

Proficy* HMI/SCADA - iFIX

IMPORTANT PRODUCT INFORMATION

Version 5.5
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iFIX 5.5 New Features

New Charting Features for Enhanced Charts

In iFIX 5.5, some of the new charting features include:

- Support for multiple Y axes in the XY Chart and Line Multiline Chart. You can now enter up to 16 Y-Axis data sources. Multiple axes can be shown in the same graph, or in graphs stacked one on top of the other. Different plotting methods are supported for each data source.
- Support for a configurable time cursor style is available in Enhanced Charts. The Show Time Cursor check box on the General tab now has two associated radio buttons, As Table and As Tooltips, to pick the Time Cursor style.
- Support for a way to quickly and easily change various Enhanced Chart properties while in run mode without having to display the configuration dialog or the right-click menu. The General tab contains an Enable Quick Configure check box to support this property.
- Support for an Expandable option on the General tab of all Enhanced Charts.
- Support for a Thumbnail option on the Chart Style tab of all Enhanced Charts. When coupled with the Expandable property, this option allows you to display a chart in a thumbnail mode when contracted. When expanded, the displayed chart will not be in thumbnail optimized mode, but with user configured legend settings.
- Support for EGU Limits for Legend Column widths on the Chart Style tab, and on the Legend area of the Data Sources tab for Enhanced Charts.
- Support for many new automation properties and methods for Enhanced Charts.
- Inclusion of a new XY Chart Dynamo in the HistoricalLineChart.fds Dynamo Set for use in your pictures.

NOTE: Be aware that the Quick Dynamo Updater and Dynamo Updater Wizard do not support Dynamos containing Enhanced Charts at this point in time.

For more information on the options available for Enhanced Charts, refer to the following section in the ebooks: Creating Pictures > Developing Objects in Pictures > Pictures Dialog Boxes> Enhanced Chart Customization Dialog Box. For detailed information on the new properties and methods, refer to the "Updates to the iFIX Automation Reference" below.

New .NET Component Hosting

The .NET Component feature for iFIX allows you to host .NET components within your iFIX pictures. These .NET Components include pre-selected ones from the .NET Framework, samples from GE Intelligent Platforms, or custom ones that you develop on your own, or when you integrate a 3rd Party component.

You can access the .NET Component on the Insert menu in the iFIX WorkSpace.

Creating custom components requires proficiency in Microsoft® Visual Studio® 2010 and the .NET Framework. In addition, to develop your own .NET components, you must be proficient in programming with the .NET Framework. For iFIX scripting, you must have a working knowledge of the Visual Basic programming language.

For more information on the .NET Component, see the .NET Component Help, by clicking the Help button on the .NET Component Browser dialog box, which appears when inserting a control.

iFIX WebSpace Enhancements

The iFIX WebSpace now includes:

- Support for the iFIX WebSpace Server on Microsoft® Windows® 7 (64-bit), Service Pack 1, Professional, Enterprise, or Ultimate Edition.
- Support for the iFIX WebSpace Server on Microsoft® Windows® Server 2008 R2 (64-bit), Service Pack 1, Standard or Enterprise Edition.
- Support for iFIX WebSpace scalability across multiple servers. Includes a new Relay Server and Session Balancing features. Session balancing is a technique used to spread the work for the iFIX WebSpace Server across two or more dependent application servers. The Relay Server maintains and distributes the client connections across each of the dependent application servers.
- Support for the following web servers:
 - For Microsoft Internet Information Server (IIS) 5.1, 6.0, 7.0, or 7.5.
 - For Apache HTTP Server 2.2.10 or greater.
- Support for the following web browsers:
 - For Mozilla Firefox, the following versions were tested: 4.0, 5.0, 6.0, 7.0, and 8.0.
 - For Internet Explorer, the following versions were tested: 7.0, 8.0, and 9.0.

NOTE: On 64-bit clients, you can run 32-bit browsers only; 64-bit browsers are not supported.

- Support for a new Windows Desktop Client which allows you to view WorkSpace pictures from a desktop application using web services. It does not require Internet Explorer or Mozilla Firefox.
- Support for more client install options:
 - Directly from the browser when you browse to the iFIX WebSpace web page:
`http://iFIXWebSpaceServerName/iFIXWebSpace`, where *iFIXWebSpaceServerName* is the computer name or IP address of your iFIX WebSpace Server.
 - Directly from the browser by browsing to this page as well
`http://iFIXWebSpaceServerName/iFIXWebSpace/AllClients.html`. The AllClients.html page allows you to choose which clients you want to install, and in the case of Firefox or Internet Explorer, specify Loose or Embedded mode.
 - By using the `ifix-client.windows.exe` installer provided on the iFIX DVD (in the `Setup\Proficy\WebSpace\WebSpaceServer` subfolder), in the iFIX WebSpace install folder (in the `Web\Clients` path, which by default is the `C:\Program Files\Proficy\iFIX WebSpace\Web\Clients` folder), or on the iFIX WebSpace Server computer in the folder where you publish the iFIX WebSpace files to be hosted by your IIS or Apache server.
- Support for two modes in which you can run the Internet Explorer and Mozilla Firefox clients: Loose and Embedded mode. Loose mode displays the WorkSpace in an application window (providing you with more screen real estate), while the Embedded mode displays the WorkSpace directly in an Internet Explorer window (in a single window). Embedded mode is the default setting.
- Support for easier printer configuration in the iFIX WebSpace Administration application on the Client Access tab in the Host Options dialog box.

- Support for other user interface (UI) changes in the Host Options dialog box in the iFIX WebSpace Administration application:
 - The Minimum Available Virtual Memory field on the Session Startup tab is now a percentage field (it defaults to 10% instead of 64 MB, as it did in previous releases).
 - The Grace Period field on the Session Shutdown tab changed from a default value of 5 to 1 minute.
 - The Automatic Update Clients on the Client Access tab provides the capability to automatically update an iFIX WebSpace Desktop Client when a user connects to an iFIX WebSpace Server that is running a newer version.
 - There are also new fields for Relay Server configuration including Relay Server Name on the General tab, and Resource Limits for Maximum Sessions per Host on the Session Startup tab.
- Upgrade capability from previous versions. Be aware on the iFIX WebSpace Server, if you changed any of the default settings in the Host Options dialog box, you will need to re-enter these changes in the iFIX WebSpace Administration application after upgrading, since we uninstall this administration application and then re-install it.
- Availability of experimental clients for preview, experimentation, and evaluation include: iPad2, Microsoft Windows CE, Pocket PC, Linux, and Mac OS X. These clients are currently not supported by GE Intelligent Platforms, but are available for testing on non-production systems.

For information on using the iFIX WebSpace and these new features, refer to the "Viewing Pictures from a Web Session" e-book.

Networking Improvements

iFIX 5.5 includes enhanced scalability improvements for iFIX Networking.

Enhanced Failover Updates

Dynamic Connections and Enhanced Failover

In iFIX 5.5, there is no longer the need to enable Dynamic Connections when Enhanced Failover is enabled.

As failovers between redundant SCADA nodes occur, the client nodes that are communicating with the SCADA pair need to follow the new active SCADA. Previous to iFIX 5.5, the new active SCADA sent a data message to each client directing the client to follow. To send the message, the SCADA needed Dynamic Connections enabled. In iFIX 5.5, the client nodes regularly receive failover status from the SCADAs using existing Connection Manager messaging and there is no longer the need for Dynamic Connections.

If iFIX 5.5 will be installed on all the nodes in the network, there is no special configuration required. However, if a node is upgraded from a previous version of iFIX, the SCADA nodes will still have Dynamic Connections enabled. In this case, you will need to modify the SCU network settings on the SCADA nodes to disable Dynamic Connections.

Be aware that during the upgrade, as part of the updated Enhanced Failover functionality in 5.5, the existing SCADASync.ini file will be overwritten. This happens so that the SCADASync.ini will be

updated to include the new default value of 0 for the CheckClientConnectionsInterval parameter (for Dynamic Connections).

Special Configuration for Mixed Versions of Enhanced Failover

If iFIX 5.5 will not be installed on all the nodes in your network (and you will have older versions of iFIX on your network), special configuration is required for Enhanced Failover.

If there is an older client on the network from version 5.1 or earlier, that node does not have the changes necessary to follow the new active SCADA. Conversely, if there is an older SCADA pair on the network that has version 5.1 or earlier, those nodes do not have the changes necessary to supply the failover status to the client nodes. In both cases, the client nodes rely on the old method and need to be pulled by the SCADA. The following configuration changes are necessary on the SCADA nodes to achieve this:

1. In the Network Settings in the SCU, ensure that Dynamic Connections are enabled.
2. Edit the SCADASYNC.ini file in the LOCAL folder and find the ClientConnectionsCheckInterval variable and set it to something other than zero (anywhere from 10 to 600 seconds).

The ClientConnectionsCheckInterval variable indicates how often the SCADA node will communicate with the clients and pull them if necessary. When it is set to 0, client-pulling by SCADA is disabled. Since the older nodes require the SCADA to pull, set the ClientConnectionsCheckInterval variable to something other than 0. The default for this variable is 60 seconds. You can set it anywhere from 10 to 600 seconds.

Network Timers and Enhanced Failover

The new behavior for Enhanced Failover uses the Keep-Alive network timer. You should ensure that this timer is enabled in the SCU network settings on all nodes. You may notice that it sometimes takes several seconds longer for clients to follow a new active SCADA. Decreasing the Keep-Alive network timer setting will reduce the time it takes for a client to follow the new active SCADA.

Also, previous to these changes, there was a problem with how the Keep-Alive and Inactivity network timers were calculated internally. These timers ran three times faster than they should have. For example, a 300 second timer would actually run as a 100 second timer. This problem is corrected in iFIX 5.5. As such, if you previously adjusted the timers to work around the calculation issue, you should adjust them again to account for the timers now behaving correctly.

iFIX Notification Changes for Enhanced Failover

The Notification function has been enhanced in iFIX 5.5; the user interface is greatly improved. Instead of just a message box that displays information that a failover occurred, you can now display a table with a status of all the nodes included in your Enhanced Failover configuration. It also runs in the system tray, for easy and fast access.

In iFIX 5.5, iFIXNotification.exe now runs as two programs: iFIXNotificationFG.exe (for the foreground) and iFIXNotificationBG.exe (for the background). The iFIXNotificationBG.exe program runs in the background gathering information about the SCADA nodes. iFIXNotificationBG.exe notifies the foreground client, iFIXNotificationFG.exe, when changes occur in the failover status. The foreground client displays the iFIX Notification window when the change occurs, so that a user can see the issue and take immediate action if required. If any WorkSpace popups display that require immediate action, such as those for acknowledging alarms or for information on communication losses, the iFIX Notification window will be pushed behind them. The foreground client does this by

readjusting the Z ordering of the iFIX Notification window, allowing the iFIX Notification window not to block any WorkSpace pop-ups.

For information on iFIX Notification and other Enhanced Failover features, refer to the "Enhanced Failover" e-book.

New Proficy Workflow Trigger

Proficy Workflow Trigger is an add-on component which can be integrated into Proficy iFIX for use with Proficy Workflow 1.5 SP2, SIM2 or above. It allows users from iFIX to trigger schedules associated with workflows configured in any Proficy Workflow Server. Using this feature, you can view and trigger schedules (workflows) remotely. Some of the features include the ability to:

- **View Proficy Workflow Trigger Configuration:** The Proficy Workflow Trigger features a user-friendly configuration utility where you can configure users to connect to a Proficy Workflow Server. For each configured Workflow server, you can set the connection time-out to control network traffic and throttling time to ensure that the triggering start time overlaps the next scheduled instance.
- **View Workflow Schedules Configured on Workflow Server:** Using Workflow Trigger scripting functionality, you can get the list of all schedules that are configured in a particular workflow server. Use filters to get intended list of schedules. You can retrieve parameters of the schedules along with configuration details such as Datatype and DefaultValue.
- **Trigger Schedules:** The Proficy Workflow Trigger features scripting functionality that allows you to trigger a valid schedule associate with the workflow configured to a workflow server. You can trigger the schedule either using the default parameter values or by overriding the parameter values. The schedule must be associated with a workflow in order to trigger it from the iFIX WorkSpace and the schedule and workflow must be enabled in Proficy Workflow.
- **View the Status of the Current Workflow Instances:** Using the Workflow Trigger scripting functionality, you can view the status of each triggered schedule (workflow) instance. It also provides the state of the workflow instance and its start time.
- **List of Workflow Instances:** All the active instances of a workflow can be viewed using the Proficy Workflow Trigger scripting functionality. It also provides the state of each instance and its start time.

To install the Workflow Trigger, there is a new option on the iFIX install. The InstallFrontEnd.exe (the screen that appears when you insert the iFIX DVD in your DVD drive) includes a new link to Install Proficy Workflow Trigger.

Before installing Proficy Workflow Trigger from the iFIX DVD, you must install the Task List, version 1.5, SP2, SIM2 or higher. This is not included on the iFIX DVD. You must download the SIM from the support web site, or use your Proficy Workflow DVD to install. Refer to the steps below for details.

For more information, refer to the Workflow Trigger online help. You can access the Help from the Start menu in the WorkFlow Trigger program group.

Steps to Install Proficy Workflow Trigger

1. Install iFIX 5.5, and restart your computer as prompted.
2. Install the latest remastered Proficy Workflow Task List, version 1.5 SP2B (at a minimum).

NOTE: It is highly recommended that the Proficy Workflow Task List version be the same version as your Proficy SOA server - both should share the same version number. You should confirm these version numbers before continuing.

3. Download Proficy Workflow SP2 SIM2 or higher from the support site and install it.
4. Install the Workflow Trigger from the iFIX DVD.

Proficy Historian for SCADA 4.5 Support

IMPORTANT: Be aware that in order to use Proficy Historian for SCADA with iFIX, you need to manually start the Archiver through the Windows Service Control Panel. You should not install Proficy Historian on the same computer as Proficy Historian for SCADA.

iFIX 5.5 provides support for Proficy Historian for SCADA 4.5. Proficy Historian for SCADA supports a local Proficy Historian for SCADA Server, the iFIX Collector, Historian Client Tools, and the Historian OLE DB Driver.

