

iFix and Terminal Services

A Deployment Guide



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Table of Contents

1.	Intr	roduction 3
1.1		Topics
2.	Net	work Configuration 3
3.	Dep	bloyment Choices
4.	Mic	rosoft Pre-planning6
4.1		Relaxed Security 6
4.2		Disable DEP (Data Execution and Prevention7
4.3		Application Compatibility Script7
5.	IFix	Installation
5.1		Restart after Installation
6.	iFix	Licensing10
6.1		Virtual Keyboard11
7.	iFix	System Configuration for Terminal Services12
7.1		Launch iFix13
7.2		SCADA Configuration17
7.3		Path Configuration18
7.4	•	Network Configuration19
8.	Pro	file Manager23
9.	Lau	Inching from within ThinManager28
9.1		Hide the Startup Screen
10.	Add	ditional Microsoft Configurations
10.	1.	Add Users to Remote Desktop Group
10.	2.	End Disconnected Sessions
L	lser	Account
Т	erm	inal Server Settings
10.	3.	Set Relaxed Security
10.	4.	Apply Group Permissions



iFix and Terminal Services

1. Introduction

iFix is a SCADA (System Control and Data Acquisition) software. It was developed by Intellution and is now part of the GE Fanuc Proficy series of industrial software.

This tech note is a simplified deployment guide for ThinManager users. Although it was prepared with the help of iFix users and specialists, it is a mere aid and not the definitive source for information. **Please refer to official iFix documentation for questions and details.**

A special thanks goes to Scott Crider of Advantage Industrial Automation.

1.1. Topics

- Network Configuration
- Deployment Choices
- Microsoft Pre-planning
- iFix Installation
- iFix Licensing
- iFix System Configuration
- Profile Manager
- Launching from within ThinManager
- Additional Microsoft Configurations

2. Network Configuration

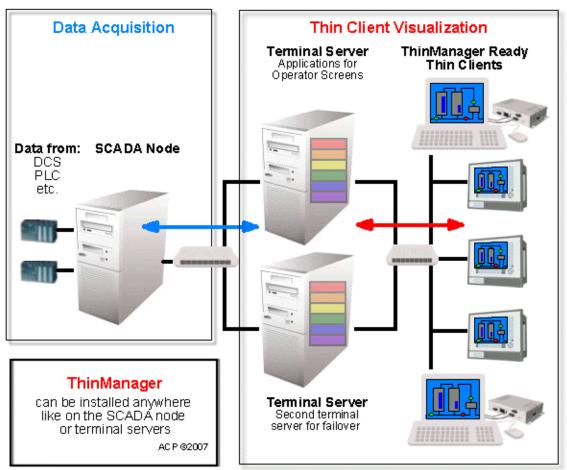
IFix is designed to pull data out of PLCs and factory-level sensors, present the data in a form usable by humans, and save the data for further usage. iFix is designed to function with a "two-box" system.

- The first box is a **SCADA** (Systems Control And Data Acquisition) computer. This is a PC that gathers the I/O and data from the PLCs and machinery and runs the iFix database. This computer provides the data and values to the system.
- The second box is a **View Node**. This is a computer that pulls the data from the SCADA node and displays it on screens for the operator.

In a terminal services environment the terminal server acts as the View node. Each client that connects to a terminal server will start a session and launch a view node



within the session. The sessions on the terminal server run the operator screens populated with data from the SCADA node.



iFix Thin Client Network

Sample iFix Network with Thin Clients

In a ThinManager system dual terminal servers can be setup to provide redundancy and failover. This allows the operator screens to keep running with current data if a terminal server fails.

Details about failover can be found on our Failover Tech Note at http://www.thinmanager.com/TechNotes/Failover/Failover_main.shtml .



3. Deployment Choices

How iFix will be deployed and used influences how iFix is configured.

- **Generic Deployment Model** All users use a common SCU file to launch a commonly configured application.
- **Specialized Deployment Model** Each user runs a unique environment and each user requires a specially configured SCU file.

This article will assume a generic deployment but will point out where changes need to be made to deploy a specialized configuration.

The generic deployment can be designed to launch a Main Menu with navigational buttons to allow the user to select the needed screens or the welcome screen can have scripts added that launch the desired screens based on the node name of the client.

Consult your iFix documentation for details.

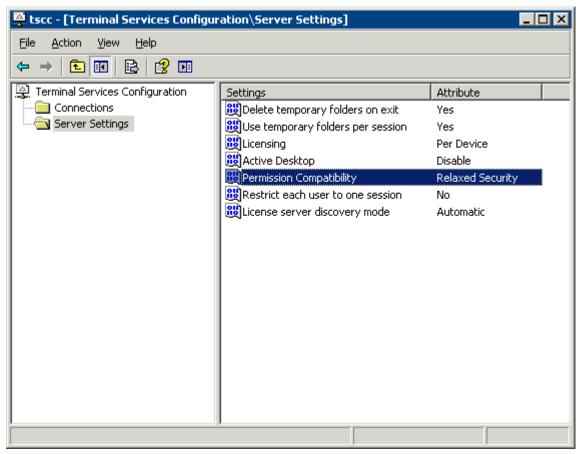


4. Microsoft Pre-planning

There are a few configuration changes that iFix may require on the Microsoft operating system, especially if legacy applications are needed to be upgraded to run on the new system. Consult your iFix documentation for details.

