

HMI-SCADA iFIX Advanced

Course Description

The **HMI-SCADA iFIX Advanced** course concentrates on the skills and knowledge required to extend the core functionality of iFIX from GE Digital. In addition, there are a range of topics that discuss the integration of GE's iFIX applications with external systems such as historians, relational databases, office and reporting applications as well as other automation applications.



Who Should Attend?

This course is designed for developers responsible for building and implementing full-featured HMI-SCADA iFIX systems. These topics focus on integration and programming and will be beyond the needs of most casual users.

Are There Any Prerequisites?

Completion of HMI-SCADA iFIX Fundamentals is a prerequisite for taking this course. Prior exposure to programming (in any language) is of benefit as is prior exposure to relational databases and SQL.

What topics will be covered in this course?

- Integrate iFIX with OPC servers and Clients
- Advanced configuration with Database Blocks
- Integrate iFIX with GE's Historian
- Integrate iFIX with Relational Databases (RDBs)
- Use VisiconX to build graphical RDB tools for users
- Extend iFIX Alarm systems to RDBs and Historian
- Master Dynamo creation and maintenance
- Work with ActiveX components
- Develop schedules to automate workflows and processes
- Drive reports with iFIX
- Configure Server Fail-over and Redundancy
- Prepare iFIX for use with Terminal Server

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:

Review iFIX from GE Digital

Review the basic features and functions of GE's iFIX.

Review iFIX Architecture & Applications

Walk through the essentials of iFIX applications and the system architecture.

Introduction to OPC

Find out more about the OPC communication methods available to industrial control applications.

Afternoon:

OPC Clients

Learn more about the myriad ways of using OPC to connect iFIX sub-systems as data clients of other applications.

OPC Servers

Learn more about the myriad ways of using OPC to configure iFIX sub-systems as data servers.

Day 2

Morning:

Database Blocks Redux

Delve deeper into the Process Database and the blocks available to iFIX SCADA applications.

Integrate iFIX with Historian

Learn about the tools available for seamlessly integrating iFIX to GE's Historian, including tools for both providing and retrieving data.

Afternoon:

Integrate iFIX with Relational Databases

Find out how GE's iFIX can inter operate with relational databases for both read and write transactions.

Use iFIX Database Blocks with RDBs

Build the necessary infrastructure to communicate to RDBs at real-time via database blocks and services

Day 3

Morning:

Use the Workspace to access RDBs

Combine programmatic and graphical methods within the Workspace to interact with RDBs

Use VisiconX with RDBs

Build interactive displays to access RDBs using simple, graphical, wizard-based controls.

iFIX Alarm Archiving

Explore the different methods of archiving alarms to external systems for further analysis.

Afternoon:

Deploying ActiveX in iFIX

Create interactive user controls in displays.

Mastering Charts and Chart Groups

Extend trending functionality with extra developer know-how.

Dynamo Creation and Maintenance

Build easily maintained symbol libraries. Explore how to use them to maximize functionality while minimizing maintenance effort.

Day 4

Morning:

Schedules

Build schedule to automate routine tasks.

Elementary Reporting

Discover how to extend iFIX to meet your reporting needs.

Afternoon:

Enhanced Fail over

Walk through the iFIX Enhanced Failover features create high availability SCADA systems.

Supplemental Topics

Integrating Change Management
iFIX with Terminal Services

