



# HMI/SCADA iFIX Advanced

Instructor-led

## Topics

- Understand and implement OPC Server and Client Communications.
- Go Further with Database Blocks and Accelerate Database Creation
- Configure Server Enhanced Failover
- Integrate iFIX with Relational Databases (RDBs) in both Workspace and the PDB
- Use VisiconX to build graphical RDB tools for users
- Integrate iFIX with Proficy Historian and CRE-ATE Historical HMI Displays
- Extend iFIX Alarm systems to RDBs and Historian
- Master essential VBA Techniques
- Extend iFIX functionality with ActiveX and .NET
- Master Dynamo creation and maintenance
- Configure iFIX Schedules
- Implement Advanced Security Methods
- Look at thin Client Solutions such as Proficy Workspace and Remote Desktop Services

## Course description

*iFIX Advanced* concentrates on the skills and knowledge required to extend the core functionality of iFIX. In addition, there are a range of topics that discuss the integration of iFIX applications with external systems such as historians, relational databases, as well as other automation applications .

## Who should attend?

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

## Are there any pre-requisites?

Completion of 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 .

## Duration

32 hours

## Delivery

Instructor-led, classroom, virtual or onsite

## Part #

44A728312-251

## Suggested class size

10 Students

## Course Schedule

Click [here](#) for the latest details and schedule.





Session 1 - Architecture

Review iFIX Architecture & Applications

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

Session 2 - Communications and SCADA

Introduction to OPC

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

OPC Clients and Servers

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

iFIX OPC UA

Learn how iFIX communicates using OPC UA via the iFIX OPC UA Server and the IGS Driver.

Further Database Blocks

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

Database Creation

Learn mass creation techniques using Excel, to develop and deploy scalable Process Database.

Enhanced Failover

Configure iFIX for Enhanced Failover achieving a high availability SCADA systems.

Session 3 SQL

Integrate iFIX with Relational Databases

Find out how iFIX can interoperate with relational databases for both read and write transactions.

Use iFIX Database blocks with Relational Databases

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

Use Workspace to access RDBs

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

Use VisiconX to access RDBs

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

Session 4 iFIX with Historian

Integrate iFIX with Historian

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

Historical HMI Displays

Utilize Workspace objects to create a Historian HMI Display, animating objects from the Historian source and controlling display time with the Global Time Control.

iFIX Alarm Archiving

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

Session 5 Advanced Workspace

VBA Essentials

Understanding and implementing essential VBA techniques.

Deploying ActiveX and .NET in iFIX

Create interactive user controls in displays using ActiveX Controls and .NET Components.

Dynamo Creation and Maintenance

Build easily maintained symbol libraries.

Schedules

Build schedule to automate routine tasks.

Session 7 Security

Advanced Security

Integrating iFIX Security into a Windows Domain, and implementing eSignatures.

Session 8—Thin Clients

WebSpace and Remote Desktop Services

A walk through of WebSpace and using Remote Desktop Services.

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