4.1. Relaxed Security

IFix requires the Relaxed Security setting. This can be applied by opening the **Terminal Services Configuration** console by selecting *Start> Programs> Administrative Tools> Terminal Services Configuration*. Select the **Server Setting** folder and change the **Permission Compatibility** setting to *Relaxed Security*.



Terminal Services Configuration – Server Settings

See

http://www.thinmanager.com/TechNotes/Microsoft/WindowsTips_main.shtml#open for details.



4.2. Disable DEP (Data Execution and Prevention

The DEP may need to be disabled for the terminal server to recognize USB license keys. The iFix documentation says:

"iFIX Does Not Start After Install Due to DEP Access Restriction (Proficy HMI/SCADA – iFIX Release Notes VERSION 4.0)

"When you start iKeyDiag or iFIX 4.0 for the the first time, an access violation may occur. You will not be able to start iFIX. This can occur due to hardware enforced DEP (Data Execution Protection) settings within Windows Server 2003 SP1 or Window XP SP2. To remedy this issue, you can selectively add the iFIX program to the DEP exception list or shut down the feature. iFIX will then run normally. For more information, refer to "DEP Support Statement For GE Fanuc Products Using Proficy Common Licensing" article on the GlobalCare site for more information:

http://globalcare.gefanuc.com/kc/kb/glbCarekbinfo.asp?objid=1553203&id=2 68450132 "

- iFix Documentation

Right Click on the **My Computer** Icon and choose *Properties*. Select the *Advanced* tab, then the *Settings* button in the **Startup and Recovery** section. Select the (manual) *Edit* button on the **Startup and Recovery Properties** Window.

Set the bootloader information to:

[boot loader]

timeout=30

default=multi(0)disk(0)rdisk(0)partition(1)\WINNT

[operating systems]

multi(0)disk(0)rdisk(0)partition(1)\WINNT="Windows Server 2003, Standard"
/fastdetect /NoExecute=alwaysoff

4.3. Application Compatibility Script

The following information is from the iFix e-books under <u>Installing and Configuring</u> <u>iFIX with Windows Terminal Server.</u> Also as a separate Document, it can be found at

C:\Program Files\GE Fanuc\ProficyDoc\1033\iFIX**TM.CHM**

Before you begin installing and configuring iFIX on a Terminal Server, it is recommended that you complete the following Windows administrative tasks:

- Run chkroot.cmd from the C:\Windows\Application Compatibility Script folder. This creates the RootDrv2.cmd file.
- In Notepad or another text editor, open the RootDrv2.cmd file from the C:\Windows\Application Compatibility Script folder. At the end of the file, on the Set RootDrive= line, add a driver letter. For example: Set RootDrive=W:
- Save the RootDrv2.cmd file.
- Run the RootDrv2.cmd file.

Verify that your Terminal Server is set up and functioning.



5. IFix Installation

The iFix software, like all software, should be installed on a terminal server in the **Install Mode**. Do this by selecting *Start > Settings > Control Panel > Add/Remove Programs > Add New Programs* and follow the installation wizard.

Proficy H	MI/SCADA - iFIX 4.0 🛛 🛛 🔀
i	Terminal Serverices is enable on this machine. Please verify that this install program was started using the Add/Remove programs control panel control.
	OK

Terminal Services Installation Warning

A warning will be displayed if you try to install on a terminal server without using the **Add/Remove Programs** function.

Proficy HMI/SCA	DA - iFIX 4.0	×
Setup Type Select the setu	up type to install.	
Please select a	a setup type.	
Complete	All program features will be installed. (Requires the most disk space.)	
C Custom	Select which program features you want installed. Recommended for advanced users.	
InstallShield	< <u>B</u> ack <u>N</u> ext > Cancel	

Setup Type Window

During the install a Setup Type window will be displayed.

The Complete selection is the normal choice unless the install is going to run Fix32 graphics using the Fix Desktop.



Proficy iFIX Configure	Wizard 🗙
Node Name	
NodeName: Fl	×
Node Type	
🔿 SCADA	 View
- Connectivity	
Networked	Stand Alone

Proficy iFix Configure Wizard

Proficy iFix Configure Wizard allows the terminal to be configured as a *View Node*. It also will be Networked, as shown in the picture.

The **SCADA** radio button will be selected when installing the SCADA node of the system.

The *NodeName* can be left as the default.

