

# HMI/SCADA iFIX Fundamentals

## Instructor-led

### Topics

- Understand communication between iFIX SCADA Servers and iClient nodes.
- Configure iFIX nodes using the System Configuration Utility.
- Configure I/O Drivers & OPC Servers to communicate with iFIX.
- Create and modify 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 a system-wide security strategy.
- Use a variety of iFIX Utilities and OS tools to troubleshoot project or system process faults.

### Course description

The *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 pre-requisites?

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

### Duration

32 hours

### Delivery

Instructor-led, classroom, virtual or onsite

### Part #

44A728312-154

### Suggested class size

10 Students

### Course Schedule

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





## Session 1

### Introduction to iFIX

Study the basic features and architecture of iFIX.

### System Configuration Utility

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

## Session 2

### I/O Drivers

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

### Introduction to the Database Manager

Use the Database Manager to rapidly build a Process Database.

## Session 3

### 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.

## Session 4

### 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.

## Session 5

### 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.

## Session 6

### Scripting with VBA

Using Visual Basic for Applications to extend picture functionality.

View Displays and Forms in both the Client and Vision.

### Archiving Data

Archive process data using an Historian.

### Picture Navigation

Create a picture navigation strategy .

## Session 7

### 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.

## Session 8

### Security

Design and implement a security strategy.

### Troubleshooting

Use iFIX and Operating System utilities to troubleshoot application elements.

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## Contact Information

GE Digital — Education Services

1 800 433 2682

Email: [training.ip@ge.com](mailto:training.ip@ge.com)

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## Contact Information

Americas: 1-855-YOUR1GE (1-855-968-7143)

[gedigital@ge.com](mailto:gedigital@ge.com)

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