Proficy Historian for SCADA is included on the iFIX DVD. For new installs, you can choose to install Proficy Historian for SCADA during the iFIX install. If an existing Proficy Historian install is found when you install iFIX, the install will exit after the iFIX install and Proficy Historian for SCADA will not be installed. Should you want to move to the newer Proficy Historian for SCADA, you need to:

1. Backup any existing archives.
2. Uninstall the existing version of Proficy Historian from the Windows Add or Remove Programs dialog box.
3. Install Proficy Historian for SCADA from the option on the iFIX DVD install screen.
4. Restart your computer. **It is very important not to forget this step, and to restart your computer.**
5. Restore your archives, if you backed up any in step 1 (only if you installed Proficy Historian for SCADA to a new path during the Historian install, instead of using the existing one).

NOTE: You can install the Proficy Historian Excel Add-in on a machine which has Proficy Historian for SCADA. However, you must install manually using the Proficy iFIX DVD. The install is located in the following folder on the iFIX DVD: Setup\Proficy\Historian45SCADA\Excel.

For more details on these steps and others, as well as other notable information, refer to the printed Important Upgrade and OS Support Notices guide that came with your iFIX DVD.

When using iFIX 5.5 with Historian 4.5, it is recommended that you use no more than 100,000 Historian tags per server, as was the limit for previous versions of Proficy Historian. If you have more than 100,000 tags configured, retrieval of tag lists, such as when you browse historical data, may result in unpredictable behavior and iFIX may stop responding. Based on your physical hardware and network infrastructure, be aware that returning 100K tags may take a long time as well.

For information on using Proficy Historian for SCADA with iFIX, refer to the "Using iFIX with Proficy Historian for SCADA" section in the Getting Started with iFIX e-book.

SQL Server 2008 R2 Support

iFIX 5.5 was tested with the SQL Server 2008 R2. This patch can now be installed along with iFIX.

SQL Server 2008 Native Client Driver Support

iFIX 5.5 provides support for the SQL Server 2008 Native Client Driver.

If you do not require any of the new functionality provided by the SQL Server 2008 Native Client driver you do not need to modify any existing client ADO applications that reference an OLEDB provider.

If you code your own ODBC calls using VBA (typically using an ADO or RDO call) as part of your iFIX solution (such as custom code inside a picture), and plan to use this new driver, make sure you refer to Microsoft's Help/guidance regarding the new features added to SQL Server 2005 and greater for date and time management.

In order to make use of new Data Types that were added after SQL Server 2005, the property of "DataTypeCompatibility = 80" needs to be used in the connection string. For example, if you want to upgrade an existing VisiconX application, you need to specify "DataTypeCompatibility = 80" to the connection string used with VisiconX.

Be aware that you can continue to use a client ADO application that references an OLEDB provider, as long as you not require any of the features of SQL Server 2005 or later.

DVD Main Menu and iFIX Installer Changes

The DVD Main menu, the screen that appears when you insert the iFIX DVD in your DVD drive (InstallFrontEnd.exe), includes new links to:

- Install Proficy Historian for SCADA 4.5
- Install the WorkFlow Trigger 1.0

The iFIX install also includes new custom options for installing the Water Solution Pack and the OEM Solutions Pack.

The "Install an I/O Driver version 6.x" option has been removed from the DVD main menu. If you continue to have a need for 6.x drivers, you can still install them from your Driver DVD, or obtain the install from the Driver Download page on the GlobalCare web site: <http://support.ge-ip.com>.

The iFIX installer no longer provides a custom option to install the FIX Desktop application, as it is not supported on 64-bit operating systems. Be aware that if you are upgrading, you will not need to reinstall FIX Desktop or Classic Historian. However, if you do need to install FIX Desktop on a non 64-bit system, you can access the installer by browsing the folders on the product install DVD. The FIX Desktop installer is included in the ..\Setup\Proficy\Legacy subfolder.

The Proficy Alarm Viewer is no longer included in the iFIX installer. If you are upgrading from a previous version of iFIX, your pictures with Proficy Alarm Viewer objects will continue to work. At the time of this release, however, the Proficy Alarm Viewer is not supported on a Windows 64-bit enabled operating system.

New Dynamos and Pictures from Vertical Packs Added

iFIX now includes many pictures and Dynamo Sets from some of the offerings previously supplied as

part of Water Solutions Pack and the OEM Solutions Pack. The components in these packs help programmers and engineers quickly and easily design new iFIX screens or update existing ones with the industry specific items targeted by each of the packs. To install these options from the iFIX installer, select the Custom install option.

For more information on the individual Dynamo Sets, click the Help button on the Dynamo configuration dialog box.

Water Solutions Pack Components

iFIX now includes the following Dynamos Sets from the Water Solutions Pack:

- Water_AdvancedPumps.fds
- Water_AdvancedValves.fds
- Water_Clarifiers.fds
- Water_Clarifiers3D.fds
- Water_Dewatering.fds
- Water_Equipment.fds
- Water_Headworks.fds
- Water_Headworks2.fds
- Water_Miscellaneous.fds
- Water_PID.fds

iFIX also includes the following pictures from the Water Solutions Pack that are used as pop-up pictures from the Water_AdvancedPumps, Water_AdvancedValves, and Water_PID dynamos:

- PIDFaceplate.grf
- AdvPumpFaceplate.grf
- AdvValveFaceplate.grf

OEM Solutions Pack Components

The OEM Solutions Pack for iFIX 5.x is a compilation of pre-configured out-of-the-box graphic objects and screens specifically tailored to machine-level HMI/SCADA applications. The components, along with a new toolbar and Organization for Machine Automation and Control (OMAC) screen templates, accelerate your iFIX application development and make it easy to duplicate across many devices and/or machines for consistent operations.

iFIX now includes the following Dynamos Sets from the OEM Solutions Pack:

- OEM_Datalink.fds
- OEM_OEE.fds

iFIX also includes the following pictures that were originally part of the OEM Solutions Pack:

- OEM_1024_768_Overview.grf
- OEM_1024_768_MachineSetup.grf
- OEM_1024_768_MachineState.grf
- OEM_1024_768_FaultStatus.grf
- OEM_1024_768_ProductSetup.grf
- OEM_1024_768_ProductStatus.grf

- OEM_800_600_Overview.grf
- OEM_800_600_MachineSetup.grf
- OEM_800_600_MachineState.grf
- OEM_800_600_FaultStatus.grf
- OEM_800_600_ProductSetup.grf
- OEM_800_600_ProductStatus.grf
- OEM_NumericPad.grf
- OEM_StateCommands.grf

Miscellaneous Other Components

Includes two pairs of buttons for data entry and export from Proficy Historian.

Updates to the DA, AA, and DO Blocks

Updates were made to the DA, AA, and DO blocks to improve their reliability for staying in sync with a PLC. The DA and AA blocks now contain two new fields on the Alarms tab: the "Continuous Output" and the "Suppress COMM Alarm" fields. The DO blocks contain a new field on the Basic tab, in the Output area: the "Write if Different" field.

The DA and AA blocks also support the following new database fields for these new features: A_CTK_PERSIST and F_CTK_PERSIST (for Continuous Output field), and A_COMM_SUPPRESS and F_COMM_SUPPRESS (for Suppress COMM Alarm field). The DO block supports the following fields: A_WRITEONDIFF and F_WRITEONDIFF (for the Write If Different field).

NOTE: When enabled, be aware that these features produce additional network communications with the PLCs. You should only enable them if you require this specific functionality and have sufficient network resources to allow for the additional communications required to remain in sync with the PLC.

Continuous Output Field

Selecting this option enables the blocks to attempt to write the contact(s) with every scan, even if the value being written is unchanged. If disabled, the AA or DA block only attempts to write to the defined contact tag when a value has changed and it needs to be written to the PLC. The write is a one-time attempt, so if it fails, the write will not be retried until the block needs to write a new value.

NOTE: There are four modes for the contacts - Acknowledge, Return, All Clear, and Never - that control when the contact is cleared. Since the contact mode of Never does not reset the contact, the Continuous Output option is not supported for this contact mode.

Suppress COMM Alarm

Selecting this option suppresses COMM alarms in the DA or AA block, and return the block to the same state as it was prior to a COMM alarm. COMM alarms identify communication failures that occur between the PLC and iFIX. With this option enabled, if the DA or AA block was an active alarm but acknowledged, and then goes into COMM alarm, it should return to that acknowledged state after communication is restored.

If the Suppress COMM Alarm is disabled, it is possible that acknowledgement of a COMM alarm could cause the ACK bit in the PLC to be written, and the original alarm condition, if already

acknowledged, could re-alarm.

Write if Different

Selecting this option allows you to prevent a write by the DO block if the value in the driver is the same as the value that is to be written. The DO block will read the bit from the driver and if different, execute the write. If the values are the same, no value is written on this scan.

Example: DA and AA blocks

In previous releases, the DA and AA blocks only attempted to write to the contact tag when a value had changed and it needed to be written to the PLC. The write was a one-shot attempt. So if it failed, the write would only occur when the contact tag needed to write a new value. In iFIX 5.5, with the "Continuous Output" option enabled, you can enable these contacts to write with every scan, even if the value being written is unchanged.

Additionally, the DA and AA blocks used to only handle only one alarm at a time. As a result, it was possible to encounter conditions where acknowledgement of a COMM alarm caused the ACK bit in the PLC to be written and/or the original alarm condition, if already acknowledged, to re-alarm. To handle this, the DA and AA blocks were modified to separate the original alarm condition from the COMM alarm. With the "Continuous Output" *and* "Suppress COMM Alarm" options selected, the DA and AA blocks should return to the same state, prior to the COMM alarm. For example, if prior to the COMM alarm, the block was an active alarm but already acknowledged, then that is the state it should return to after communication is restored. With the "Suppress COMM Alarm" field is enabled, an alarm condition caused by a COMM alarm should not cause the contact to be written with a new value. This implies to the PLC that the original alarm is being processed rather than the COMM alarm.

Example: DO blocks

For example, you can use the Write if Different field to prevent writes from the DO block from becoming a communication bottleneck between iFIX and the PLC. With the "Write if Different" field enabled, writes only occur if the value in the PLC is different from the value that is being written to. The DO block will read the bit from the driver and if different, execute the write. If the values are the same, then no value gets written on this scan, saving on processing time.

Alarm Summary Performance Updates

iFIX 5.5 includes many Alarm Summary performance updates. These include:

- The response time for alarm acknowledgement has been greatly improved.
- During the alarm acknowledgement in iFIX 5.5, other interactions can now occur while the acknowledgment is completing. In previous versions of iFIX, you had to wait until the alarm acknowledgment fully completed before performing any tasks.

Discover and Auto Configure (DAC) Update

iFIX 5.5 includes an upgrade of DAC from version 4.1 to 4.3. The DAC 4.3 product includes support for Windows 7 and 64-bit operating systems.

For more information, refer to the "Discover and Auto Configure" e-book in the online help table of contents.

PCM 6.5 Update

iFIX 5.5 supports the latest version of Proficy Change Management (PCM), version 6.5. PCM is not included on the iFIX DVD. Integrated PCM support has been available for use with iFIX since iFIX 4.0. For more information on using iFIX with Proficy Change Management, look up "Change Management" in the online Help index.

Microsoft Windows XP Embedded, Service Pack 3, Support

The 5.5 release of iFIX supports the Microsoft® Windows® XP Embedded operating system, with Service Pack 3. For SCADA Servers on Microsoft Windows XP Embedded, a maximum of 10 iClient connections are supported. For iClients on Microsoft Windows XP Embedded, up to a maximum of five SCADA node connections are supported.

The following devices were tested with iFIX on Windows XP Embedded:

- AXIOMTEK Touch Panel, GOT-5100T
- ads-tec Thin Client OCT-5012

VBA

Please be aware that while we have fully tested VBA as it relates to our product, Microsoft does not officially support running VBA in an Embedded environment. As such, in the circumstance that a defect is found with respect to VBA, we may not be able to formally address it on the Embedded operating system. That said, GE will provide reasonable efforts to work with our customers to resolve questions or issues encountered. As part of this effort, the troubleshooting phase will include the requirement that the customer stage the problem in a non-Windows XP Embedded environment to facilitate isolation and resolution. In this case, a final solution may require the customer to work around the specific issue by re-implementing or re-working various pieces of their VBA project implementation.

Terminal Server

iFIX does not support running a Terminal Server on the Windows XP Embedded operating system. However, Windows XP Embedded users can connect through RDP 6.0 to another computer running a Terminal Server node on a Microsoft Windows Server 2003 or Windows 2008 computer.

Toolkits

iFIX does not support running programs created with either the Easy Database Access (EDA) toolkit or System Extension Toolkit (STK) on the Windows XP Embedded operating system.

Enhanced Failover

iFIX does not support using the Enhanced Failover feature on the Windows XP Embedded operating system.

Picture Properties Now Available from Windows Explorer

iFIX 5.5 provides the ability to view picture properties directly from Windows Explorer. To view these picture properties, right-click the .grf file in Explorer to open the Properties dialog box. Then, click the Picture tab. From the Picture tab, you can view information such as the date modified, the author, the revision number, and the title. Please note that this tab will only appear for .grf and .fds files saved in iFIX5.5 and onwards. Pictures saved in iFIX5.1 and earlier will not display this tab.

Changes to User Preferences and Expression Builder Dialog Boxes

The format of the User Preferences dialog box in the iFIX WorkSpace changed from a horizontal tabular view to a vertical option list, from improved readability and navigation. The options are the named the same; the display is what differs.

Similarly, the format of the Expression Builder dialog box in the iFIX WorkSpace changed. There is a drop-down where you can select the tabs that display in the top right-corner of the tab list, and improved historical data filtering drop-down options. The options are the named the same; the display options are what differs.

For more information on the settings in the User Preferences dialog box, refer to the following section in the iFIX e-books: Understanding iFIX > Using the Proficy iFIX WorkSpace > WorkSpace Dialog Boxes > User Preferences Dialog Box.

Build Number Identifiers

In iFIX5.5, we use two build numbers to identify the software. The SCADA binaries are identified by the build number 8120, while the HMI binaries are identified by build number 10179. These numbers can be found in the WorkSpace about box. This information is important to know if you later choose to call technical support for any issues.

FIXUserPreferences.INI Changes

There is a new option in the FIXUserPreferences.INI file that allows you to control whether a warning prompt appears in run mode when closing a picture with changes.

You can disable this warning prompt with the new RuntimePictureChangeSaveWarning setting in the [AppRunPreferences] section of the FIXUserPreferences.ini file. Change the RuntimePictureChangeSaveWarning=1 setting (the default) to RuntimePictureChangeSaveWarning=0 in the FixUserPreferences.ini file to disable this warning message. By default, this message is enabled (set to 1).