Remote SCADA Node List
Enter a remote SCADA node name:
List of remote SCADA nodes:
Add
Delete
<u>D</u> K. <u>S</u> kip

Remote SCADA Node List

The **Remote SCADA Node List** allows the SCADA nodes to be identified. This can be done now or later in the SCADA section of the Systems Configuration Utility.

5.1. Restart after Installation

Do not do an automatic restart at the end of the installation on a Windows 2003. Instead let the installation finish and then restart the computer manually. This allows the completion of the full install.



6. iFix Licensing

The iFix installation on the terminal server should be licensed before configuration begins. Consult your iFix documentation for details.

The License Viewer can be launched by selecting *Start>Programs > Proficy Common > License Viewer*.

M4 License Viewer			_ 8
Show All Save	Print		<u>About</u>
Proficy Products	License Key Diagnostics		
	License Key Information		
		10015070 100	
Motion	Customer Service Number:Customer Name	12345678 : ACP	
Developer	License Serial Number	22334455	
	Key Expiration	Thursday, November 15, 2007	
	License Creation	Friday, June 15, 2007	
	License Key Version	2	
Logic Developer PC	License Type	Hardware	
	iFIX		
	ILTY		
View Developer	License Expiration	No Expiration	
	Licensed Version	4	
_	Number of Terminal Server Connections	10	
	Number of Unit Blocks	0	
Change	Process Database Size	0	
Management	Number of Drivers Allowed	8	
	Number of OPC Connections	4	
	Options		
iFIX	SCADA Node with Baseline Blocks	Enabled	
	SCADA NODE WITH BASENNE BIOCKS	Enabled	
	SCADA SQC SCADA Batch	Enabled	
	SCADA Control	Enabled	
Batch Execution	Networking	Enabled	
	Historical Trend Recording	Enabled	
	ODBC Drivers	Enabled	
	Recipies	Enabled	
🛚 Start 🛛 🚱 🏉 👘 🖬 Comn	nand Prompt 👘 🔂 D:\Downloads\iFixUpd 🔂 D:\iFix_Documentation	😂 M4 License Viewer 🛛 📑 🌭	10:51 A

License Viewer

The **Proficy License Viewer** will display the number of terminal connections that the license allows along with other details.



6.1. Virtual Keyboard

iFIX provides a virtual keyboard that allows you to work in touch-screen environments or to use a mouse to enter passwords and other data. Install the virtual keyboard on the terminal server to make it available to each client licensed for iFIX.

To install the virtual keyboard:

- Double-click the **LICENSE.EXE** file in the Proficy iFIX directory on your terminal server. The IMG License Manager dialog box appears.
- Click Install Service to install the virtual keyboard licenses.
- Click *Administration Options & Help*. The **Terminal Server Administration Option** dialog box opens.
- Click Copy Global Settings to All User Folders, then click Yes to confirm.
- Click **OK** to return to the **IMG License Manager** dialog box.
- Click *Start Service* to activate the virtual keyboard for all licensed clients.



7. iFix System Configuration for Terminal Services

iFix is configured with the System Configuration Utility (SCU). The SCU tool allows the selection of startup options and file directories.

In iFix 3.0 and earlier, each terminal server user had to have a separate SCU (System Configuration Utility) file to allow each user to launch a unique instance of the program. The System Configuration Utility could be run once, then copied into a folder for each user. An additional IP address was need per session.

In iFix 4.0, a **Profile Manager** speeds the configuration process by allowing user settings to be based on the original configuration.

- If deploying using the Generic Deployment model create one SCU file in the SCU program and then use the Profile Manager to define the additional nodes.
- If deploying using the Specialized Deployment model create a SCU file for each node to define to program.



7.1. Launch iFix

The first step to configuration is verifying that iFix was installed properly and will run.

Launch the iFix workspace by selecting *Start>Programs > Proficy HMI SCADA – iFix 4.0 > iFix 4.0*. It will launch the **Proficy iFix Startup** program.

🤗 Proficy iFIX Startup	×
Proficy iFIX itart Proficy iEIX with these settings: Node Name: FIX SCU File: C:\Program Files\GE Fanue\Proficy iFIX\LOCAL\FIX.S Description: Configuration File for Node FIX	5 💌
Sample System	
Start the Sample System Proficy iFIX will run using a special set of files designed to demonstrate capabilities. SCU Run the System Configuration Utility Allows you to configure the iFIX system.	e it's
Desktop Shortcut	
Create a desktop shortcut Create a shortcut on your desktop using the settings listed above.	
Don't show this dialog box again; always start Proficy iFIX.	Exit

Proficy iFix Startup Window

Select the icon in the **Proficy iFix** section to launch the workspace to make sure that iFix will run.



