

DIGITAL

# USING VBA WITH PROFICIY IFIX

Instructor-led Training

## Topics

- Understand how VBA functions inside of iFIX from GE Digital.
- Create VBA procedures (functions and sub-procedures).
- Understand and create (declare) variables of various data types (including arrays) and use them to make expressions.
- Use simple VBA code structures including decisions, loops, and collections.
- Use the VBA MsgBox and InputBox commands and create VBA Forms.
- Access iFIX data and use iFIX Subroutines and Methods
- Create and use Error Handlers in VBA and use VBA debugging tools.
- Access Relational Databases using ADO (ActiveX Data Object).
- Use functions within 3rd Party DLLs.
- Use VBA Automation to make References to other applications.

## Course Description

The Using VBA with HMI-SCADA iFIX course is designed for those who wish to acquire a basic knowledge of Visual Basic for Applications (VBA) within iFIX from GE Digital. This knowledge will allow the student to generate VBA based solutions for their special system requirements. The course begins with an introduction to VBA and why VBA is so important in today's applications. Lectures, coding examples, and labs are included in this course on the important aspects of VBA, as well as reference to Visual Basic syntax. This course will demonstrate to the student how to enhance runtime operation to solve special problems.

## Who should attend?

This course is principally designed for process, automation, or instrumentation engineers and system integrators who will be developing, configuring, and using applications created with Proficy iFIX

## Are there any pre-requisites?

Completion of the HMI-SCADA iFIX Fundamentals course is a must! Participants should have a working knowledge of Windows operating systems. Familiarity with some programming language would be helpful, but is not required.

## Time Commitment

32 hours

## Delivery

Instructor-led (distance learning or classroom)

## Part #

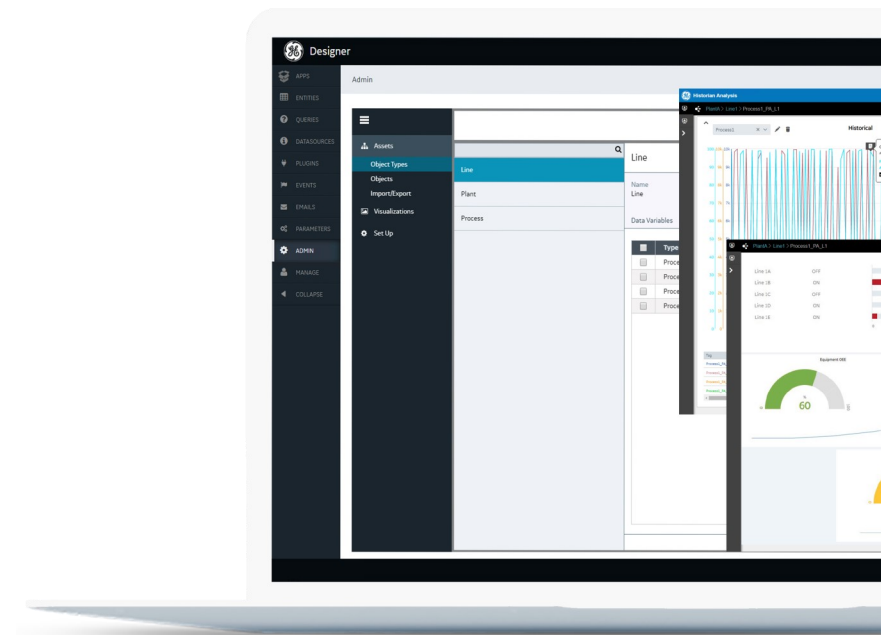
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## Level

Advanced

## Course Schedule

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





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## About GE Vernova

Building on over 130 years of experience and proven innovation, GE Vernova brings together and harnesses the collective power of GE's portfolio of energy businesses including Power, Wind, Electrification and Digital to focus on electrifying the world while simultaneously working to decarbonize it.

With focus, GE Vernova is accelerating the path to more reliable, affordable, and sustainable energy, while helping our customers power economies and deliver the electricity that is vital to health, safety, security, and improved quality of life.

[www.gevernova.com](http://www.gevernova.com)

## About GE Vernova's Digital Business

GE Vernova's Digital business is putting data to work to accelerate a new era of energy. We deliver the platforms and intelligent applications necessary to accelerate electrification and decarbonization across the energy ecosystem – from how power is created, how it is orchestrated, to how it is consumed. More than 20,000 customers around the globe use our software to help plan, predict, manage, and optimize operations today for a sustainable tomorrow.

[www.ge.com/digital](http://www.ge.com/digital)

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## Session 1

### VBA Overview

VBA terminology and an introduction to the VBE (Visual Basic Editor).

### VBA and iFIX

Details on how VBA functions within iFIX and how to use VBA Help.

### Procedures and Code Locations

Create procedures and use procedure arguments.

### iFIX procedures and methods

Using iFIX subroutines and methods and invoking code in iFIX applications.

## Session 2

### Variables

Understand and create (declare) variables of various data types.

### VBA Debugging Tools

Using VBA tools, like Watch Window and Locals Window, to debug code.

### Decision Code

Use If Then Else and other decision code.

## Session 3

### Expressions

Use functions and variable to make complex expressions.

### Functions

Use pre-built functions (Message Box and Input Box) and create new functions.

### Forms

Create and use Forms, including unloading and hiding Forms.

### VBA and iFIX

Accessing the iFIX Process Database.

## Session 4

### Looping Code and Arrays

Use for loops and Do loops. Create and populate array variables.

### Error Handlers

Use error handlers to create better code.

### Accessing Relational Databases

Access Relational Databases using ADO (ActiveX Data Object).

### Collection Object

Create and use collections to enhance an application.

## Session 5

### ActiveX

Using ActiveX with iFIX .

### APIs and DLLs

Accessing the Windows Applications Programming Interface and 3rd Party DLLs from within iFIX VBA

### VBA Automation

Use VBA Automation to make References to other applications.