The RuntimePictureChangeSaveWarning=0 setting is not available from the User Preferences dialog box in the iFIX WorkSpace. You can only access it from the FIXUserPreferences.INI file. This file is located in your in the LOCAL folder of your iFIX install folder.

For more information on this and other settings in the FIXUserPreferences.INI, refer to the following section in the iFIX e-books: Creating Pictures > Implementing Pictures in Your Process > Changing Picture Settings in the FixUserPreferences.ini File.

New Database Dynamos

Three new optional Database Dynamos were added to iFIX: the AR2, DR2, and ODO Database Dynamos. These Database Dynamos (also known as loadable blocks) can be added to iFIX using the Database Dynamo Configuration Utility (BTKCFG.exe). The BTKCFG.exe is located in the iFIX install folder. The default installation location is: C:\Program Files\Proficy\Proficy iFIX. After you add and save the new Database Dynamos, restart iFIX. You will now be able to add blocks of these types in the iFIX Database Manager.

AR2 and DR2 Database Dynamos

The AR2 and DR2 Database Dynamos are similar to the AR and DR blocks, however there is added functionality on the Alarms and Security tab for Alarm Extension Fields, Security Areas, and Event Messaging:

- The **Alarm Extension Fields** define two user-defined strings that you can display in the Alarm Summary object or an operator display.
- The **Security Areas** section allows you to restrict the currently logged on operator to be a member of at least one of the three listed security areas to write to the fields in the block (security must be enabled).
- The **Enable Event Messaging** option lets you enable or disable event messaging for the block. Event messaging is similar to alarming except that it does not require acknowledgment. Event messages are sent to the same alarm destinations as alarms for a given block but do not appear in the Alarm Summary object.

NOTE: Be careful when using event messaging in a chain with a time-based scan time. If the scan time is short, your alarm files (either disk or printed) can grow very large. We recommend enabling event messaging for exception-based chains, one shot chains, and stand-alone output blocks.

ODO Database Dynamo

The ODO Database Dynamos are used to send a brief pulse to a Digital Output block. A typical use would be for a motor starter. Key highlights of this block include that it:

- Is a secondary block.
- Generates a momentary digital output.
- Supports a configurable pulse length (in seconds).
- Supports the Invert Output feature.
- Does not support cold start initialization.
- Cannot be exception-based or part of a chain.
- Does not generate alarms.
- Does not reset the timer even if a user clicks several times before the pulse completes.

NOTE: In a networked iFIX system, all Database Dynamos must be installed and configured on all nodes. Be sure that after you add your new Database Dynamos, that you save the configuration. Otherwise, your new blocks will not get added to iFIX.

For more information about Database Dynamos and the iFIX Database Manager, refer to the Database Manager online help.

New Database Fields Added for Future Use

iFIX 5.5 includes the following new fields with each database block. Although you may see these fields when browsing the iFIX database in the Expression Builder, they are unavailable for use in iFIX 5.5 and solely provided for future use. No development should be done which makes use of any of these fields:

- A/F_WRITABLE
- A/F_PUBLISH
- A/F_ALMGEN
- A/F_ALMUPDATE
- A/F_ALMACK
- A/F_ALMDELETE
- A/F_ALMRESET
- A/F_ALMCHANGE

Updates to the iFIX Automation Reference

New Properties

The following new properties were added to the iFIX Automation Interface:

- **DSLegendEngUnitsColWidth Property** - Specifies the column width of the engineering units column in the legend for an Enhanced Chart (HistogramChart, LineChart, SPCBarChart, and XYChart objects).
- **EngUnits Property** - Specifies the Engineering Units for a given data source in run mode. This property only applies to data sources in Enhanced Charts (applies to GeneralDataSet and RealTimeSPCDataSet objects).
- **Expandable Property** - When Expandable is set to true in an Enhanced Chart, an Expand or Contract button displays in the upper right-hand corner of the chart when the cursor hovers over that area. Pressing the Expand button causes the chart to display in full screen, while pressing the Contract button causes the chart to reset to its original size and position. Applies to HistogramChart, LineChart, SPCBarChart, and XYChart objects.
- **MaxXAxisLabels Property** - Applies only to the Line/Multiline Enhanced Chart. This property allows you to specify the maximum number of labels (for the time and date) to be displayed on the X axis for this type of chart (LineChart object).
- **QuickConfigure Property** - When QuickConfigure is set to true for a Line/MultiLine or XY Enhanced Chart, this property allows you to change chart properties while in run mode without having to display the configuration dialog box or the right-click menu. Applies to LineChart and XYChart objects.
- **ShowXAxis Property** - Specifies the combination of Grid, Labels, and Title to display on the X axis. Applies to all Enhanced Charts (HistogramChart, LineChart, SPCBarChart, and XYChart objects).
- **ShowYAxis Property** - Specifies the combination of Grid, Labels, and Title to display on the Y axis. Applies to all Enhanced Charts (HistogramChart, LineChart, SPCBarChart, and XYChart objects).
- **StretchMode Property** - Describes how color is rendered in a Bitmap object.

- **Thumbnail Property** - When the Thumbnail property is set to True in an Enhanced Chart, the chart can be reduced in size and still show useful information. Applies to HistogramChart, LineChart, SPCBarChart, and XYChart objects.
- **TimeCursorStyle Property** - Specifies the type of time cursor to display in an Enhanced Chart in run mode, when the ShowTimeCursor property is set to true. Applies to HistogramChart, LineChart, SPCBarChart, and XYChart objects.
- **TruncateTitles Property** - When TruncateTitles is set to true in an Enhanced Chart, the chart title, chart sub-title and axes titles are all truncated to fit the allowable space, before any scaling is applied. Applies to HistogramChart, LineChart, SPCBarChart, and XYChart objects.
- **UseDefaultYAxisSettings Property** - When UseDefaultYAxisSettings is set to True for a data source (GeneralDataSource object) in an XY or LineChart, the following data source properties are configured according to the corresponding values set on the Axis tab in the Enhanced Chart Customization dialog box in the iFIX WorkSpace: ManualScaleControlY, AutoMinMaxPaddingY, ManualMinY, ManualMaxY, YAxisScaleControl, and UseDSLimits.
- **UseDSLimits Property** - If the UseDSLimits is set to True, then for a given data source in an Enhanced Chart, the high and low values for the Y axis are obtained from the High and Low Limit fields in the Data sub tab on the Data Sources tab in the Enhanced Chart Customization dialog box. If the UseDSLimits is set to False, then the high and low values for the Y axis are configured using the settings configured in the Y Axis panel of the Axis tab in the Enhanced Chart Customization dialog box. Applies to HistogramChart, LineChart, SPCBarChart, XYChart, and GeneralDataSet objects.
- **YAxesStyle Property** - The YAxesStyle property allows you to specify a style for the Y axis in a LineChart or XYChart object (LineChart or XYChart Enhanced Chart).
- **YAxisAlwaysVisible Property** - Specifies whether the Y axis for this data source is always visible in the Enhanced Chart (applies to GeneralDataSet objects in a LineChart or XYChart).
- **YAxisTitle Property** - Allows you to specify a Y axis title for the specified data source in an Enhanced Chart (applies to GeneralDataSet object in a LineChart or XYChart).

New Properties

The only new object in the iFIX Automation Interface in iFIX 5.5 is the following object:

- **GeneralDataSet Object** - The GeneralDataSet object can be a real-time or historical data set type.

More on the GeneralDataSet

In iFIX 5.5, the GeneralDataSet object replaces both the HistoricalDataSet (used by Historical Datalinks and animations, the Enhanced Line and XY Charts, and the HistoricalLineChart Dynamo) and the RealTimeDataSet (used by Enhanced Line and XY Charts) objects. The GeneralDataSet supports both real-time and historical data. Having a single data set for all data types allows for a more efficient way of rendering the data in the iFIX WorkSpace. It also provides the flexibility to configure a tag group without having to specify how the tag group has to be treated, as real-time or historical.

NOTE: The RealTimeSPCDataset still exists and has not been upgraded in iFIX 5.5.

When opening pictures from a previous version of iFIX (prior to iFIX 5.5), pictures that contain any older dataset objects are upgraded to use the new GeneralDataSet object. An informational message appears telling you that the file you are opening has been updated to the most recent format and that the original can be found in the backup directory.

Any scripts with the logic to check against the dataset's class name in order to determine the data type will now be replaced with the method IsHistoricalData. Each upgraded line in the script includes a

comment that starts with the words: **'** Upgraded **'**. This comment is provided so that you can easily search and find any upgraded areas in your VBA scripts. For example, an updated line would display like this:

```
'** Upgraded ** If ds.ClassName = "HistoricalDataSet" Then  
  If ds.IsHistoricalData = True Then
```

An upgraded dataset still retains its object name in order to keep the scripts compatible in the latest version of iFIX. For instance, a RealTimeDataSet named XYZ will still show up as XYZ in the system tree in the iFIX WorkSpace, but the object itself will become a GeneralDataSet with the additional properties. This name is still retained even if the data type is changed to a different type (for instance, from real-time to historical).

Also, for any custom scripts, if you previously used the classname property of a HistoricalDataSet or RealTimeDataSet, be sure to review these scripts as well.

iFIX 5.5 Release Notes

If You Are a First Time User...

Run in Demo Mode to Experiment with iFIX Projects First

If this is your first time using the Proficy HMI/SCADA - iFIX product, try using iFIX in Demo mode. In Demo mode, you can run iFIX applications for 2 hours. To start in Demo mode, start iFIX from command line using the /t parameter, like this:

```
Launch.exe /t
```

Where to Go First for More Information

Check out the Getting Started with iFIX guide first. The first few chapters of this guide contains detailed information about installing and upgrading iFIX, as well as supported configurations.

For a general overview of iFIX and the WorkSpace, refer to the Understanding iFIX electronic book.

For an overview of how to configure your iFIX system, refer to the Setting up the Environment electronic book.

How to Install Options Such as FIX Desktop and Classic Historian

If you want to install the FIX Desktop and Classic Historian options you need to browse the folders on the product install DVD. The FIX Desktop installer is included in the ..\Setup\Proficy\Legacy subfolder.

Licensing on Microsoft Common Controls Installed with iFIX

iFIX installs Microsoft common controls as part of the iFIX installation. These controls are used internally by iFIX. You cannot use them directly unless you have installed a product that provides the license to these controls, such as Microsoft Visual C++ or Visual Basic or have an Microsoft Office product installed. Otherwise, you can download the appropriate distribution package from Microsoft's Knowledge Base.

Installation and Keys

Installing as an Administrator

You must install iFIX with a local Windows user account with administrator rights. See your Windows manuals or online Help for information on creating this account.

Installing iFIX on a Different Computer than the Proficy Portal Server

If you are using both Proficy iFIX and Proficy Portal, it is recommended that your SCADA server is run on a separate machine than your Proficy Portal server. Running both a SCADA server and a Proficy Portal server on the same machine is not supported for Proficy Portal 2.5 and higher.

If you are running Proficy Portal and iFIX on the same machine, Tomcat.exe may crash when resetting the cache of an iFIX data source when the local node has been shut down. This issue does not occur when the SCADA server is remote.

Installing iFIX

You must use the USB key that is included with your iFIX software in order to access all the components of the iFIX software you purchased. Without a Proficy HMI/SCADA - iFIX key, you can run iFIX applications for 2 hours in Demo mode.

IMPORTANT: Do not remove the USB hardware key from your node while iFIX is running. If you do, you may need to restart iFIX. You may also damage the USB key if you remove it while iFIX is running. On Windows Vista, if you remove the key, key errors are logged to the Event Viewer instead of appearing as error messages.

IMPORTANT: If you want to use Proficy Historian for SCADA with iFIX, be sure to read the "Notes on Configuring Proficy Historian and iFIX" on the New Features tab first.

To install the product and the USB key:

1. Log in as a user with Administrator rights.

2. Shut down any Proficy applications or services that run on startup. For instance, if you have Proficy Historian for SCADA Collectors configured to start when you start Windows, use the Services window to shut them down.
3. Follow the steps on your screen. For more detailed information on installing your iFIX product, see the "Installing the iFIX Software" section in the Getting Started with iFIX guide.
4. After the install completes:
 - o If you have a new USB key, power off the computer and insert your USB key into the appropriate port.
 - o If you have an older key that you are updating, use the update file and follow the instructions from GE Intelligent Platforms to update your USB key.
5. Make sure that you restart your computer after you finish the install steps.
6. For 64-bit operating systems, if you install iFIX WebSpace, a boot message appears on restart. Be sure to select the operating system with the iFIX WebSpace Enabled, and then proceed with the restart. This message is expected behavior.

NOTE: At this time, GE Intelligent Platforms does not support USB keys connected through an external USB hub.

Recovering from an Improper USB Key Installation

To recover from an improper installation of a USB key:

1. Right-click the My Computer icon on your desktop and select Manage from the right-click menu.
2. Select Device manager from the System Tools tree.
3. Select Universal Serial Bus controllers from the right pane of the Computer Management dialog box.
4. Right-click USB Token. Choose Uninstall from the right-click menu.
5. Click OK to confirm uninstall.
6. Remove the USB key from your computer and reboot your computer.
7. Continue the correct installation using the procedure in the previous section.

NOTE: If you installed the USB key before installing iFIX, a dialog box requesting USB drivers appears. Cancel this dialog box, and then follow the steps above to uninstall the incorrectly installed USB key.

The iFIX USB Key and HASP UDP Broadcasting

The USB key used by iFIX Licensing may broadcast over UDP. iFIX and other products from GE Intelligent Platforms do not use this UDP broadcast.

You can stop the broadcast service and still use iFIX safely. To do this:

1. Shut down iFIX.
2. From the Start menu, select Run. The Run dialog box appears.
3. In the edit field, enter SERVICES.MSC. The Services window appears.
4. Locate the HASP License Manager in the list.
5. Double-click the HASP License Manager item. The HASP License Manager Properties dialog box appears.
6. In the Startup type drop-down, select Manual or Disabled.

7. Click Stop to stop the Service.

Installing iFIX with Terminal Services Enabled

IMPORTANT: Be aware that all Terminal Server client users should be a member of the Remote Desktop Users group.

iFIX Install Displays a Dialog Box with a Red X

If you attempt to install iFIX on a Terminal Server machine, and you do not have at least Power User (Administrator) privileges, an empty dialog box with a red 'X' might appear during the installation. This dialog box is the only indication that the installation failed.