Proficy iFIX WorkSpace (Configure File Edit WorkSpace Object View File Edit WorkSpace Object View File Alarm History Application Support File Application Support File Ocross Reference Tool Database Documents Documents Dynamo Sets FIX Recipes Globals FIX Recipes Globals FIX Recipes FI	Insert Forma <u>t W</u> indow <u>H</u> el	▋▓ऄ▙▏▙▐▁ ▙ ᢃॖॖॖॣॖॖॖॖॖॖऀऄॖॳॱॾॾ	
For Help, press F1		Configure PCM Disabled	

iFix Workspace

Once you have verified that the iFix workspace will run it can be closed.

Launch the SCU tool by selecting *Start>Programs > Proficy HMI SCADA – iFix 4.0 > System Configuration*. It will launch the **Proficy iFix Startup** program.



🔮 Proficy iFIX	K Startup		×
Proficy iFIX-	Start Proficy i <u>F</u> IX w Node Name: SCU File: Description:	ith these settings: FIX C:\Program Files\GE Fanue\Proficy iFIX\LO0 Configuration File for Node FIX	Callyfix.s 💌
-SCU	Start the <u>S</u> ample S Proficy iFIX w capabilities. Run the System Co	ill run using a special set of files designed to de	monstrate it's
_	Create a desktop s Create a shor	hortcut tcut on your desktop using the settings listed at ain; always start Proficy iFIX.	bove. Exit

Proficy iFix Startup Window

Select the icon in the **SCU** section to launch the SCU tool.

An **iFix System Information** window will be launched to allow the path to the SCU files to be chosen.

iFIX System Information	×
Enter the SCU file you want to configure. Since Windows Terminal Services are enabled on this machine, r exist. If you do not want to edit an existing SCU file, cancel out o	
SCU Path : C:\Program Files\GE Fanuc\Proficy iFIX\LOCAL\ OK Cancel	FIX Browse

iFix System I	nformation
---------------	------------

The default path is normally fine. Select the *OK* button to proceed.





System Configuration Utility

The System Configuration Utility (SCU) allows the components of the project to be defined.



7.2. SCADA Configuration

SCADA node configuration is managed by selecting *Configure > SCADA...* in the System Configuration Utility (SCU) to launch the **SCADA Configuration**.

CADA Configuration
SCADA Support Database Definition
C Enable C Disable Database Name: DATABASE ?
I/O Driver Definition
I/O Driver Name: ?
Configured I/O Drivers
Add
Configure
Setup
Delete
Partner SCADA
SCADA Name:
OK Cancel Help

SCADA Configuration

The terminal server is not a SCADA node so the *SCADA Support* should be disabled on the terminal server. The other features will be grayed out.

When configuring the SCADA node the SCADA Support is enabled and the database and I/O drivers can be defined.

Select **OK** to accept the configuration.



7.3. Path Configuration

Select *Configure > Paths* in the System Configuration Utility (SCU) to configure the file locations.

Path Configuration		×
Path	Location of System Software and Data Files	
Base:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX	?
Language:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\NLS	?
	Location of Project Files	
Project:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX	?
Local:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\LOCAL	?
Database:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\PDB	?
Picture:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\PIC	?
Application:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\APP	?
Historical:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\HTR	?
Historical Data :	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\HTRDATA	?
Alarms:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\ALM	?
Master Recipe:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\RCM	?
Control Recipe:	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\RCC	?
Alarm Areas (AAD):	C:\PROGRAM FILES\GE FANUC\PROFICY IFIX\PDB	?
Change Base	Change Project OK Cancel Help]

Path Configuration

The defaults are usually fine for the Generic Deployment Model.

If this system will use the Specialized Deployment Model then the **Local** path will need to point to where the SCU file will be stored.



7.4. Network Configuration

Select *Configure > Network* in the System Configuration Utility (SCU) to configure the network.

Network Configuration				
Network	Options			
○ No Network <u>S</u> upport	Dynamic Connections			
○ <u>N</u> etBIOS	Enforce Trusted Computing			
• <u>T</u> CP/IP	Network Password: INETWORK			
	Advanced			
Remote Nodes				
Remote Node Name:				
Configured Remote Nodes:				
	∆dd			
	<u>M</u> odify			
	Delete			
	<u></u> 01040			
	Configure			
Show All Names				
<u>0</u> K	<u>C</u> ancel <u>H</u> elp			

Network Configuration

The Network configuration window allows the network and SCADA nodes to be defined.

Select the *TCP/IP* radio button for the **Network**.

The SCADA servers are defined by entering their name in the *Remote Node Name* filed and selecting the *Add* button.



etwork Configuration				
Network	Options			
○ No Network <u>S</u> upport	Dynamic Connections			
○ <u>N</u> etBIOS	Enforce Trusted Computing			
• <u>T</u> CP/IP	Network Password: INETWOR	١ĸ		
	Advanced			
Remote Nodes				
Remote Node Name:	TANK_IO			
Configured Remote Nodes:				
IFIX_I0	Δ	dd		
Primary: BROWN				
Backup: SILVER TANK 10	<u>M</u> o	dify		
	<u>D</u> e	lete		
	Confi	gure		
✓ Show A <u>I</u> I Names				
<u>O</u> K <u>C</u> ancel <u>H</u> elp				

Defined SCADA Nodes

If a SCADA node has a backup SCADA server it can be defined by highlighting the SCADA node and selecting the *Configure* button.



