to:

- Operate within Proficy Machine Edition Environment.
- Describe the Proficy Change Management Architecture and Design considerations.
- Configure the Proficy Change Management Client environment.
- Describe the Proficy Change Management Access Control system.
- View information from the Audit trail in Clients.
- Create reports using the Audit Trail Report Manager.
- Explain the architecture, components, and recommended use of the Proficy Change Management Scheduler.
- Create Factory Layouts and configure layouts with Access Control.
- Work with various types of projects in Proficy Change Management

Course Duration: 4 Days

Course Fee: A\$ 2,000 Ex GST



Course Description

The **Proficy HMI/SCADA CIMPPLICITY Fundamentals** course is an entry-level course focusing on the multiple aspects of project configuration. Valuable hands-on lab exercises are provided which guide students through the building and modification of the HMI application.

Who Should Attend?

This course is designed for Operators, Application Designers, and System Managers.

Are there any prerequisites?

Participants should have a working knowledge of Windows operating systems. Previous controls and HMI/SCADA experience is an asset.

What Tasks Will Be Taught in This Class?

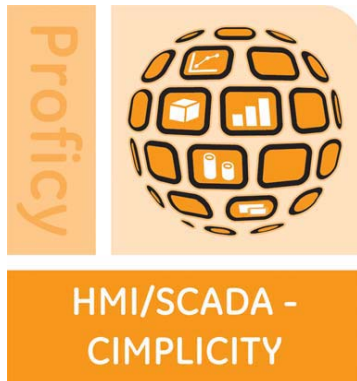
Upon completion of this Course, the student will be able to:

- Create and configure a new Project including the Point Database of the project.
- Configure graphic screens.
- Create Events and Actions using the Basic Control Engine, including simple scripts using a VB compliant language.
- Create Database Logging tables.
- Create and modify Trend Charts and Alarm Viewers.
- Work with Linked Objects.
- Work with Smart Objects.
- Work with the various Animation capabilities of CIMPPLICITY HMI.
- Use native and 3rd party ActiveX controls in CIMPPLICITY HMI screens.
- Work with Screen Variables to build displays quickly and efficiently.
- Build an elegant navigation scheme using the Navigation Configuration tools.

Course: CBS355 - Proficy HMI/SCADA Cimplicity Advanced

Course Duration: 3 Days

Course Fee: A\$ 1,500 ex GST



Course Description

The **Proficy HMI/SCADA – CIMPPLICITY Advanced** course will introduce the students to configuring Servers and Viewers, OPC Client and Server, Advanced Viewer, Database Logger & SQL Server Express, use variables with Linked Objects, Server Redundancy, Alarm Viewer custom buttons, Classes and Objects, VisiconX and Dynamic Graphic Replay (DGR). An experienced instructor is provided to guide the student using demonstrations and hands on lab exercises.

Who Should Attend?

This course is designed for Application Engineers and System Managers.

Are There Any Prerequisites?

Participants should have a working knowledge of Windows operating systems. Participants must have completed the Proficy CIMPPLICITY Fundamentals course.

What Tasks Will Be Taught in This Class?

Upon completion of this Course, the student will be able to:

- Configure Client nodes (Viewers)
- Connect CIMPPLICITY OPC Client to a 3rd party OPC Server
- Connect a 3rd party OPC Client to CIMPPLICITY OPC Server
- Use variables with Linked Objects
- Configure ODBC Data Sources
- Create custom buttons for the Alarm Viewer
- Use the Advanced Viewer
- Work with Classes and Objects
- Configure Server Redundancy
- Use VisiconX objects to display data
- Use the DGR



Course: KPS254 - Proficy HMI/SCADA iFix

Course Duration: 4 Days

Course Fee: A\$ 2,700 ex GST



Course Description

This course is primarily designed to provide the student with a good working knowledge of iFIX. It was designed with new users in mind; that is, the material in this course does not assume any prior knowledge of iFIX software.

This course includes lab time for configuring and applying the iFIX software to process applications. The course takes the student through the development of an application that uses many components of the software.

Who Should Attend

This course is designed for process, automation, or instrumentation engineers and system integrators who will be developing, configuring, and using applications on an iFIX system.

