

Proficiency HMI/SCADA iFIX Fundamentals

Course Description

The **Proficiency iFIX Fundamentals** course is designed to provide a good working knowledge of iFIX. All major features are covered, from project configuration to data acquisition and visualization. Valuable hands-on lab exercises are provided to guide students through the building and modification of an HMI/SCADA application from top to bottom.



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?

Participants should have a working knowledge of Windows operating systems. Control system exposure and experience is recommended.

What Tasks Will Be Taught in This Class?

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

- Understand communication between iFIX SCADA Servers and iFIX iClient nodes.
- Configure iFIX nodes using the System Configuration Utility.
- Configure I/O Drivers to communicate with iFIX.
- Create and modify standard Process Database tags.
- Create graphic screens (pictures) using a wide variety of object types and animations.
- Design and build a picture navigation strategy.
- Create basic scripts using Visual Basic for Applications (VBA).
- Configure alarming and create screens to monitor and acknowledge alarms.
- Use trending to monitor both real-time and historical data.
- Design and build a system-wide security strategy.
- Use a variety of iFIX Utilities and Operating System administrative options to troubleshoot project or system process faults.

Course Length

4 days

Suggested Class Size

10 students

Class Hours

8:00 am - 5:00 pm, daily



Course Agenda

(Schedule and content may vary.)

Day 1

Morning:

Introduction to iFIX

Study the basic features and architecture of iFIX software.

System Configuration Utility

Configure an iFIX node, including networking, tasks, and alarm services.

Afternoon:

I/O Drivers

Install, configure, and monitor I/O Drivers, especially v7 OPC Servers.

Introduction to Database Manager

Use the Database Manager to rapidly build a Process Database.

Day 2

Morning:

Digital Database Tags

Use the Database Manager to create Digital Input and Digital Output tags.

Analog Database Tags

Use the Database Manager to create Analog Input and Analog Output tags.

Afternoon:

Introduction To the Workspace

Begin with orientation to the iFIX Workspace, picture documents and development tools.

Graphic Objects

Begin building displays using links, shapes, dynamos and other graphic tools.

Day 3

Morning:

Data-Entry and Control

Create user interactive controls in displays.

Globals

Create global variables and tables.

Animations

Create visual cues and enrich information delivery by linking objects to real-time data.

Afternoon:

Scripting with VBA

Using Visual Basic for Applications to extend picture functionality.

Archiving Data

Archive process data using an Historian.

Picture Navigation

Create a picture navigation strategy.

Day 4

Morning:

Trending

Create pictures to monitor real-time and historical data.

Tag Groups

Using Tag groups for optimized development.

Alarming

Build displays to monitor alarm information.

Afternoon:

Troubleshooting

Use iFIX and Operating System utilities to troubleshoot application elements.

Security

Design and implement a security strategy.