Scu 🗧	Network Configu	ration		. 🗆 🗙
<u>F</u> ile <u>⊂</u> c	Network		Options	<u>H</u> elp
	O No Netwo	rk <u>S</u> upport	Dynamic Connections	
-	○ <u>N</u> etBIOS		Enforce Trusted Computing	
	• <u>T</u> CP/IP	emote Node Conf	figuration	
	Remote Ni Remote N Configured IFIX_IO Primal Backu TANK_IO	Logical <u>P</u> rimary <u>B</u> ackup <u>O</u> K	Logical Node Names Node: TANK_IO Node: TANK_IOA	

Remote Node Configuration

The Primary and Backup SCADA servers that make up the node can be entered to form a logical node. Select *OK* to accept changes.



etwork Configuration			
Network	Options		
• No Network Support	Dynamic Connections		
○ <u>N</u> etBIOS	Enforce Trusted Computing		
• <u>T</u> CP/IP	Network Password:	NETWORK	
	Advan	ced	
Remote Nodes			
Remote Node Name:	FIELD_IO		
Configured Remote Nodes	:		
IFIX_IO		Add	
Primary: BROWN Backup: SILVER		<u>M</u> odify	
TANK_IO		mouny	
Primary: TANK_IOA Backup: TANK_IOB		<u>D</u> elete	
FIELD_IO		Con <u>f</u> igure	
I I Show A <u>l</u> l Names			
<u>0</u> K	Cancel	<u>H</u> elp	

Configured Remote Nodes

When all the SCADA nodes used by the View nodes are defined select OK to accept the changes.

Save the SCU file by selecting *File > Save* or using *CTL+S*.

Note: Saving the SCU file is important.

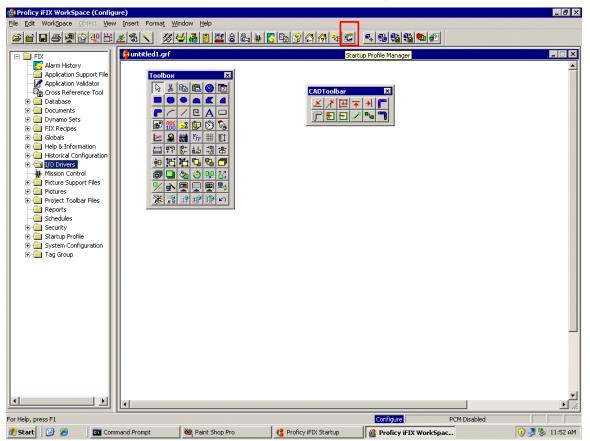


8. Profile Manager

Once a SCU file is created and saved it can be applied to many nodes with the Profile Manager.

Note: The Windows user accounts must be created before configuring users in the Profile Manager.

iFix must be running to launch Profile Mananger. Select *Start>Programs > Proficy HMI SCADA – iFix 4.0 > iFix 4.0* to launch the **Proficy iFix** workspace.



iFix Workspace

Launch Profile Manager by selecting the **Profile Manager** icon on the menu or by selecting *Start>Programs > Proficy HMI SCADA – iFix 4.0 > Startup Profile Manager*.



Profile Manager Button

The Profile Manager button shows two heads in profile against a monitor.



	itartup Profile Manag	jer			
Eile	Settings Help				
iF	IX Startup Profiles				
	Windows User 🔺	iFIX Nodename	SCU File	SCU Des	[
					<u>A</u> dd
					I
					<u>E</u> dit
-					
-					Remove
_					
					<u>H</u> elp
_					
				•	
•				F	1
D	efault SCU:	<none></none>			<u>C</u> lose
		1			

Startup Profile Manager

The **Startup Profile Manager** lists the defined profiles. Select the *Add* button to configure a profile.



$T = \Lambda_0$
Add Startup Profile
Domain: BLUE
Select a <u>W</u> indows user from the list, or enter user name manually:
Select the 'List Domain Users' button to populate this list.
Windows <u>U</u> ser:
iFIX <u>N</u> odename:
SCU <u>File:</u>
SCU Description:
FIX Startup Options
Allow user to run <u>S</u> ample System
Allow User to Modify Nodename and SCU
Add <u>Profile</u> Cl <u>o</u> se <u>C</u> ancel <u>H</u> elp

Add Startup Profile

Enter the user information in the Add Startup Profile window.