Are There Any Prerequisites?

- Familiarity with personal computers, especially Microsoft Windows Operating Systems.
- Working knowledge of process control applications.
- Familiarity with other GE-IP software is helpful, though not required.

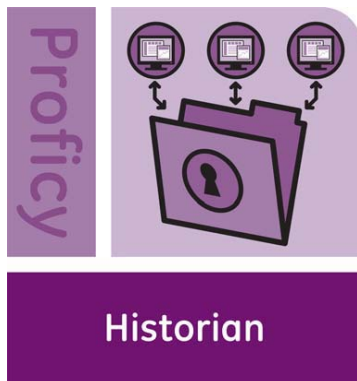
What topics will be covered in this course?

- iFIX Architecture (Basic and Networked)
- System Configuration, Path, Alarm, Network and Task
- Installing and Configuring I/O Drivers
- Configuring and Monitoring I/O Drivers
- Workspace Configuration
- Point Database Configuration
- Calculation and Event Tag configuration
- Using Time and event based schedules
- Alarm Configuration and strategy
- HMI Configuration and Object Animation
- Building Navigation
- Trending Configuration
- Historical Data Archiving
- Security Strategy and configuration
- Troubleshooting Alarms, Networks, SAC, Drivers



Course Duration: 3 Days

Course Fee: A\$ 1,800 ex GST



Course Description

The **Proficy Historian Development** course is designed to provide the student with a good working knowledge of Proficy Historian. Topics include administration focus for the server-based tasks as well as development focus for the client-based tasks. The course includes lab time for building skills essential to developing and maintaining the Proficy Historian in a process environment.

This **Proficy Real-Time Information Portal Development** course is designed to provide the student with a good working knowledge of RTIP. The material covers two broad categories of functions: Server-Administration tasks and Client-Visualization tasks. The course includes lab time for configuring and applying the RTIP software to data analysis applications for a variety of Proficy and third-party data sources.

Who should attend?

This course is designed for process, automation, or instrumentation engineers, system integrators and any other information technology (IT) professionals who will be developing, configuring, and using applications on a Proficy Historian RTIP Server and Client components.

Are there any prerequisites?

Participants should have a working knowledge of Windows operating systems and Microsoft Excel. An understanding of Plant Historian, Relational Databases and OPC is very helpful.

What topics will be covered in this course?

Upon completion of this Course, the student will be able to:

- Understand architecture communication between Proficy Historian Servers, Proficy Historian Client nodes RTIP Server and web browser Clients.
- Configure Proficy Historian nodes using the Proficy Historian Administrator.
- Configure Proficy Historian Data Collectors, including the iFIX Collector, OPC Collector, and File Collector.
- Manage and configure archives.
- View collected data using the Excel Add-In Client.
- Configure the Proficy Historian OLE DB Provider.
- Configure the Calculation Collector and the Server-to-Server Collector.
- Design and build a Proficy Historian and RTIP security strategy that is tightly bound to Windows security.
- Use a variety of Proficy Historian Utilities and Operating System administrative options to troubleshoot.
- Use the Proficy Historian SDK to enhance a Proficy Historian application.
- Archive Alarms and Events using the Proficy Historian Alarm & Event Archiver.
- Create client displays using datalinks, charts, grids, form components and other analysis objects.
- Connect to and retrieve data from a variety of data sources.

Course: CBS400 - Proficy Process Systems Fundamentals

Course Duration: 3 Days

Course Fee: A\$ 1,800 ex GST



Course Description

The *Proficy Process Systems Fundamentals* course is designed to provide a good working knowledge of Proficy Process Systems. This course explores the solution architecture, features and configuration tools from the controller, through Data Acquisition and Management to Visualization. Valuable hands-on lab exercises are provided to guide students through the building and modification of the system and its constituent components.

Who Should Attend?

This course is designed for process, automation or instrumentation engineers and system integrators who will be developing, configuring and using applications on a fully integrated Proficy Process System.

Are There Any Prerequisites?

Participants should have a working knowledge of Windows operating systems. Control Systems experience and knowledge is an asset.