To install iFIX in this scenario, follow these steps:

1. Log on to the Terminal Server as a member of the local machine's Admin group.
2. Insert the iFIX installation DVD.
3. Click Install iFIX in the iFIX installation program screen.
4. When the product install prompts you to choose an install type, select Complete.
5. Continue through the installation.
6. Restart Windows.

Windows Regional Settings Notes

How to Properly Disable Daylight Savings

If you want to disable daylight savings, you must synchronize the settings in the Control Panel with the WorkSpace. If you do not, the chart data may be off by one hour. Therefore, when you clear the Automatically adjust clock for daylight saving changes check box (located in the Time Zone tab of the Date/TimeProperties dialog box in the Control Panel), you must also clear the corresponding Adjust for Daylight Saving Time check box (located in the Chart/Time tab of the Chart Configuration dialog box).

Replacing Defective Keys

Defective keys cause iFIX to generate the following error message when it starts or when you start an application:

ERROR - MISSING SECURITY KEY OR FILE

The message may also indicate that the USB key is not securely installed. Be sure to check the connection before assuming your hardware key is defective. GE Intelligent Platforms replaces defective keys as quickly as possible.

To obtain a replacement USB key, call your local GE Intelligent Platforms technical support representative. The support representative will instruct you to FAX a completed copy of a Merchandise Return Authorization form. On receipt of the form, GE Intelligent Platforms can program a new USB key and send it to you overnight.

When you receive the USB key, you must return the old one along with a copy of the form sent with the new USB key. GE Intelligent Platforms invoices for defective USB keys that are not returned.

Upgrade Notes

Before You Upgrade or Reinstall...

If you are upgrading an iFIX computer with the Proficiency Change Management 5.6 Client installed, and want to continue running 5.6, install SIM 8 on the client computer before upgrading to iFIX 5.5. This will allow SIMs to be installed easily in the future.

Before you upgrade the iFIX product installed on your computer, make sure you shut down all Proficiency applications. It is important that no Proficiency products are running when you run the iFIX installation program.

IMPORTANT: If you are upgrading from a previous version of iFIX with failover enabled, and you want to use the Enhanced Failover feature in iFIX 5.0 or greater, there are a number of issues that you must be aware of. For detailed information and steps describing how to upgrade your failover system, see the "Enhanced Failover and Upgrading" section on the New Features tab.

Save copies of your existing .INI files with your application preferences and any custom files you create; customized files may be overwritten during an upgrade. As such, you may need to integrate your custom changes into the newer versions of these files after you upgrade.

Back up your existing iFIX projects. This includes the files in your LOCAL, Config Files Backup, PIC, and PDB folders.

It is also recommended that you create a backup copy of your Alarm ODBC configuration file(s).

Export a report of your system configuration (SCU), for reference. (In the SCU, on the File menu, click Report.)

Export a report of your security configuration, for reference. (In the Security Configuration application, on the File menu, click Export.)

If you have an application created by an Integration Toolkit, Database Dynamo Toolkit, or System Extension Toolkit from iFIX 2.5 or earlier, and you want to use this application with iFIX 5.5, do not uninstall iFIX. You must install iFIX 5.5 over your existing iFIX configuration. Your toolkit application will not run if you uninstall your previous version of iFIX.

Be sure to obtain any toolkit updates that you need, prior to installing iFIX. For instance, if you have previously installed the iFIX Productivity Pack for Allen Bradley, you must get the updated version prior to upgrading to iFIX 5.5.

CAUTION: If you choose to integrate Proficiency Historian for SCADA with iFIX, make sure that your

database tags have unique names. If both your iFIX and Historian databases have the same tag name, when you import an iFIX tag into the Historian database, the Historian tag will be overwritten with the tag of the same name from the iFIX database. For more information see [Using iFIX with Proficiency Historian and Troubleshooting Proficiency Historian and iFIX](#).

Upgrade Steps

To upgrade to the latest version of iFIX, perform the following steps:

1. Confirm that you backed up all the applicable files. Refer to the Before You Upgrade or Reinstall... section above for more details.
2. Shut down any Proficiency applications or services that are running. For instance, if you have Proficiency Historian Collectors configured to start when you start Windows, use the Services window to shut them down.
3. Run the iFIX product install. A message box appears asking you if you want to upgrade your system.
4. Click Yes to continue.
5. Follow the instructions on your screen.

Windows Upgrade Notes

For more information on Windows upgrade options and instructions, please refer to the Microsoft web site.

Pictures and the Upgrade

When you open a picture from a previous version of iFIX in the newer version, and save it, your picture is automatically updated to the newest version of iFIX.

***NOTE:** Be aware that pictures with Enhanced Charts containing tag groups will display a message on upgrade. However, pictures with Historical datalinks and Historical animations with tag groups will not.*

Due to the design of the VisiconX objects in iFIX 5.0 and greater, it is recommended that you manually replace your older VisiconX objects with the newer versions (if you are upgrading from a version of iFIX prior to iFIX 5.0).

The Database and the Upgrade

Be aware that when you upgrade to iFIX 5.5, the file size of your process database file will increase.

When you upgrade your database, the high and low engineering units (EGU) fields are converted from single precision to double precision floats. This means the degree of accuracy (the Epsilon value) changes from +/-0.00000012 to +/-0.000000000000000022. If you are using extreme ranges (very large

or very low values) for your EGU limits, you may possibly experience issues after an upgrade. To resolve these issues, open the Database Manager, export your database and then re-import it. This procedure resets the block values.

DDA Drivers and the Upgrade

If you are using DDA drivers, such as ROC, BR3 or MBR, you must reinstall them after upgrade. If the driver installation files are unavailable, you can use a copy of your existing FIX.INI file to compare to the one created after the upgrade. Then, copy the missing lines from your old FIX.INI file to your new FIX.INI file.

Custom *.fxg Files and the Upgrade

Be aware that if you use custom .fxg files with iFIX and you choose to upgrade, you will need to re-register these .fxg files after the iFIX upgrade. For more information on how to re-register the Workspace, refer to the "Adding Files to the System Tree" topic in the Mastering iFIX e-book.

Notes on Upgrading from iFIX 3.0 or Earlier, with Proficy Portal Installed

If you are running Proficy Portal and iFIX version 3.0 or earlier on the same machine, and you uninstall iFIX to upgrade, the Proficy Portal licensing software must be reinstalled. After you upgrade iFIX, run the Proficy Portal setup and select the Repair option (then follow the remaining installation instructions).

Notes on Upgrading from iFIX 2.5 or Earlier

If you are upgrading from iFIX 2.5 or earlier, you must purchase a new GE Intelligent Platforms key and remove your licensing files before you install the newest version of iFIX.

To update your USB key licensing files:

1. Double-click Add/Remove Programs in your Control Panel.
2. Select the Sentinel System Driver from the list of currently-installed programs, if listed, and then click Remove.
 - If the Sentinel System Driver is not listed, you may have implemented the Windows rollback feature to restore your registry to a previous state. This process does not remove files, and the Sentinel System Driver will not install over existing files.
 - The sentinel.sys file must be removed from your computer before you can proceed to install iFIX; this step does not ensure that the sentinel.sys file is removed from your computer. You must manually delete the sentinel.sys file if it remains on your computer.
3. Delete sentinel.sys, located in this path, if it exists on your computer: C:\WINNT\system32\drivers
4. Restart your computer.
5. Insert the iFIX Installation disk and install iFIX.

Issues With Older Keys

If you plan on running FIXSRV.EXE on a fast computer, be aware that there is an issue with the Aladdin HASP USB Key (M1 key) occasionally not being found. To fix this problem:

1. Click the Start button, and then click Run. The Run dialog box appears.
2. Enter regedit in the Open field.
3. Click OK. The Registry Editor appears.
4. Open the following key folder: HKEY_CLASSES_ROOT\iekey.
5. Create a new DWORD Value called *retry*.
6. Double-click the *retry* DWORD.
7. Enter a number greater than 180 (3 minutes) in the Value data field. This number represents the number of seconds to wait before retrying the key.
8. Select Decimal as the Base value type.
9. Click OK.

Restoring the Settings in the iFIX .INI Files

As you install iFIX, the product install program places a new version of the startup control file, FIX.INI, into your iFIX Local folder. The previous version of this file is copied to the Config Files Backup folder, along with the other configuration files.

If you configured Database Dynamos, also known as loadable blocks, or other custom programs to run as part of iFIX startup, you should compare the new FIX.INI file in the Local folder against the FIX.INI file stored in the Config Files Backup folder. If you find any changes between the two files, add the necessary lines to the FIX.INI stored in the Local path.

Additionally, you should restore other .INI files as necessary, using the same process.

Upgrading Database Dynamos

Database Dynamos, also known as loadable blocks, will require updates to work with iFIX 5.5. If you have old Database Dynamos on your system, the iFIX install program will detect them, and generate a warning message. This includes any Database Dynamos that you downloaded from the GE Intelligent Platforms web site, or installed from the Allen-Bradley Productivity Pack CD before you installed iFIX 5.5.

The GE Intelligent Platforms web site contains updated versions of the database dynamos supplied by GE Intelligent Platforms. To obtain updated version of other dynamos, contact the vendor of that dynamo. To obtain the current version of the Database Dynamo Toolkit, contact your local iFIX sales representative.

Upgrading Application Toolkit files

If you have an application created by an Integration Toolkit, Database Dynamo Toolkit, or System Extension Toolkit from iFIX 2.5 or earlier, and you want to use this application with iFIX 5.5, do not uninstall iFIX. You must install iFIX 5.5 over your existing iFIX configuration. After installing iFIX, rebuild your existing applications with the newest toolkit available to ensure compatibility with iFIX 5.5.

Using Terminal Server Clients with FIX32 and Pre-iFIX 5.5 SCADA Nodes

If you are upgrading from a previous iFIX release, take the following information for Terminal Services into consideration:

- All iClientTS users for iFIX that connect to a SCADA from a previous iFIX release are still required to have unique IP addresses.
- Previously released iFIX clients, such as iFIX 3.0, can take advantage of IP enhancements in current iFIX SCADAs, but you must provide a unique node name for the client, along with the unique IP address.

For more information on how to setup terminal services, look up "Terminal Server, setup steps, overview" in the online Help index.

Using Command Line Parameters to Start iFIX 5.5 on a Terminal Server After an Upgrade

If you start iFIX via the command line when using Terminal Services, be sure that you specify the node name with the /n option when you run the command. This rule is especially important if you upgraded from iFIX 3.0 or earlier and did not include the /n option with the command line settings.

In the iFIX 3.0 release, even though you were required to include the node name with the SCU file name on the command line, if you did not supply a node name, iFIX started with the same node name as the SCU file name. In iFIX 3.5 and higher, if you do not specify a node name along with the SCU name on the command line, iFIX defaults to the node name found in the Registry, which is the local node name specified when you installed iFIX on the Terminal Server computer. As a good practice, you should always include the node name parameter on the command line, rather than rely on these defaults.

If you do not provide the node name to iFIX via the command line with the /n parameter, alternatively, you can associate a user (or a default user) with a node name and SCU in the Startup Profile Manager. When using the Startup Profile Manager, you do not have to create a command line for each individual user. If there are no command line options or startup profiles to launch iFIX, you can enter the node name manually in the iFIX Startup dialog box.

Supporting VBA 6.5 After an Upgrade

In VBA 6.5, certain event parameter data types are interpreted differently than in earlier VBA version.

For instance, one of these data types is the VBA ErrObject. The VisiconX Data Control uses the ErrObject data type in two of its events.

If a picture created with an earlier version of iFIX contains a VisiconX Data Control, and also contains VBA 5.5 scripts added for the VisiconX Data Control's **ErrorOccurred** event or **ExecuteComplete** event, when the picture is opened in iFIX 5.5, it will generate a compiler error indicating an invalid character '_'.

This occurs because the ErrObject in VBA 5.5 is declared as type "VBA._ErrObject", and in VBA 6.5, it is declared simply as "ErrObject".

To correct the compiler problem and make the scripts function correctly, make the following changes to the event declarations:

iFIX 2.21 and earlier with VBA 5.5:

```
Private Sub vxData1_ErrorOccurred(pError As VBA._ErrObject)
End Sub
```

iFIX 5.5 with VBA 6.5:

```
Private Sub vxData1_ErrorOccurred(pError As ErrObject)
End Sub
```

iFIX 2.21 and earlier with VBA 5.5:

```
Private Sub vxData1_ExecuteComplete(pStatus As VBA._ErrObject, sQuery As String)
End Sub
```

iFIX 5.5 with VBA 6.35:

```
Private Sub vxData1_ExecuteComplete(pStatus As ErrObject, sQuery As String)
End Sub
```

***NOTE:** This problem may occur with other ActiveX controls and data types that GE Intelligent Platforms has not directly encountered. If you see problems, you should insert the control into a new picture, go to the VBA Editor, and examine the syntax used to declare events for the control in the new picture. Use the information provided in this section to edit the event declarations in the existing picture.*

Important Information for Windows Users

Before you can access remote OPC servers in iFIX, such as through the Discovery and Auto-Assembly Component (DAC) and the OPC Client driver, you must make sure that your firewall settings are correct (if you are using Windows XP, Windows Vista or Windows Server 2008), and that the DCOM settings for your operating system are correct. For detailed steps on how to do this, refer to the "Setting up for Remote OPC Server Access" chapter in the Getting Started with iFIX book.

Using Simple File Sharing

By default, Proficiency products are installed in the "..\Program Files\Proficiency" folder. Some versions of Windows do not allow you to access this folder remotely. As a result, you must clear the Using Simple File Sharing check box on the Folder Options dialog box.

To clear the Using simple file sharing check box in Windows XP SP2:

1. Open Windows Explorer.
2. On the Tools menu, click Folder Options. The Folder Options dialog box appears.
3. Select the View tab.
4. In the Advanced settings list, clear the Use simple file sharing check box.

Troubleshooting iFIX Product Issues After the Install

My-T-Soft Window Display Issues

If you install the My-T-Soft on screen keyboard for use with iFIX and experience window display issues, such as the Minimize button being hidden off-screen, you can use the MYTSOFT.ini file to adjust the settings of the application.