Add Startup Profile					
<u>D</u> omain: BLU	E	List Domain Members			
Select a <u>W</u> indows	user from the list, or enter u	iser name manually:			
Select the 'List Do	Select the 'List Domain Users' button to populate this list.				
) Windows <u>U</u> ser:	tank1				
iFIX <u>N</u> odename:	tank1				
SCU <u>F</u> ile:	C:\Program Files\GE Fa	nuc\Proficy iFIX\LOCAL\F			
SCU Description:	Configuration File for No	de FIX			
	ns run <u>S</u> ample System <u>M</u> odify Nodename and S	CU			
Add <u>P</u> rofile	<u>O</u> K	<u>Cancel</u> <u>H</u> elp			

Configured User

Enter the Windows user account that the node will use in the *Window User* field.

Enter the iFix node name in the *iFix Nodename* field. This can be the ACP ThinManager thin client's name.

Select the SCU file that the user will use by selecting the button with three periods. The same SCU file will be used if using the Generic Deployment Model while a different SCU file will be used for each user when using the Specialized Deployment Model.

Unselect the *Allow user to run Sample System* and the *Allow User to Modify Nodename and SCU* checkboxes.

Select *Add Profile* to accept the changes.

Create a profile for each terminal.

IX Startup Profiles				
Windows User 🔺	iFIX Nodename	SCU File	SCU Des 🔺	
boiler1	BOILER	C:\Program Files\GE Fanuc\Proficy iFIX\L	Configuration File	<u>A</u> dd
Forge1	FORGE1	C:\Program Files\GE Fanue\Proficy iFIX\L	Configuration File	
tank1	TANK1	C:\Program Files\GE Fanue\Proficy iFIX\L	Configuration File	
tank2	TANK2	C:\Program Files\GE Fanue\Proficy iFIX\L	Configuration File	
				<u>E</u> dit
				D
				<u>R</u> emove
				<u>H</u> elp
			•	
•			•	

000

Profile Manager

The **Profile Manager** will list the configured nodes with their Windows user name when finished.



9. Launching from within ThinManager

ThinManager can be configured to launch the iFix program automatically.

Open the Terminal Configuration Wizard for the desired terminal by double-clicking on it in the ThinManager tree.

Navigate to the Log in Information page of the wizard.

🜍 ThinManager v3.1	
<u>E</u> dit <u>M</u> anage <u>I</u> nstall <u>T</u> o	💆 Terminal Configuration Wizard
blue	Log In Information Enter the log in information to log in automatically. Leave the log in information blank or fill only some of the fields to force manual log in.
Will NC Boiler Boiler Tank1 Tank2 Terminal Serv Terminal Serv Terminal Serv	Log In Information Username Tank1 Password Verify Password Domain
	Initial Program Designating an initial program will launch that program when the session is created. Closing this program will end the session. Leave this blank to launch the normal Windows desktop. C:\Program Files\GE Fanuc\Proficy iFIX\launch.exe Browse
	< Back Next > Finish Cancel Help
For Help, press F1	

Terminal Configuration Wizard – Log In Page

Enter a valid Windows user name and password in the *Username* and *Password* field to allow auto-login.

Enter the path to the iFix launch program into the Initial Program field. The default path is *C:\Program File\GEFanuc\Proficy iFix\launch.exe*.

When the thin client boots it will automatically login to the terminal server and launch iFix with the configuration that was defined by the SCU specified in the Profile Manager for that user.



9.1. Hide the Startup Screen

Once the system is setup and the users and node are configured the Proficy Startup screen can be turned off so that iFix launches without displaying this window and making the user select iFix from the Startup window.

Open the Startup windows by selecting *Start>Programs > Proficy HMI SCADA – iFix 4.0 > iFix 4.0*. It will launch the **Proficy iFix Startup** program.

🔮 Proficy iFIX Star	rtup		×
s		ith these settings: FIX C:\Program Files\GE Fanuc\Proficy iFIX\LOC Configuration File for Node FIX	ALINFIX.S 💌
Sample System			
SCU Run th	:apabilities. ne System Co	ill run using a special set of files designed to den onfiguration Utility	nonstrate it's
Desktop Shortcut Create	e a desktop s Create a short	configure the iFIX system. hortcut cut on your desktop using the settings listed ab ain; always start Proficy iFIX.	ove. Exit

Proficy iFix Startup

Check the *Don't show this dialog box again; always start Proficy iFix* checkbox. This will launch iFix without requiring the user select iFix from the **Startup** window.



10. Additional Microsoft Configurations

There are a few Microsoft tweaks that will make the system more efficient. This is a guide. Please refer to iFix and Microsoft documentation for details.

10.1. Add Users to Remote Desktop Group

User accounts for terminal servers need to be added to the Remote Desktop Users group in Windows. Open the Computer Management console by selecting *Start* > *Programs* > *Administrative Tools* > *Computer Management*.

