

## iFIX Advanced Development

### Course Description

**iFIX Advanced Development** 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, 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 iFIX HMI/SCADA systems. These topics focus on integration and programming and will be beyond the needs of most casual users.

### Are There Any Prerequisites?

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.

### What topics will be covered in this course?

- Integrate iFIX with OPC servers and Clients
- Advanced configuration with Database Blocks
- Integrate iFIX with Proficy Historian
- Integrate iFIX with Relational Databases (RDBs)
- Use VisiconX to build graphical RDB tools for users
- Extend iFIX Alarm systems to RDBs and Proficy 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

Review the basic features and functions of 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 Proficy Historian

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

#### Afternoon:

##### Integrate iFIX with Relational Databases

Find out how 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