For example, when you have the WorkSpace in Ribbon view (the default), the caption bar with the Minimize icon is displayed off screen. It's there, but you can not view it. My-T-Soft allows you to customize where the Minimize button positions itself through the the MYTSOFT.ini file located in the iFIX install folder. By changing the ButtonOffsetY=0 setting to a positive number, you can move the button down a specified number of pixels, allowing the Minimize button and caption bar to show in full screen, when in ribbon view. After this value is configured, the My-T-Soft keyboard will always display in that specified offset position.

iFIX Does Not Start After an Upgrade

Be aware that when you install iFIX over an existing version, on a computer running Windows XP with an NTFS partitioned file system, the security privileges for the iFIX folder may allow Read and Execute permissions only. Limited permissions can cause various problems, such as the inability to open the STARTUP.LOG file or to write to the Alarm Area Database files.

To change the security permissions on this folder, follow these steps:

1. Open Windows Explorer by clicking the Start button, and pointing to Programs, Accessories, and then Windows Explorer.
2. Locate the folder to which you installed iFIX. The default location for this folder in earlier versions of iFIX is C:\Dynamics. (In the iFIX 5.5 release, the default location is C:\Program Files\Proficiency\Proficiency iFIX.)
3. Right-click the iFIX folder and select Properties from the right-click menu. The Properties dialog box appears.
4. Click the Security tab.
5. Select the Users group in the top half of the dialog box.

6. Select the Allow check box for the Modify, Read & Execute, List Folder Contents, Read, and Write permissions in the bottom half of the dialog box.
7. Click OK.

An Access Violation Appears in the Security Log

If you have node-based security enabled, an access violation message appears in the security log of the SCADA node the first time an iClient node browses the SCADA node's tags. This is expected.

Microsoft Office Message Box Appears When Starting iFIX

If you are running iFIX as a service and have Microsoft Office installed, an Office Install dialog box may appear when you start the WorkSpace. This dialog box prompts you to install Microsoft Office from the CD. If this issue occurs, update Microsoft Office with the latest Office service pack.

The Backup and Restore Utility Displays an Error

When you run the Backup and Restore utility, you cannot run any iFIX application that accesses the security files, such as the iFIX Security Synchronizer or Security Configuration tool. If you try to do so, iFIX displays an error message.

Full Backup Command Line Options and Startup Profiles

Be aware that if you perform a full backup using the /F /B=/P= command line options, the Startup Profiles category will not get backed up. If you use only the /F /B= options, the Startup Profiles category does get backed up.

Recommendations and Unsupported Items

Intel® Itanium® Processor

The Intel® Itanium® Processor is not supported for iFIX on 64-bit operating systems.

iFIX WebSpace Running on 64-bit Internet Explorer Browsers

iFIX does not support running the iFIX WebSpace client sessions on a 64-bit Internet Explorer browser; only 32-bit Internet Explorer browsers are supported.

Windows XP Embedded Restrictions

The iFIX WebSpace Server and Proficy Historian Server are not supported on the Windows XP Embedded operating system.

Only English Windows XP Embedded, with English regional settings, is supported with English iFIX; other language operating systems or regional settings for Windows XP Embedded are not supported.

The .NET Component is not supported on the Windows XP Embedded operating system.

Proficy Change Management is not supported on the Windows XP Embedded operating system.

Proficy Alarm Viewer

The Proficy Alarm Viewer is no longer installed as part of iFIX. If you are upgrading from a previous version of iFIX, your pictures with Proficy Alarm Viewer objects will continue to work. At the time of this release, however, the Proficy Alarm Viewer is not supported on a Windows 64-bit enabled operating system.

Classic/Legacy iFIX Historian

iFIX does not support running Classic/Legacy iFIX Historian on a Windows 64-bit enabled operating system. HTC, HTA, and HTD are not installed on a 64-bit operating system.

FIX Desktop

iFIX does not support running FIX Desktop on a Windows 64-bit enabled operating system.

Proficy Historian 3.5 and Earlier

Proficy Historian 3.5 and earlier are not supported when running with iFIX on a Windows 64-bit enabled operating system.

M1 License Keys

M1 License Keys are no longer supported. You must use an M4 key to run iFIX. Contact your iFIX sales representative for more information and to purchase an M4 key.

Speedstep Technology

SpeedStep® technology is not supported and must not be enabled.

IPv6

FIX does not make use of any IPv6 functionality.

If you disable IPv6 to use iFIX WebSpace, make sure that your local HOSTS file does not contain any IPv6 references. For example, remove the ":::1 localhost" lines from the HOSTS file, and replace them a line that references the IP address and the local host name (if necessary).

Silent and Quiet iFIX Installs

The Proficy Historian for SCADA and iFIX WebSpace included on the iFIX DVD are not supported for quiet or silent iFIX installs. In other words, you cannot include Proficy Historian for SCADA or the iFIX WebSpace option on a quiet or silent iFIX install. You can install these manually after iFIX installs quietly/silently.

Microsoft Windows 2000

Microsoft Windows 2000 is no longer a supported operating system for iFIX.

Microsoft Windows NT

Microsoft Windows NT is no longer a supported operating system for iFIX.

DDE

iFIX no longer supports Dynamic Data Exchange (DDE) and Network Dynamic Data Exchange (NetDDE) to exchange data between applications.

Historical Data Report

GE Intelligent Platforms no longer distributes Historical Data Report (HDR.exe) on the iFIX DVD. You can find this utility, however, on the Developer Download section of the Support web site: www.ge-ip.com/support.

NetBIOS

NetBIOS is no longer supported as a networking option. For networking support, use the TCP/IP option in iFIX.

iFIX Biometric Toolkit

The iFIX Biometric Toolkit is supported only if you have a solution that is compatible with your operating system.

Drivers and Operating System Compatibility

Be sure to check with the vendor of your driver software to confirm that your driver supports the operating system you want to run it on.

DAC and Operating System Compatibility

Be sure to check with the vendor of your driver software to confirm that your driver supports the operating system you want to run it on. If your driver is not supported on the specified operating system, you may experience issues with the Discover and Auto Configure (DAC) tool since it interfaces with the driver.

OPC and Running as a Service and on Some Operating Systems

If you want to run the OPC Client driver as a service, iFIX must also run as a service. Likewise, if you want to run iFIX as a service, the OPC Client driver must run as a service. You cannot run one as a service, without the other also running as a service.

If you want to run the OPC Client driver on a specified operating system, be sure to check with the vendor of your OPC Server software to confirm that your OPC Server supports the operating system you want to run it on.

It is recommended that you install the latest OPC Core Components from the Downloads section of the OPC Foundation web site: <http://www.opcfoundation.org>. The latest OPC Core components are designed for use on a 64-bit OS.

Advanced Historian

Advanced Historian is not supported with iFIX 2.6 and later. If you have Advanced Historian installed,

contact your local iFIX sales representative about upgrading to Proficy Historian.

The iDownTime Product

iFIX 5.5 does not support iDownTime. If you are upgrading, contact your local iFIX sales representative about upgrading to Proficy Plant Applications.

The P31 Driver

iFIX 5.5 does not include the P31 driver or WizSTK. The P31 driver was discontinued. Although upgraded iFIX systems may work with the P31 driver, iFIX 5.5 was not tested with this driver. The P31 driver and WizSTK is not supported on Windows Vista.

Crystal Reports 2008

The Print and View Report Experts are not supported for Crystal Reports 2008. However, they are supported for Crystal Reports 11.5 and earlier.

FIX32 and iFIX on the Same Computer

Although you cannot run iFIX and FIX 6.x or greater at the same time on a single computer, you **can** install them on the same computer.

NOTE: Because the USB key for iFIX is different from the FIX hardware key, remember to remove the iFIX hardware key and insert a FIX hardware key before installing or running FIX 6.x or greater.

When installing FIX 6.x or v7.0 on a computer that already has iFIX installed (or vice versa) do not select to use the current SCU configuration when prompted during the install. If you select to use the current SCU, both FIX and iFIX will launch with errors when you try to run either program after the install.

In addition, when you install iFIX on a FIX 6.x or FIX v7.0 node, be sure that you install iFIX without I/O drivers. This preserves your FIX 6.x or FIX v7.0 paths in the registry.

Backwards Portability of Alarm ODBC Configuration

Once you open or create an Alarm ODBC configuration file in iFIX 5.5, you cannot open that file on a node running iFIX 2.6 or earlier. Opening the file on a node running iFIX 2.6 or earlier will cause unpredictable results. It is recommended that you create a backup copy of your Alarm ODBC configuration file before installing the latest iFIX version.

Backwards Portability of Process Databases

To ensure a secure signing environment, GE Intelligent Platforms strongly discourages editing an iFIX 5.5 process database on an older-version node. If you open a 5.5 database on an older-version node, such as 2.6, you cannot add or modify individual tags, although it is possible to modify the database, such as to delete and duplicate tags. Do not do this.

Backwards Compatibility of 5.5 Pictures

The iFIX 5.5 pictures are not backwards compatible in earlier versions of iFIX, such as iFIX 4.0, 3.5, 3.0, or 2.5. If you try to open an iFIX 5.5 picture in an earlier version of the Proficy iFIX WorkSpace, an error message appears stating that you need to upgrade your software to the newer release, and the file does not load. If you use multiple versions of iFIX, store your pictures locally or use a separate shared pictures path for each version of iFIX.

OPC Servers that Require an Access Path

The Proficy iFIX WorkSpace does not support OPC servers that require an Access Path, such as RSLinx. To use an OPC Server like RSLinx with iFIX, configure the server so that it does not require a value for the access path. In order to do this with RSLinx, use the following syntax: [topic]item.

Mission Control's Datascope Screen with 7.x Drivers

The Datascope screen in Mission Control does not work with version 7.x drivers. If you select a version 7.x driver in Mission Control, you cannot use the Datascope button.

iFIX Screen Saver with Terminal Services on Windows Server 2003

GE Intelligent Platforms recommends that you do not configure the iFIX Screen Saver on Windows Server 2003 computers that use Terminal Services. Microsoft disabled screen savers for Terminal Server sessions on Windows® Server 2003. As such, the iFIX Screen Saver does not work on Terminal Server clients for this operating system.

Older Versions of the iFIX Productivity Pack for Allen Bradley

If you have previously installed the iFIX Productivity Pack for Allen Bradley with iFIX 3.5 and earlier, you must get the updated version prior to upgrading to iFIX 5.5. The productivity pack includes Database Dynamos that have been upgraded to be compatible with iFIX 5.5 and higher.

Using the Virtual Keyboard to Enter Large Amounts of Data

The virtual keyboard is designed for password and data entry. Avoid using this virtual keyboard for entering large amounts of text in Windows, as unexpected behavior may result. Certain combinations of keystrokes may cause the virtual keyboard to display incorrect characters. The virtual keyboard should behave as expected if you restrict its use to entering passwords and other data entry.

Using iFIX Objects in Other Applications

iFIX ships with several objects that are for internal use only. Please refrain from using these objects in external applications. Some examples of these objects are:

- iFIX Alarm Summary Control
- iFIX Color Button Control
- iFIX Expression Editor Control
- iFIX WorkSpace Expression Editor

Modifying the ExpertGlobal.fgx or ExpertGlobals2.fgx

It is strongly recommended that you do not modify ExpertGlobal.fgx or ExpertGlobals2.fgx. If you do modify either of these files, you may experience problems installing a subsequent SIM. If the modified ExpertGlobal.fgx or ExpertGlobals2.fgx file has a newer date than the one in the SIM, the SIM installation will fail. You will either need to remove the modified file or rename it to successfully install a SIM.

Instead of modifying the file, you can copy any of the experts from this file and incorporate them into your own custom toolbar.

Data Bound Controls

Do not use Visual Basic Data Bound controls with iFIX. These controls are not supported by VBA.

Quit Method's SaveChanges Parameter

The SaveChanges parameter for the Quit method is not supported at this time. Regardless of the parameter you enter, you are prompted whether or not you want the option to save changes. If you select Yes, you are prompted to switch to the Configure environment to save changes. If you select No, the WorkSpace closes without saving changes.

Find and Replace Object Outside of the WorkSpace

The Find and Replace object is not accessible from clients that reside in a process outside the WorkSpace. Any programs you create using Visual Basic will not support the Find and Replace feature.

VisiconX and Large Databases

Caution is advised when using VisiconX and large databases. VisiconX controls do not perform well with really large databases.

Microsoft Windows Related Issues

Updating Root Certificates

If you are unable to run My-T-Soft, install the update for the root certificates. For more information and for the update, see Microsoft knowledge base article KB931125.

Improper Behavior of Shared PIC Folders in Microsoft Windows Vista

If you experience issues in the iFIX WorkSpace when working with pictures from a shared PIC folder, install Microsoft Hotfix KB935366. This Hotfix is available as part of Windows Vista Service Pack 1, and should resolve any problems with the shared files. Contact Microsoft support for more information.

Running iFIX as a Service with a Background Schedule in Microsoft Windows Vista

In Windows Vista, if you run iFIX as a service and have a schedule running in the background that runs on a data change event, you may experience undesired results. As a workaround, in the iFIX WorkSpace, select User Preferences. In the User Preferences dialog box, on the General tab, clear the "Fire DataChange Event on Startup" check box. Clearing this check box should resolve your issues.

Microsoft Application Leak in Windows XP and Windows Server 2003

If you are using Windows XP or Windows Server 2003, you may experience a GDI object leak on systems that are not periodically restarted. This causes certain problems "painting" parts of the WorkSpace display, and often leaves the WorkSpace black. This issue has been identified by Microsoft, described in MS Knowledge Base article Q319740, and resolved with Service Pack 1 in

Windows XP.

If this GDI leak is seriously degrading your system performance, install Service Pack 1 for Windows XP, if no other service packs are installed. As a workaround, you can turn off the user interface theming in Windows. For users with Windows Server 2003 (with or without SP1) or Windows XP SP2 with theming enabled, use the workaround. Follow these steps:

1. Click the Start button, point to Settings, and then Control Panel.
2. Select Appearance and Themes.
3. Click Display. The Display Properties dialog box appears.
4. Select Windows Classic in the Theme list on the Themes tab.
5. Click Apply.
6. Click OK.

For related information, refer to the Microsoft support site at <http://support.microsoft.com/default.aspx?scid=kb;en-us;Q319740>.

Incorrect Icons Appear in Start Menu or Desktop Shortcuts

Windows saves a cached copy of all icons. If the icon cache becomes corrupt, incorrect icons may appear.