What Tasks Will Be Taught in This Class?

Upon completion of this Course, the student will be able to:

- Introduce the Proficy Process Systems solutions.
- Use the Engineering Workstation to configure Controllers & IO.
- Use the EWS to create a PPS project.
- Configure PPS Control Hardware.
- Program with EWS-Logic Developer.
- Work with PPS Function Blocks.
- Understand Ethernet Global Data (EGD) and the Global Namespace.
- Configure EWS-CIMPLICITY and/or EWS iFIX project essentials.
- Develop EWS-CIMPLICITY and/or EWS-iFIX visualization.
- Design PPS Controller and IO networks.
- Build Controller-based alarming.
- Develop Alarm displays for CIMPLICITY and iFIX.
- Work with EWS utilities.
- Build reusable code (User-defined function blocks - UDFBs).
- Collect and review archived data with Proficy Historian.
- Access system and configuration files with Proficy Change Management.
- Load and explore a sample project.



Course: CBS114 - Proficy Batch Execution Fundamentals

Course Duration: 4 Days

Course Fee: A\$ 4,000 ex GST



Course Description

The **Batch Execution Fundamentals** course is designed to provide a good working knowledge of the Proficy Batch Execution product. This course includes lab time for configuring and applying Batch Execution development tools to process applications. The student moves through the development of an application that uses many components of the software.

Who Should Attend?

This course is designed for process, automation or instrumentation engineers and system integrators who will be developing, configuring and using applications on a Proficy Batch Execution system.

Are There Any Prerequisites?

Participants should have a working knowledge of Windows operating systems. Completion of **iFIX Fundamentals** course is very helpful! Familiarity with relational databases and the ISA S88.01 standard is also helpful.

What Tasks Will Be Taught in This Class?

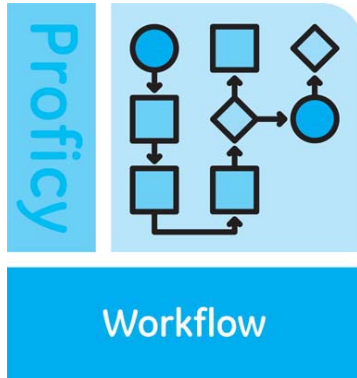
Upon completion of this Course, the student will be able to:

- Understand architecture communication between Batch Execution Server and Client nodes.
- Create new projects and configure the Batch Execution Server.
- Configure the Batch Execution Archiver and Publisher.
- Create an Equipment Configuration, including Area, Process Cells, Units, Equipment Phases and Control Modules.
- Create recipes using Sequential Function Charts (SFC) in the Recipe Editor.
- Create Class-based recipes.
- Use the Batch Execution Client to monitor batch production.
- Understand how to use Batch Execution VBIS and ActiveX objects to monitor batch production.

Course: CBS402 - Proficy Workflow Fundamentals

Course Duration: 3 Days

Course Fee: A\$ 1,500 ex GST



Course Description

Proficy Workflow Fundamentals is a three-day course that focuses on elementary configuration and development of Proficy Workflow applications. Participants will work with a sample system to connect Workflow to a variety of data source applications. Administration, authoring and reporting activities are also provided to present a complete and practical orientation to the Proficy Workflow solution.

Who should attend?

This course is aimed at those who will be designing developing and deploying Proficy Workflow in an industrial setting.

Are there any pre-requisites?

Suitable candidates will be experienced with Windows operating systems. Database knowledge will be an asset for reporting topics. Familiarity with at least one of the other Proficy solutions, such as Proficy iFIX, Proficy Historian, Proficy Portal or Proficy Plant Applications is also recommended.

What Topics will be covered in this class?

- Discuss the Proficy SOA architecture
- Navigate the Proficy Client
- Build Resource Data Models
- Setup Proficy SOA Data Communication Connectors
- Configure Displays and Design Forms
- Implement Proficy SOA Events
- Author Workflows and implement Workflow Schedules
- Retrieve data from the Proficy SOA Reporting database
- Perform SOA System Administration



Optional: Customer Onsite Training

On-Site Training STD Courses

Courses are available to be delivered on-site and utilise the same equipment, and address the same material as pre-scheduled courses.

