

DIGITAL PROFICY iFIX ADVANCED

Instructor-led Training

Topics

- Review architecture and applications
- Perform project maintenance
- Understand OPC DA, UA and AE in iFIX
- Develop asset models
- Go further with database blocks
- Configure server enhanced failover
- Integrate iFIX with relational databases
- Use VisiconX to build graphical RDB tools for users
- Integrate iFIX with Proficy Historian
- Extend iFIX Alarm systems to RDBs and Proficy Historian
- Extend iFIX with ActiveX and .NET
- Master Dynamo creation and maintenance
- Configure iFIX schedules
- Implement advanced security methods
- Look at the iFIX thin client solution

Course Description

The Proficy iFIX Advanced course focuses on the skills and knowledge required to extend the core functionality of the HMI/SCADA iFIX solution. A range of topics that present the integration of the iFIX application with external systems such as historians, relational databases, and other automation applications.

Valuable hands-on lab exercises are provided to guide students through and introduction to the advanced features of the iFIX application. An experienced instructor is provided to guide the student using demonstrations.

Who should attend?

This course is designed for developers responsible for building and implementing full-featured iFIX systems. These topics focus on integration and programming and are 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.

Time Commitment

32 hours

Delivery

Instructor-led (distance learning or classroom)

Part

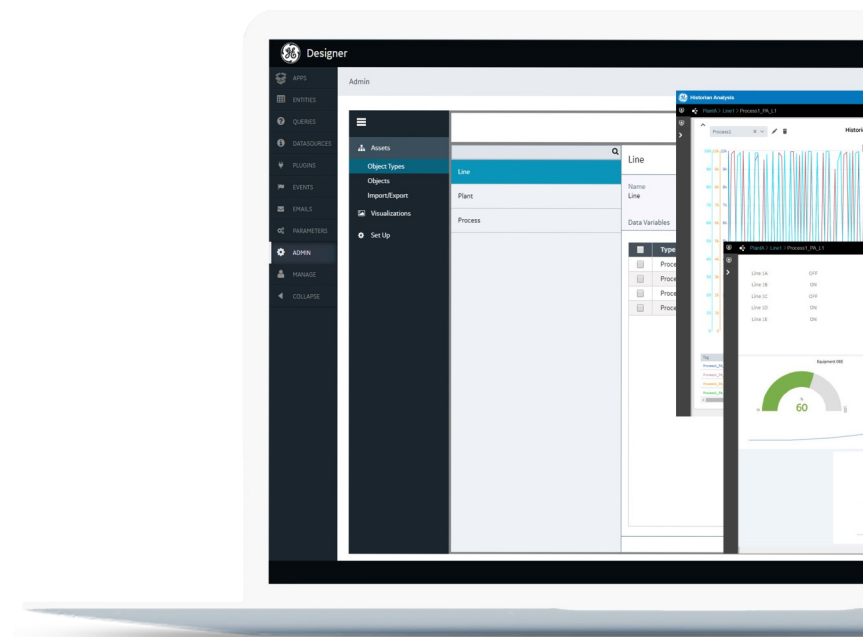
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Level

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.

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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.

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Session 1

Project Maintenance and Review: Review the iFIX Architecture and iFIX Applications. Understand the Backup/Restore Utility. Back up a project's files and folders. Restore a project from files and folders.

Introduction to OPC: Learn the history and purpose of OPC. Understand OPC terminology. Review the OPC interfaces found in iFIX.

iFIX OPC DA Clients: Identify iFIX OPC Clients. Configure the Workspace OPC Client and iFIX OPC DA Client Driver. Explore the IGS Driver OPC DA Protocol.

iFIX OPC Servers: Identify iFIX OPC Servers. Work with the iFIX OPCEDA OPC Server, OPCiFIX OPC Server and iFIXOPCAESrv OPC Server. Introduce the iFIX OPC UA Server.

Session 2

iFIX OPC UA: Review OPC UA interfaces. Configure the iFIX OPC UA I/O Client Driver. Connect to the iFIX OPC UA Server for Data and Alarms Understand the IGS OPC UA Client and Server.

Asset Model Development: Learn to configure templates and generate object types from IGS Sources. Explore how to develop Types with Substitution Parameters, configure PDB Tag properties in Variables and deploy Scalable Model Instances. Understand publishing model Instances and tags.

Session 1

Scaling Models and the PDB: Investigate the tools for mass creation of iFIX PDB tags and models. Export and Import the iFIX PDB in both Configuration Hub and Database Manager using Excel as the editor.

Further Database Blocks: Extend PDB chains with secondary blocks and build Program blocks. Learn how to add loadable blocks with the BTKCFG tool.

Session 3

Enhanced Failovers: Discuss and configure Enhanced Failover. Explore LAN and Historian iFIX Collector Redundancy. Work with Diagnostics – NSD Tags and SCADA Sync Monitor.

Integrate with RDB: Discuss relational databases and where and how they may be integrated with iFIX. Define and explain ODBC and SQL. Learn to configure a DSN and write simple SQL queries.

Use iFIX SQL Blocks with RDB: Configure the SCU for linking the PDB to an RDB. Add queries to the SQL Library table and prepare the SQL Error table. Build SQL Trigger and Data blocks for ODBC transactions.

Access RDBs in the Workspace: Review the mechanism for exchanging data between the Workspace and RDBs. Explore display and scripting requirements for data exchange. Use ADODB to interact with a MS SQL Database.

Session 4

VisiconX: Configure VisiconX Data controls and present RDB data sets using the VisiconX display controls, incorporating using Query Parameters.

Integrate iFIX with Proficy Historian: Collect iFIX Data and store in Proficy Historian, then present in Trends, Animations and Tables and VisiconX. Use the Global Time Controls.

iFIX Alarm Archiving: Log iFIX Alarms using the ODBC Alarm Service and the Historian AE Collector. Use VisiconX to retrieve and present Alarms.

ActiveX and .NET: Define ActiveX and .NET Components. Explore adding ActiveX controls and .NET Components to iFIX displays. Interact in an HMI using Active X controls and .NET Components.

Session 5

Dynamo Creation and Maintenance: Build Dynamos and Dynamo Sets. Develop complex Dynamos and create Master Dynamos. Work with tools for automated Dynamo update and maintenance.

Schedules: Create Schedule Documents. Automate routine Event-based and Time-based tasks.

Advanced Security: Review the iFIX Security Model and how to use Windows Accounts with iFIX. Understand Proficy Authentication with iFIX. Discuss eSignatures and the Security Synchronizer..

iFIX Thin Client Access: Investigate Config Hub, Workspace and WebHMI. Discuss Remote Desktop.