To fix this issue, display hidden files in Explorer, delete the icon cache file, and restart Windows. This action restores the icon cache.

In Windows XP or Windows Server 2003, the icon cache file, Iconcache.db, appears in this folder: C:\Documents and Settings\Your User Name\Local Settings\Application Data on your local computer.

Getting More Information on How Help Works in Windows XP

When you open the Using Help option from the Help menu in an iFIX application, such as the Workspace, SCU, or Database Manager, in Windows XP for any language, the Dialog Box Help topic appears instead of the Using Help topic. This is a documented bug in Windows XP. For more information, refer to the Microsoft knowledge base article at: <http://support.microsoft.com/default.aspx?scid=kb;en-us;317972>.

iFIX WorkSpace Related Issues

The OPC Client Driver Experiences Issues Connecting to a Remote OPC Server

If you use the OPC Client driver to communicate with a remote OPC server from the Proficy iFIX WorkSpace, the following issues can occur:

- The WorkSpace may stop responding. After performing a mode switch, a message box appears stating: "network transaction in progress."

- The WorkSpace may not shut down after exiting.

As a workaround, instead of using the OPC Client driver, use the Data Server Installer program to add the remote OPC server to your iFIX node. This utility, located in your iFIX install folder directory, lets you add, modify, and remove OPC servers from the list of data servers available to iFIX. Specify the name of the machine where the remote server resides in the Machine Name field.

Print to File Option Not Working Properly For Pictures or Schedules

From the iFIX WorkSpace, when you open a picture or schedule and then click Print, the Print dialog box provides a "Print to File" option. If you select this check box, the file is not created. A dialog box does not appear requesting a file name. And, the file is sent to the printer, even though you selected the Print to File check box. There is no known workaround for this issue.

Changing the System Year to 2038 Causes Unpredictable Behavior

If you change the system year to 2038, the iFIX WorkSpace may behave unpredictably and shutdown. This is a C programming language Y2K issue and is caused by the standard time library in C. There is no known workaround for this issue.

The Color Properties of an OLE Control Do Not Display Properly

If you are running iFIX on a Windows XP computer with XP themes enabled, and you insert an OLE control into your picture and attempt to change any of its color properties using the Property Window, the Palette tab for color selection may not display any colors. This is an issue with Microsoft's Common Control Library.

Often, controls provide alternative methods for setting color properties. If you need to view the color palette through the Property Window, switch to Windows Classic view, which will allow you to view the color palette through the Property Window.

A Selection Cannot be Made in the Expression Builder

When you are running iFIX on some Windows XP systems, you cannot drag the left mouse button to select a portion of an expression in the Expression Builder. If you want to select text in the Expression Builder, click Shift and the appropriate arrow key.

Second Tab of the VisiconX Data Control is Not Properly Formatted

In Windows XP, the frame labels on the second tab of the VisiconX Data Control sometimes do not appear properly formatted. This behavior occurs because Visual Basic does not support the Windows

XP themes or visual styles.

If you use themes and visual styles other than the ones provided with the Windows Classic theme, such as the Windows XP theme, you will encounter unexpected display behavior in frame controls like the embedded ones used on the second tab of the VisiconX tab. For more information, see the Microsoft Knowledge Base Article - 309366.

Clicking the Calendar Control Shuts Down the WorkSpace

If you double-click a calendar control in the Proficy iFIX WorkSpace configure mode, or if you single-click it in WorkSpace run mode, it may shut down the WorkSpace. The Microsoft Calendar control causes similar issues in other Microsoft Office products. This is a known Microsoft issue.

A Picture or Dynamo Appears Distorted

It is possible that a picture or Dynamo set created at one resolution will appear distorted when viewed on a monitor with a different resolution. This may occur because the default display properties of Windows are causing the autoscale function of iFIX to function improperly, or are making a VBA form that prevents the picture or Dynamo from updating properly.

To correct this problem, in Windows XP:

1. Open the Windows XP Control Panel.
2. Double-click the Display icon.
3. Click the Appearances tab.
4. Click the Effects button.
5. Clear the Show window contents while dragging check box.

To correct this problem, in Windows Vista or Windows 2008:

1. Open the Windows Control Panel.
2. Click the Appearance and Personalization link.
3. In the Personalization category, click the Customize Colors link.
4. Click the "Open classic appearance properties for more color options" link. The Appearance Settings dialog box appears.
5. Click the Effects button.
6. Clear the Show window contents while dragging check box.

To correct this problem, in Windows Server 2003:

1. Open the Windows Server 2003 Control Panel.
2. Double-click the Display icon.
3. Click the Appearances tab.
4. Click the Effects button.
5. Clear the Show window contents while dragging check box.

NOTE: The TrueColor graphic display option also distorts some Dynamos. We recommend that you avoid using it.

MHPGEN: File does not open

If the last line of the file contains something other than <RET>, then MHPGEN reports that it cannot open the file. The workaround for this issue is to make sure <RET> is the last line in the tag file and message.

Guidelines for Using the iFIX Cross Reference Tool

Avoid Missing References in your Pictures

When you use the Cross Reference Tool Report Wizard to generate a report on a .GRF file that has a missing reference, an error message appears in the background, and the Cross Reference Tool report generation is halted.

The report generation remains halted until you click on the Cross Reference Tool. This causes the following message to appear: "An action cannot be completed because a component (Proficy iFIX WorkSpace (Configure)) is not responding. Choose "Switch To" to activate the component and correct the problem."

Use the Switch To button and acknowledge the several dialog boxes that appear. To avoid this problem altogether, check for missing references before running the report wizard.

Close All Dialog Boxes in the WorkSpace Before Running the Report Wizard

If you try use the Cross Reference Tool Report Wizard when certain dialog boxes are open in the WorkSpace, such as the User Preferences or the Find and Replace dialog boxes, an error may occur.

For instance, the following message may display: "The Cross Reference application could not export VBA script files. Your ExpertGlobal may be corrupted. Cross Reference is exiting."

Click OK to acknowledge this message and allow the Cross Reference application to exit. To prevent this message from occurring in the first place, close all dialog boxes in the WorkSpace before you run the Report Wizard in the Cross Reference Tool.

Avoid Running the Report Wizard with Read-Only Files

When you use the Cross Reference Tool Report Wizard to generate a report, the following message appears if one or more of the files is read-only: "An action cannot be completed because a component (Proficy iFIX WorkSpace (Configure)) is not responding. Choose "Switch To" to activate the component and correct the problem."

When you switch to the WorkSpace, this error appears: "Error number -2147211306. The file you are attempting to open has been renamed outside the WorkSpace. Please make sure you have write access to the file and try again."

Once you clear these messages, run the report again. Additionally, You can also use either of these techniques to resolve this issue:

Remove the read-only attribute – Identify all files being searched for that have a read-only attribute. Remove the read-only attribute.

Upgrade the file – Upgrade the file if you choose to leave the read-only attribute. To upgrade the file, remove the read-only attribute on the file, open the file in the WorkSpace configuration mode, and close the file. The file is automatically upgraded. You then have to add the read-only attribute to the file.

Working with Other Proficy Products

Proficy Alarm Viewer Control Displays an Error in Run Mode

After you install iFIX 5.5, the first time you insert the Proficy Alarm Viewer control into a picture, add a connection, and switch to run mode, you may receive connection errors. To remedy this, from the Services window (Control Panel > Administration Tools > Services), stop the AEClientHostViewer service, and then restart it.

Using Proficy Plant Applications with iFIX

In Windows XP, if you insert a Plant Applications Client Control into the iFIX WorkSpace as an OLE object, the radio buttons may not appear formatted properly in the control. This behavior occurs because Visual Basic does not support the Windows XP themes or visual styles. For more information, see the Microsoft Knowledge Base Article - 309366.

Using Proficy Historian with iFIX

Security Considerations

If security is enabled for Proficy Historian, and you do not have the necessary security group memberships, you will not be able to use Mission Control to start or stop Historian collectors. To give the Proficy iFIX WorkSpace and Mission Control access to the Historian collectors, configure a user name and password in one of the following Historian dialog boxes:

- **Configure the Historian Server(s) – Access** this dialog box by clicking **Configure Historian Server** on the Historian toolbar.
- **Historian Administrator Login – Access** this dialog box by opening the **Historian Administrator** and clicking **Main**.

Be sure to read the Proficy Historian IPI (Important Product Information) document for tips about using the product in general.

Regional Settings Considerations

The iFIX Scheduler and charts can use Historian data that supports Daylight Savings Time. However, before allowing automatic Daylight Saving Time to be used in a production environment, you should test your application under each of the following scenarios for proper behavior:

- While in Standard Time.
- While in Daylight Time.
- During the transition from Standard Time to Daylight Time.
- During the transition from Daylight Time to Standard Time.

Using Proficy Real-Time Information Portal with iFIX

Be sure to read the Proficy Portal IPI (Important Product Information) document for tips about using the product in general.

Notes on Starting iFIX when Using the Remote Interface (RIF) Server

If you configure an OPC connector to Intellution.opceda or Intellution.OpciFix (either locally or remotely through RIF), you may be unable to start iFIX. Instead, you will receive an iFIX internal error.

To work around this:

- If the OPC connector is local, stop the Proficy Portal server, start iFIX, and start the Proficy Portal server.
- If the OPC connector is remote, open the RIF Configurator and connect to the machine that is hosting the OPC connector. Next, click the Advanced button to see the running RIF servers, and stop the server that is hosting the OPC connector that is connected to iFIX. Start iFIX, and then in the RIF Configurator, start the server again.

NOTE: Any Proficy Portal servers that are using this connector will experience communication loss during the shutdown period; therefore, if the connector is shared, due caution must be taken.

Notes on Shutting Down iFIX when Using the Remote Interface (RIF) Server

If you have the Remote Interface (RIF) server configured for the iFIX Workspace OPC Server, you will not be able to shut down iFIX until you manually stop the RIF server.

If you do not stop the RIF server before shutting down iFIX, the next time you start iFIX you will receive an error: Cannot start iFIX. Please identify the program which is still accessing iFIX system

resources and shut it down before restarting...

Working with iFIX Drivers

Using the PowerTool after Installing iFIX

Each 7.x driver has a PowerTool. If you want to run the PowerTool configuration program of a 7.x driver without running iFIX, you must have an iFIX key installed.

Starting 7.x Drivers Automatically in iFIX

The startup list in the SCU typically has the /A command line parameter in the IOCNTL.EXE program. The /A parameter is used to start all I/O drivers identified in the SCADA configuration of the SCU.

Use the Advanced tab of the PowerTool dialog box to set the Auto Start for each driver. If you do not use the /A parameter and:

- the Auto Start setting in the PowerTool is set to On, 7.x driver starts automatically.
- the AutoStart setting in the PowerTool is set to Off, 7.x driver does not start automatically.

Issues with Remote OPC Servers and the Workspace

When remotely connected to some OPC servers, the Proficy iFIX Workspace does not shut down after exiting. You may experience this issue with the following drivers:

- ABR
- GE9
- M32
- MBE
- OPC
- SI5
- SL4
- SI7

GE Intelligent Platforms Engineering is currently investigating this issue. Refer to the GlobalCare web site for software downloads for I/O driver updates:

<http://www.ge-ip.com/support>

Using Third-Party Products with iFIX

Upgrade Older Versions of Third-Party Controls

Be aware that using an older version of some third-party controls, such as AMOVIE.OCX, may cause memory overwrites. These overwrites may in turn cause iFIX to perform unpredictably. To avoid problems with third-party controls, be sure to use the most recent version of all third-party controls.

Use the MSFlexGrid Control Effectively

If you use the MSFlexGrid control in an iFIX picture, you may encounter slow performance when you try to open or save your picture, or when you try to switch environments. To resolve this issue:

1. Open a new picture.
2. Drag and drop the MSFlexGrid control from the old picture into the new picture.
3. Delete the MSFlexGrid control from the old picture.
4. Save the old picture.
5. Drag and drop the MSFlexGrid control back into the old picture and re-save it.
6. Delete the new picture.

Licensing Issues with MSFlexGrid Control

When inserting an MSFlexGrid control into the WorkSpace, you may receive an error message indicating that you do not have a license to use this control. If this occurs, you need to either install Visual Basic on the computer where you are running WorkSpace, or add the licensing keys to the registry.

For more information, refer to the Microsoft Knowledge Base article 318597.

Register Third-Party OPC Data Sources Properly

Certain third-party OPC servers do not support the ValidateItems call. If you try to connect to items in that third-party OPC server through the iFIX Animations dialog box, you will get an error for items that exist in your OPC server: "ItemName Source does not exist. Create or Use Anyway?"

To eliminate this error, you need to make the following registry change for the OPC data source.

1. Add the string value "ValidateItemsNotSupported" to
 \HKEY_CLASSES_ROOT\FIX32\DataSources\OPCSERVERNAME key.
2. Set the string value to "true".

For example, if your third-party OPC server is installed as SOMEOPCSERVER, then you would add the string value "ValidateItemsNotSupported" to
 \HKEY_CLASSES_ROOT\FIX32\DataSources\SOMEOPCSERVER key, setting the string value to "true." This change verifies that data items on OPC Servers not implementing the ValidateItems call

can be read.

Optimizing iFIX Performance

Activate Duplicated Tags by Reloading the Database

When you duplicate a tag in Database Manager, the new tag will only return a value once, unless you save and reload your database. For example, if you have a link in a picture that monitors the current value of an AI tag connected to a SIM register, you can duplicate this tag, rename it, and add a link to the picture that monitors this new tag. However, after the first read, subsequent reads will not work until you save and reload the database.

For More Tips on Optimizing iFIX...