Customer Specific / On-site Training

Details of course content and administrative arrangements need to be agreed before a booking can be finalised.

iOpen reserves the right to make arrangements for the instructor's travel/accommodation including the transport of equipment required for the course.

Onsite Training General

Bookings are subject to:

- Availability of resources – instructor and equipment
- Provision of at least six weeks in advance so that resources and preparations can be made
- Receipt of payment or purchase order from approved corporate accounts
- EFT/Credit Card facilities are available including VISA / MASTERCARD / BANKCARD

Venues and accommodation must meet minimum standards as defined by iOpen:

- Quiet and secure training environment
- Suitably sized Training room
- Tables and chairs
- Whiteboard and projection screen

Other requirements

- All students to have their own PC's
- Customer to confirm provision of food & refreshments

Please contact iOpen for pricing and more information

Pricing will include cost of travel and lodgings for instructor and transportation of equipment to site. Travel time at applicable normal hourly rates.



Training Registration Form*

Company : _____

Address : _____

Contact Name : _____
Email Address : _____
Phone/ Fax : _____ / _____

Course Number : _____

Participant name(s) : _____

Required Date/
Or Date Range : _____

Cancellation:

Please refer to “**Refund and Cancellation Policy**” in **Training Terms and Conditions** in following pages.

PAYMENT :

For account customers Purchase Order/Credit card (Visa, MasterCard or Bankcard) or EFT to our Bank Account.

If paying by cheque, please cross and make payable to “ iOpen Pty Ltd ”.

Please Email sales@iopen.com.au or support@iopen.com.au

**Or Alternatively FAX Training Registration Form with PO where applicable
To 02 4271 4668**

<p>Wollongong</p> <p>Ph: 61 2 4272 1899 Fax: 61 2 4271 4668</p>	<p>Sydney</p> <p>Ph: 61 2 9543 3611 Fax: 61 2 9543 3622</p>	<p>Melbourne</p> <p>Ph: 61 3 9882 8900 Fax: 61 3 9882 8799</p>
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TRAINING - Terms & Conditions

General

iOpen reserve the right to change course schedules, discontinue courses, modify course content, limit class size, and cancel courses.

Enrolments / Bookings

Standard Public Enrolment Courses

Enrolment can be made by forwarding the training application form with payment to your local iOpen Sales/Support Office.

Enrolments will be confirmed in writing prior to the course commencement date only after receipt of a completed training application form and payment. Payment is accepted in the form of a valid purchase order from approved Corporate Accounts, credit cards or cheque.

Bookings are subject to availability of resources, instructor, equipment and the enrolment of the minimum required attendees.

Pricing

Course fees are payable in advance and cover the cost of tuition, instructional manuals, course materials, the use of equipment and the cost of lunches/refreshments. All course fees are exclusive of GST. Prices are shown in Australian dollars and are subject to change without notice.

Payment

Course fees are payable in advance and cover the cost of tuition, instructional manuals, course materials, the use of equipment and the cost of lunches/refreshments. All course fees are exclusive of GST. Prices are shown in Australian dollars. Payment is constituted by either a valid Purchase Order form account customers or Credit card (Visa, MasterCard or Bankcard) or EFT to our bank account. If paying by cheque, please cross and make payable to "iOpen Pty Ltd".

Refund and Cancellation Policy

Requests for cancellations and transfers must be received in writing and acknowledged by iOpen. The conditions for refund of training fees are as follows:

Standard Public Enrolment Courses

- Full refund of course fees will be given for cancellations received up to six (6) working days prior to course commencement.
- The full course fee will be charged for cancellations received within five (5) working days prior to STD course commencement.
- Suitably qualified replacements are welcome provided they register prior to commencement of the first day of the course.
- Customers will receive a full refund of fees paid in advance should iOpen not proceed with course or fees can be allocated against any future courses.

Customer Specific / On-site Training

For cancellation or postponement of either on-site or customised courses iOpen must receive in writing at least ten-business days notice, otherwise 50% of quoted course fee will be invoiced.

Course Documentation

Published course descriptions are for general reference only.

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