📙 Computer Management					
🗐 Eile <u>A</u> ction <u>V</u> iew <u>W</u> indow <u>H</u>	elp		_ 8 ×		
 Computer Management (Local) System Tools Event Viewer Shared Folders Local Users and Groups Groups Performance Logs and Alert: Device Manager Storage Removable Storage Disk Defragmenter Disk Management Services and Applications 	Name Administrators Backup Operators Backup Operators Backup Operators Backup Operators Backup Operators Backup Operators Backup Users Berformance Log Users Performance Monitor U Power Users Power Users Power Users Remote Desktop Users Backup Users	Description Administrators have complete and u Backup Operators can override secu Members are allowed to launch, acti Guests have the same access as me Members in this group can have som Members of this group have remote Power Users possess most administr Members can administer domain prin Members file replication in a domain Users are prevented from making ac Members who have administrative a Members who have view-only acces Group for the Help and Support Center			
	GiFix_Users GIIS_WPG GITelnetClients Gvmware	IIS Worker Process Group Members of this group have access t VMware User Group			
	J				

Computer Management Console

Highlight *System Tools > Groups* and double-click on the *Remote Desktop Users* group to launch the properties window.



Remote Desktop Users Properties
General
Remote Desktop Users
Description: bers in this group are granted the right to logon remotely
Members:
i user1 i user2 i user3 i user4 i user5 i user5
Add <u>R</u> emove
OK Cancel Apply

Remote Desktop Users Properties Window

Add all the users who will be logging onto the terminal server and select **OK**.

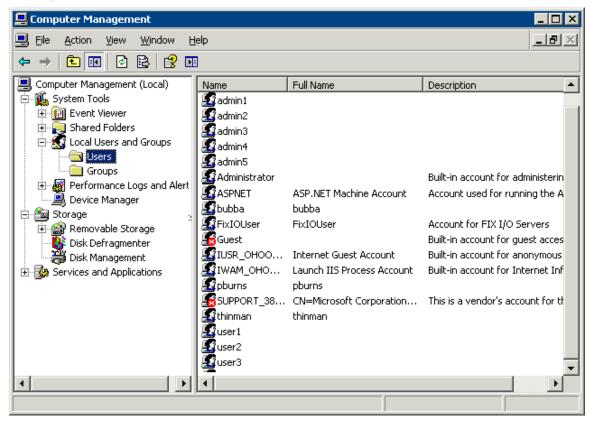


10.2. End Disconnected Sessions

Sessions that are disconnected and left on the terminal server should be configured to be logged off when they are disconnected. This can be done by user account or by terminal server.

User Account

Configure the desired user accounts by opening the Computer Management console by selecting *Start > Programs > Administrative Tools > Computer Management*.



Computer Management

Highlight *System Tools > Users* and double-click on the desired user to launch the user properties.



ser3 Properties	? ×		
Remote control Terminal Services Profile Dial-in General Member Of Profile Environment Sessions			
Use this tab to set Terminal Services timeout and reconnection settings <u>End a disconnected session:</u> 1 minute			
Ac <u>t</u> ive session limit:	Never 💌		
Idle session limit: When a session limit is reached or connection is broken: O Disconnect from session C End session			
Allow reconnection:			
	IK Cancel Apply		

User Properties – Sessions Tab

Select the Sessions tab. Set the End a disconnected session to 1 minute.

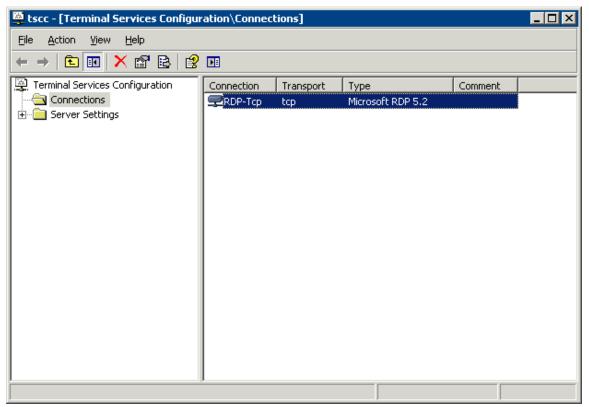
Set the *When a sessions limit is reached or connection is broken setting* to **End Session**.

Select *OK* to save the changes.



Terminal Server Settings

The terminal server can be configured to have all the sessions logged off after a disconnect in the **RDP-tcp properties**. Open the Terminal Services Configuration console by selecting *Start > Programs > Administrative Tools > Terminal Services Configuration*.



Terminal Services Configuration Console

Highlight *Connections* and double-click on *RDP-tcp* to launch the **RDP-tcp Properties** window.



P-Tcp Properties	? ×			
Remote Control Client Settings General Logon Settings Use this tab to set Terminal Services ti	Network Adapter Permissions Sessions Environment			
☑ ☑verride user settings End a disconnected session:	1 minute			
Active session limit: Never				
 Override user settings When session limit is reached or concerning Disconnect from session End session 	onnection is broken:			
 Override user settings Allow reconnection: From any client From previous client 				
OK	Cancel <u>Apply</u>			

RDP-tcp Properties

Select the **Sessions** tab. Check the *Override user settings* checkbox and set the *End a disconnected session* to 1 minute.