Look up "optimization, introduction" in the online help Index. This link brings you to an Introduction in the Optimizing Your iFIX System guide. This guide lists tips and strategies you can use while developing pictures, writing scripts, and implementing your iFIX system.

iFIX VBA Tips and Tricks

Visual Basic for Applications, or VBA, is the standard scripting language built into iFIX. VBA can be used to customize and extend the functionality of iFIX. Use these guidelines when creating applications in the Visual Basic Editor from iFIX:

- Refrain from using punctuation marks, pound sign (#), and VBA reserved words within VBA file names.
- Avoid generating a script within a script, that is currently executing. This causes unpredictable results.
- Do not use the WM_CLOSE SendMessage to close a user form; the object does not get destroyed properly. If you must close a form with a script, use the WM_DESTROY SendMessage.
- Avoid referencing the Intellution iFIX Find and Replace Mechanism v1.0 Type Library in your project. It causes an error when you compile your script.
- Be aware that a script based on an object's event should not call the DestroyObject method on the parent of the same object. Doing so causes unpredictable results.
- If you are using any of the iFIX subroutines to write data back to the database, use the F_CV field as the data link. Using the A_CV field may cause unpredictable results.
- Do not use the DbClick event when you configure a Data link for "In-Place" data entry. If you do, the DbClick event does not execute.
- Do not access class modules that are declared as PRIVATE in an out of process environment, such as user.fgx, expert globals, or any Global pages. This is not allowed.
- Be aware that when you change a source tag in iFIX, an automation error displays if you do not allow iFIX enough time to establish the new connection before you read the InputValue property. The wait time depends on the scan time of the event object source tag.

- If you set a tag with a static value as the source tag twice in a row, you will cause an automation error.

For more information on using VBA in your iFIX projects, look up "summaries" or "scripting, in iFIX" in the online help Index.

Code Example: Checking for a Null Value with the iFIX RealTime ODBC Driver

The iFIX RealTime ODBC driver was built to allow NULL values to be returned. For example, when checking iFIX real time data for a tag that does not exist, a value of NULL is returned when the tag is not found. In some instances it may be helpful to check for the NULL value so that it is not counted as one string returned. The following is an example of code that will allow you to check for the NULL value:

```
If Record.ID "" Then
MSG = "A valid record exists"
Else
MSG = "A null situation exists"
End If
MsgBox MSG
```

Code Example: Creating a VB Client Application Properly

Creating a VB client application that accesses the Workspace.Application object through early binding causes unpredictable results. For example, the following sample script, which uses early binding, causes the Workspace to terminate unexpectedly:

```
Private Sub Form_Load()
Dim iApp As CFixApp
Dim iSystem As Object
Set iApp = CreateObject("Workspace.Application")
Set iSystem = iApp.System
End Sub
```

To avoid this problem, replace the second line in the above sample script with the following line:

```
Dim iApp As Object
```

Localized iFIX Release Notes

iFIX French: Installation and Upgrade Notes

If you want to install the iFIX French product, be sure that you abide by the following guidelines:

- For Windows XP - French, make sure that you have at least Service Pack 1 installed.
- If you want to upgrade from a previous version of the iFIX French product, be sure that you delete the AlmODBC.cfg file in your iFIX Local folder, if it exists. Deleting this file removes all existing settings for the Alarm ODBC Service. You will need to reconfigure your Alarm ODBC Service.

iFIX Chinese: Tips for Push Button Captions

In the Proficiency iFIX WorkSpace, when you enter Chinese characters on the caption of a push button using the Quanpin or Intelligent ABC Input method, the characters you enter display duplicated on the caption. For example, if you enter "XY" using one of these methods, "XYXY" actually displays on the caption of the push button. To resolve this issue, you should always enter Chinese characters on the caption of a push button using the Microsoft PinYin Input Method 2.0.

iFIX Japanese: Guidelines for VBA Naming Conventions

In VBA on Japanese systems, do not use double-byte numeric characters, double-byte roman characters, double-byte symbols, or double-byte spaces in picture names, schedule names, or shape object names, or Toolbars and Categories. Also, do not use single-byte Katakana.

Hiragana, double-byte Katakana, and Kanji characters can be used in these names, however.

All Regions

Installing a Localized iFIX on Top of an English iFIX Version

If you install a localized version of iFIX on top of a pre-existing English version, be aware that you need to remove the *node_association.dat* file manually. The install program does not remove this file.

The *node_association.dat* file is a toolbar category file and is located in the iFIX LOCAL folder. If you installed iFIX to the default location, this folder is C:\Program Files\Proficiency\Proficiency iFIX\LOCAL.

When you start the localized iFIX product and open the WorkSpace, a new *node_association.dat* file is created, replacing the one you deleted.

Regional Settings and the iFIX Sample System

There is a known bug in the Microsoft Vector Markup Language (VML) rendering engine that may cause web pages to appear incorrectly when the Decimal Symbol is set to a comma (,) instead of a period (.). This bug applies to both Microsoft Internet Explorer 6 and Internet Explorer 6 with Service Pack 1. The Decimal Symbol is defined in the Regional and Language Options dialog box from the Windows Control Panel as part of the default regional settings when you specify a locale.

In iFIX, this setting affects the presentations that are part of the Sample System. For instance, in some European languages, which use the comma as a Decimal Symbol, the text in the web pages for the sample system presentation may appear scrambled.

Microsoft has acknowledged this issue in knowledge base article number 814039. Fixes for Windows

XP are available at:

<http://microsoft.com/downloads/details.aspx?FamilyId=1316D7B9-CD1C-4676-819F-C200CEFA15EF&displaylang=en>

If your local language does not appear in the drop-down on this web page, contact Microsoft Support for further information. This fix applies to both Microsoft Internet Explorer 6 and Internet Explorer 6 with Service Pack 1.

Regional Settings and the Data Link Format

When the Decimal Symbol is set to a comma (,) instead of a period (.) for the regional settings, such as with German, there is no change in syntax for the raw format of a data link.

For instance, if you set the data link raw format to %7.2f in Configure mode, once you switch to Run mode, the numeric data link appears with the comma (,) and runs correctly. If you subsequently change the raw format to %7,2f manually, then the data link no longer works when you switch to Run mode.

Alarm Printing Issues

If you experience issues with the Alarm Printer Service (almprin.exe) output for your localized version of iFIX, you can resolve them by creating a Printer.ini file and saving it in your C:\Dynamics\Local or C:\Program Files\Proficy\Proficy iFIX\Local folder. Specifying a Print Manager option in the Printer.ini file should resolve fonts that appear corrupted when printed.

To create the Printer.ini file, follow these steps:

1. Open a text editor, such as Microsoft® Notepad or Wordpad.
2. Create a text file and then save the empty file as Printer.ini in the iFIX LOCAL folder. For instance, if you installed to the default folder, the path is C:\Program Files\Proficy\Proficy iFIX\LOCAL.

***IMPORTANT:** If you use the application project management feature in iFIX, you must save a printer.ini into each ProjectName\LOCAL folder, where ProjectName is the name of a project.*

3. Copy and paste the following lines into the Printer.ini file:

```
;-----  
[ALARMS]  
use_print_manager=YES  
;-----
```

4. If you have multiple USB printers configured on your machine and need to specify which one to use for alarm printing, include the additional usb_port_name=USB001 line in your Printer.ini file.

In this additional line, *USB001* refers to the name of the USB printer port that you want to print to. For example, for multiple USB printers, your Printer.ini file should look similar to this:


```

;-----
[ALARMS]
use_print_manager=YES
usb_port_name=USB001
;-----

```

***NOTE:** If you are not using a USB printer, you do not need the `usb_port_name=USB001` line in your `Printer.ini` file.*

5. If you want to specify the number of lines per page that the alarm printer prints, you also need to include 2 more lines to enable printer flushing: `use_print_manager_flush_number=YES` and `print_manager_flush_number=50`, where `50` is the number of lines per page that you want to print. For example, your `Printer.ini` file would look like this after you add the additional lines:

```

;-----
[ALARMS]
use_print_manager=YES
use_print_manager_flush_number=YES
print_manager_flush_number=50
usb_port_name=USB001
;-----

```

6. Save the file. If you have multiple projects, make sure you update and save the `Printer.ini` for each project.
7. Restart iFIX.

Getting More Information on How Help Works

When you open the Using Help option from the Help menu in an iFIX application, such as the Workspace, SCU, or Database Manager, in Windows XP for any language, the Dialog Box Help topic appears instead of the Using Help topic. This is a documented bug in Windows XP. For more information, refer to the Microsoft knowledge base article at: <http://support.microsoft.com/default.aspx?scid=kb;en-us;317972>.

In addition, the title bar for the Using Help topic displays in English. This is due to issues with the `Winhlp32.hlp` and the `Winhlp32.cnt` files that are installed in the `Windows\Help` folder as part of Windows XP.

Uninstall and Reinstall Issues

If iFIX is used by multiple users, and you uninstall and then reinstall it to a different folder, you may experience issues with some users. These user issues can also occur in other versions of iFIX.

For example, say UserA installs iFIX to `C:\LocationA`, and then both UserA and UserB make use of iFIX. If UserA uninstalls iFIX and then reinstalls iFIX to another location, say `D:\LocationB`, without deleting `C:\LocationA`, UserB may experience issues. Although UserA will be able to use iFIX in its new location without any problems, UserB will see several error messages if he tries to launch iFIX or the SCU, since his registry paths still point to `C:\LocationA`.

Important Product Information, iFIX 5.5

As a workaround, open the Windows Registry and delete the HKEY_USERS\

IMPORTANT Add/Remove Information for Proficy Historian

If you choose to remove Proficy Historian from the Add or Remove Programs in the Control Panel, do not remove Microsoft system files if prompted to do so. This could cause critical operating system issues.

iFIX 5.5 System Requirements

Software Requirements

GE Intelligent Platforms recommends using the latest service packs for Windows operating systems. The minimum iFIX software requirements include:

- One of the following operating systems:
 - Microsoft® Windows® XP Professional, Service Pack 3. Since Windows XP has continuous updates, you should run the Windows update feature to get the latest software.
 - Microsoft® Windows® Server 2003, Service Pack 2, Standard or Enterprise Edition. Since Windows Server 2003 has continuous updates, you should run the Windows update feature to get the latest software.
 - Microsoft® Windows® Vista™, Service Pack 2, Business, Enterprise, or Ultimate Edition. Since Windows Vista has continuous updates, you should run the Windows update feature to get the latest software.
 - Microsoft® Windows® Server 2008 (32-bit), Service Pack 2, Standard or Enterprise Edition. Since Windows Server 2008 has continuous updates, you should run the Windows update feature to get the latest software.

***NOTE:** Be aware that the maximum, supported RAM on the Standard Edition for Windows Server 2008 (32-bit) and Windows Server 2003 is 4GB, and this may limit the performance. For better performance, it is recommended that you use a 64-bit operating system, or an operating system that supports Physical Address Extension (PAE). PAE is available on the Enterprise version of Windows Server 2003 and the Windows Server 2008 (32-bit).*

- Microsoft® Windows® Server 2008 R2 (64-bit), Service Pack 1, Standard or Enterprise Edition. Since Windows Server 2008 has continuous updates, you should run the Windows update feature to get the latest software.
- Microsoft® Windows® 7 (32-bit or 64-bit), Service Pack 1, Professional, Enterprise, or Ultimate Edition. Since Windows 7 has continuous updates, you should run the Windows update feature to get the latest software.

NOTE: The iFIX WebSpace Server, however, only supports 64-bit on Microsoft® Windows® 7.

- Microsoft® Windows® XP Tablet Edition, for iClient only.
- Microsoft® Windows® XP Embedded, Service Pack 3.

NOTES:

- The iFIX WebSpace Server and Proficiency Historian for SCADA are not supported on the Windows XP Embedded operating system.
- Only English Windows XP Embedded, with English regional settings, is supported with English iFIX; other language operating systems or regional settings for Windows XP Embedded are not supported.
- The .NET Component is not supported on the Windows XP Embedded operating system.

- Proficy Change Management is not supported on the Windows XP Embedded operating system.
- Network interface software for network communication and certain I/O drivers.
- If you are using third-party software along with iFIX, make sure that the third party software is also supported for the operating system you are running iFIX on. For instance, if you are running iFIX on Microsoft Windows Vista, your third party software must also be supported on Microsoft Windows Vista.
- An I/O driver for SCADA servers. GE Intelligent Platforms supplies I/O drivers for many programmable controllers or you may purchase a driver separately.

IMPORTANT: Be certain that the I/O driver you purchase is compatible with your hardware and operating system. For example, if the driver is not supported on a 64-bit system, then you cannot use this driver with iFIX on 64-bit. Currently, iFIX supports the following drivers on 64-bit operating systems: the OPC, EGD, IGS, and MBE drivers. For more information and for future updates to this list, check our support web site at: <http://support.ge-ip.com>.
- Microsoft® Windows® Internet Explorer 7, 8, or 9 (32-bit only). For iFIX Webspaces sessions, in addition to Microsoft Internet Explorer 7, 8, and 9 (32-bit only), Mozilla Firefox is also supported. The following Mozilla Firefox versions were tested: 4.0, 5.0, 6.0, 7.0, and 8.0.
- If using the Historian Excel Add-In, Microsoft Office XP, Office 2003, Office 2007 SP1, or Office 2010 is required.
- If using the Plant Applications Dynamics in iFIX pictures, Microsoft Office 2003 or 2007 is required.
- If using the iFIX WebSpace Server, one of the following web server programs:
 - Microsoft Internet Information Server (IIS) 5.1, 6.0, 7.0, or 7.5.
 - Apache HTTP Server 2.2.10 or greater.
- One of the following relational database applications, if relational database software is used with iFIX:
 - Microsoft® SQL Server 2005 (SP2 and higher).
 - Microsoft® SQL Server 2008.
 - Microsoft® SQL Server 2008 R2.
 - Oracle® 10g.
 - Oracle® 11g R2.
 - Microsoft® Access 2000 (or higher). Microsoft Access is supported for local installs only.

Hardware Requirements - iFIX without Enhanced Failover, Proficy Historian for SCADA, or iFIX WebSpace

For Proficy HMI/SCADA - iFIX computers, the recommended minimum hardware requirements are:

- A 2.0 GHz Intel® Core™2 Duo Processor or better computer. For better performance, GE Intelligent Platforms recommends a minimum 3 GHz computer with 4 GB memory or greater. Be aware that the computer must be at least Dual-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.

- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 2 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- A minimum of 10 GB of free hard drive space for iFIX pictures, databases, alarm files, and other data files. Even after allowing for an extra GB for iFIX, it is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.

Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Plant Applications, Proficy Historian, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes.

NOTE: iFIX no longer supports NetBIOS.

NOTE: iFIX does not support IPv6.

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution. For Windows 7, the graphics cards should be "Windows 7 (certified)".
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

Hardware Requirements - iFIX with Enhanced Failover Enabled

For Proficy HMI/SCADA - iFIX computers with SCADA Enhanced Failover features enabled, the recommended minimum hardware requirements are (for both primary and secondary computers):

IMPORTANT: The minimum requirements below assume that you are running only a SCADA server without additional applications, such as EDA or FIX Desktop applications. If you want to run more applications, you will need to increase your hardware support for better performance.

- A 3.0 GHz Intel® Core™2 Duo Processor or better computer. For better performance, please consider using higher. Be aware that the computer must be at least Dual-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.

Important Product Information, iFIX 5.5

- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computers and dedicated network card (NIC) must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 4 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- One additional Gigabit-Ethernet card (or better) dedicated for SCADA-to-SCADA traffic (for a total of at least 2 network cards). The dedicated SCADA-to-SCADA network card should be excluded from the iFIX-to-iFIX network (not enabled for LAN redundancy), and used exclusively for Enhanced Failover synchronization. Both network cards must be of the same speed, and appear on the compatibility list for each card. It is strongly recommended that the cards be of the same make and model number, and use the same drivers.

IMPORTANT: You must use a direct connection via a Cat6 crossover cable, without going through any switches, hubs, or routers. Due to limited bandwidth and latency, wireless networking technology should not be considered.

- The wake-up upon receiving a socket or/and request feature must be disabled on the dedicated SCADA-to-SCADA network card.
- Jumbo Frames technology must be used on the dedicated network for Enhanced Failover. Jumbo Frames technology allows for an Ethernet frame of 9000 MTU for the payload, compared to a frame of 1500 bytes without the Jumbo Frames.
- A minimum of 10 GB of free hard drive space. Even after allowing for an extra GB for iFIX, it is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.

Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Plant Applications, Proficy Historian, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- Primary and Secondary SCADA computers located physically next to each other, in the same location/room.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes.

NOTE: iFIX does not support IPv6.

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution. For Windows 7, the graphics cards should be "Windows 7 (certified)".
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

Hardware Requirements - iFIX with Proficy Historian for SCADA

For Proficy HMI/SCADA - iFIX computers with Proficy Historian for SCADA, the recommended minimum hardware requirements are:

- A 3.0 GHz Intel® Core™2 Duo Processor or better computer. For better performance, please consider using higher. Be aware that the computer must be at least Dual-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 4 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- A minimum of 40 GB for free hard drive space. It is strongly recommended that many GBs of additional free space exist on the hard drive for growing Archiver files and to avoid performance issues.

Be aware that archiver data files grow dynamically. If you plan to perform extensive iFIX data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Plant Applications, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes.

NOTE: iFIX does not support IPv6.

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution. For Windows 7, the graphics cards should be "Windows 7 (certified)".
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

Hardware Requirements - iFIX and iFIX WebSpace (without a Relay Server)

IMPORTANT: While running the iFIX WebSpace Server and the SCADA Server on the same machine is supported, it is strongly recommended that production SCADA Servers reside on a different machine than the iFIX WebSpace Server. Also, SpeedStep® technology is not supported and must not be enabled on either server.

iFIX WebSpace Server - Less than 5 Clients

The following minimum hardware recommendations apply when using the iFIX WebSpace Server on a low-end machine supporting less than five iFIX WebSpace sessions, and iFIX projects with pictures that have a small amount of animation, shapes, and bitmaps:

- A 3.0 GHz Intel® Core™2 Duo Processor or better computer. For better performance, please consider using higher. Be aware that the computer must be at least Dual-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 8 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- A minimum of 10 GB of free hard drive space. It is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.

Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Plant Applications, Proficy Historian, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes. Since the server bandwidth scales linearly with the number of clients connected, the speed of the network card on the server should be able to accommodate these connections.

NOTE: iFIX does not support IPv6. If you disable IPv6 to use iFIX WebSpace, make sure that your local HOSTS file does not contain any IPv6 references. For example, remove the ":::1 localhost" lines from the HOSTS file, and replace them a line that references the IP address and the local host name (if necessary).

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

iFIX WebSpace Server - Up to 25 Clients

The following minimum hardware recommendations apply when using the iFIX WebSpace Server on a high-end machine that can support up to 25 clients:

- Intel® Xeon® Quad-Core Processor, running at 3.2 GHz or better. For better performance, please consider using higher. Be aware that the computer must be at least Quad-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 16 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- A minimum of 10 GB of free hard drive space. Even after allowing for an extra GB for iFIX, it is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.

Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Plant Applications, Proficy Historian, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes. Since the server bandwidth scales linearly with the number of clients connected, the speed of the network card on the server should be able to accommodate these connections.

NOTE: iFIX does not support IPv6. If you disable IPv6 to use iFIX WebSpace, make sure that your local HOSTS file does not contain any IPv6 references. For example, remove the ":::1 localhost" lines from the HOSTS file, and replace them a line that references the IP address and the local host name (if necessary).

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- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.

NOTE: For better performance, considering using an external graphics card with a PCI-E interface adapter with 512MB RAM or better.

- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

iFIX WebSpace Browser Session

The speed of the client computer viewing the iFIX WebSpace session through a browser can also impact performance. Faster client machines typically load iFIX pictures much quicker, and have improved performance while those pictures are open. For instance, in testing, a slow client with 512 MB RAM and 1.5 GHz processor had picture load times approximately 1.5 times longer than a faster client with 1 GB RAM and 3.0 GHz processor.

Network speeds and connection types also impact performance for an iFIX WebSpace session. A 100 MBit or faster network adapter, which is recommended, allows the iFIX WebSpace session to utilize optimum speed for its performance. Companies using VPN connections for iFIX WebSpace sessions may experience a decrease in performance.

For iFIX Webspace sessions, the following browsers are supported: Mozilla Firefox and Microsoft Internet Explorer (32-bit browsers only; 64-bit browsers are not supported). For Mozilla Firefox, the following versions were tested: 4.0, 5.0, 6.0, 7.0, and 8.0.. For Internet Explorer, the following versions were tested: 7.0, 8.0, and 9.0.

NOTE: The Mozilla Firefox plug-in will not run on Microsoft Internet Information Server (IIS) 6.0 or greater unless you modify IIS to serve a document with a registered MIME type extension of xpi on that IIS server (MIME type is xpi). IIS 6.0 or greater does not serve unknown MIME types. Please see KB article 326965 on the Microsoft Knowledgebase for more information:
<http://support.microsoft.com/default.aspx?scid=kb;en-us;326965>.

NOTE: Running iFIX WebSpace client sessions (browser or desktop client) on the same computer as the iFIX Web Space Server is not supported.

Hardware Requirements - iFIX and iFIX WebSpace in a Relay Server Configuration

IMPORTANT: *The production SCADA Servers should reside on a different machine than the Relay Server or Dependent Application Server. Also, SpeedStep® technology is not supported and must not be enabled on any of these servers.*

Relay Server

The following minimum hardware recommendations apply when using the iFIX WebSpace Relay Server on a high-end machine that can support up to 25 clients:

IMPORTANT: Performance may vary based on the number of pictures being presented on each session.

- Intel® Xeon® Quad-Core Processor, running at 3.2 Ghz or better. For better performance, please consider using higher. Be aware that the computer must be at least Quad-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 16 GB RAM. For better performance, please consider using more.
NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.
- A minimum of 10 GB of free hard drive space. Even after allowing for an extra GB for iFIX, it is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.
- A DVD drive.
- 1 GB Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication. Since the server bandwidth scales linearly with the number of clients connected, the speed of the network card on the server should be able to accommodate these connections.
NOTE: iFIX WebSpace does not support IPv6. If you disable IPv6 to use iFIX WebSpace, make sure that your local HOSTS file does not contain any IPv6 references. For example, remove the ":::1 localhost" lines from the HOSTS file, and replace them a line that references the IP address and the local host name (if necessary).
- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

Dependent Server - Less than 5 Clients

The following minimum hardware recommendations apply when using the iFIX WebSpace Dependent Server on a low-end machine supporting less than five iFIX WebSpace sessions, and iFIX projects with pictures that have a small number of animation, shapes, and bitmaps:

IMPORTANT: Performance may vary based on the number of pictures being presented on each session.

- A 3.0 GHz Intel® Core™2 Duo Processor or better computer. For better performance, please consider using higher. Be aware that the computer must be at least Dual-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.

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- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.
- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 8 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- A minimum of 10 GB of free hard drive space. It is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.
Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.
- Other Proficy products, such as Proficy Plant Applications, Proficy Historian, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes. Since the server bandwidth scales linearly with the number of clients connected, the speed of the network card on the server should be able to accommodate these connections.

NOTE: iFIX does not support IPv6. If you disable IPv6 to use iFIX WebSpace, make sure that your local HOSTS file does not contain any IPv6 references. For example, remove the ":::1 localhost" lines from the HOSTS file, and replace them a line that references the IP address and the local host name (if necessary).

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

Dependent Server - Up to 25 Clients

The following minimum hardware recommendations apply when using the iFIX WebSpace Dependent Server on a high-end machine that can support up to 25 clients:

- Intel® Core®2 Quad Processor, running at 3.2 GHz or better. For better performance, please consider using higher. Be aware that the computer must be at least Dual-Core; a single core is not supported (with or without hyper-threading). Hyper-threading is also not supported on multiple core computers.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the /nowait instruction when

resynchronizing the clock. For example: `W32tm /resync /nowait`. The `/nowait` parameter instructs the operating system to make a stepping adjustment against the time server.

- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 16 GB RAM. For better performance, please consider using more.

NOTE: To use more than 4 GB of memory on a 32-bit platform you need to use Microsoft Windows 2003 or 2008 Enterprise Server. Windows Vista and Windows XP do not support Physical Address Extensions, so you can only use up to 4GB of memory on these operating systems.

- A minimum of 10 GB of free hard drive space. Even after allowing for an extra GB for iFIX, it is strongly recommended that many GBs of additional free space exist on the hard drive to avoid performance issues.

Be aware that iFIX alarm and historical data files grow dynamically. If you plan to perform extensive alarm or data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Plant Applications, Proficy Historian, and Proficy Real-Time Information Portal, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.
- A DVD drive.
- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes. Since the server bandwidth scales linearly with the number of clients connected, the speed of the network card on the server should be able to accommodate these connections.

NOTE: iFIX does not support IPv6. If you disable IPv6 to use iFIX WebSpace, make sure that your local HOSTS file does not contain any IPv6 references. For example, remove the `:::1 localhost` lines from the HOSTS file, and replace them a line that references the IP address and the local host name (if necessary).

- One free direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 1024x768 resolution.

NOTE: For better performance, considering using an external graphics card with a PCI-E interface adapter with 512MB RAM or better.

- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

Hardware Requirements - iFIX for Windows XP Embedded

The hardware requirements for running iFIX on the Microsoft Windows XP Embedded operating system include:

- A minimum Atom-based 1.6 GHz computer or equivalent.
- SpeedStep® technology is not supported and must not be enabled.
- For time synchronization, the Windows Net Time and W32tm commands are both supported. However, if using the W32tm command, be sure to use the `/nowait` instruction when

resynchronizing the clock. For example: W32tm /resync /nowait. The /nowait parameter instructs the operating system to make a stepping adjustment against the time server.

- The power save settings on your computer must be disabled. Do not use any power setting features that affect CPU clock speed.
- A minimum of 1 GB RAM.
- A minimum of 3 GB of free hard drive space to install a typical iFIX system, including pictures, databases, alarm files, other data files, and help.

iFIX alarm and historical data files grow dynamically. If you plan to perform alarm or data collection on a node, you may need more disk space on that particular node.

- Other Proficy products, such as Proficy Historian, impose additional requirements. Refer to the Important Product Information (IPI) topic in the product's electronic books for specific system requirements. Click the System Req. tab in that product's IPI for details.

NOTE: If using Proficy Historian with iFIX, it is recommended that you disable the FIXTOHIST service, if it is running on the Windows XP Embedded system, to conserve CPU usage. The FIXTOHIST service can be disabled by removing the following line from the FIX.INI file found in the \Proficy iFIX\LOCAL folder:

```
RUN=%FIXTOHIST.EXE
```

- 100 MBit or faster Full Duplex TCP/IP-compatible network interface adapter for iFIX network communication between SCADA and Client nodes. Since the server bandwidth scales linearly with the number of clients connected, the speed of the network card on the server should be able to accommodate these connections.

NOTE: iFIX no longer supports NetBIOS.

NOTE: iFIX does not support IPv6.

- One free, direct-connect USB port. Some touch screens, pointing devices, and I/O drivers require a serial port. Additional ports for I/O hardware should be ordered with the computer.
- SVGA or better color monitor with a 24-bit (16,777,216 colors) graphics card capable of at least 800x600 resolution.
- Two-button mouse or compatible pointing device (such as a touch screen) that is capable of opening a context menu.

IMPORTANT: There are risks associated with using a Compact Flash or a similar device as a Primary drive in the Windows XP Embedded environment with the iFIX product and your production data. These types of devices have a lifetime associated with them regarding the number of writes the device is capable of over a lifetime. As such, storing production data on such a device may result in lost data, over the long term. If the system has a physical drive, and not a Compact Flash or a similar device, the production data is affected by this risk.

NOTE: Be aware that iFIX Enhanced Failover is not supported on Windows XP Embedded. For a complete list of unsupported items on Windows XP Embedded, refer to the "Recommendations and Unsupported Items" section on the Release Notes tab.

Compatibility

Several GE Intelligent Platforms products work with Proficy HMI/SCADA - iFIX. The following is a general set of required versions tested to work with the iFIX 5.5 product:

Product	Required Version
Proficy Pulse	1.0 with SP1_A, or 64-bit WoW support.
Proficy Plant Applications	4.4.1 or 5.0
Proficy Batch Execution	5.5 or 5.6.
Proficy Real-Time Information Portal	3.0 with SP1 or 3.5.
Proficy Historian for SCADA	4.5.
Proficy Historian	3.5, 4.0, or 4.5. <i>NOTE: If you are using VisiconX with Proficy Historian, you must install the Proficy Historian OLE DB driver.</i>
Proficy View - Machine Edition	6.5 or 7.0.
Proficy HMI/SCADA - SIMPLICITY	8.1 or 8.2.
Proficy Change Management (PCM)	5.8, 5.9, or 6.5. <i>NOTE: When installing the PCM Scheduler or PCM Thick Client along with iFIX, only PCM 6.5 with the latest SIMs and above is supported. However, iFIX 5.5 can connect remotely with a PCM Server of any version.</i>
Proficy Task List	1.5 with SP2, SIM2 or higher.
Proficy Workflow Trigger	1.0.