Check the *Override user settings* checkbox and set the *When a sessions limit is reached or connection is broken setting* to End Session.

Select **OK** to save the changes.

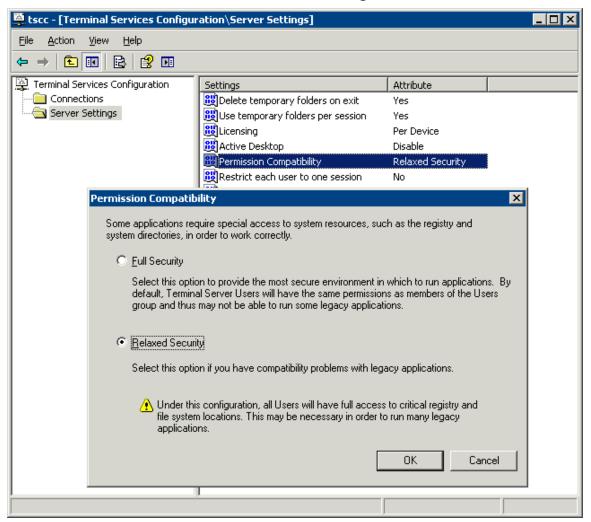
This will make every remote RDP user logoff when they disconnect.



10.3. Set Relaxed Security

Windows 2000 and Windows 2003 have a Full Security option that can interfere with HMI/SCADA operation. When the 200/2003 Full Security model is used all HMI users will need to be administrators. To allow users to run without being an administrator, set the terminal server to the Relaxed Security based on the NT 4.0 security model.

Open the Terminal Services Configuration console by selecting *Start > Programs > Administrative Tools > Terminal Services Configuration*.



Terminal Services Configuration Console

Highlight the *Server Settings* on the left and double-click the *Permission Compatibility* on the right.

Select the *Relaxed Security* radio button and select OK.



10.4. Apply Group Permissions

An iFix Users group must be created and the iFix users must be added and be granted access permission. It is recommended that iFix users be members of the **Power User** group.

Open the Computer Management console by selecting *Start > Programs > Administrative Tools > Computer Management*.

📮 Computer Management				
Eile Action View Window Help				
Computer Management (Local) Computer Management (Local) System Tools Computer Viewer Shared Folders Cocal Users and Groups Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Users Cocal Use	Name Administrators Administrators Backup Operators Distributed COM Users Guests Network Configuration Performance Log Users Performance Monitor U Power Users Print Operators Remote Desktop Users Print Operators Replicator Users DHCP Administrators DHCP Users HelpServicesGroup Fitx_Users IIS_WPG TelnetClients L_vmware	Description Administrators have complete and u Backup Operators can override secu Members are allowed to launch, acti Guests have the same access as me Members in this group can have som Members of this group have remote Power Users possess most administr Members can administer domain prin Members in this group are granted t Supports file replication in a domain Users are prevented from making ac Members who have view-only acces Group for the Help and Support Center IIS Worker Process Group Members of this group have access t VMware User Group		

Computer Management

Right-click on *Groups* and select *New Group*.



New Group			? ×
<u>G</u> roup name:	iFix_Users		
Description:			
<u>M</u> embers:			
	- 1		
<u>Add</u>	<u>R</u> emove		
		<u>C</u> reate	Cl <u>o</u> se

Add New Group

Name the group and add members.



iFix_Users Properties	? ×
General	
iFix_Users	
D <u>e</u> scription:	
Members:	
iser1 iser2 iser3 iser4 iser5 iser5	
Add <u>R</u> emove	
OK Cancel Ap	ply

Group Membership

Use the *Add* button to add users.

Add the group to the RDP settings in the **Terminal Services Configuration** console.

Open the Terminal Services Configuration console by selecting *Start > Programs > Administrative Tools > Terminal Services Configuration*.



🚆 tscc - [Terminal Services Configuration\Connections]					
Eile <u>A</u> ction <u>V</u> iew <u>H</u> elp					
Terminal Services Configuration		Transport tcp	Type Microsoft RDP 5.2	Comment	

Terminal Services Configuration

Double-click on *RDP-tcp* to open the **RDP-tcp Properties**.



RDP-Tcp Propertie	s		? ×		
General Remote Control	Logon Settings Client Settings	Sessions Network Adapter	Environment Permissions		
<u>G</u> roup or user nam	Group or user names:				
	s (GREEN\Administr	ators)	<u> </u>		
	iREEN\iFix_Users)				
LOCAL SERVICE					
		A <u>d</u> d	<u>R</u> emove		
Permissions for iFi	(Users	Allow	Deny		
Full Control					
User Access Guest Access					
Special Permiss	ions		H		
		_	_		
For special permissions or for advanced settings, Advanced					
	OK	Cancel			

TCP-rdp Properties

Select the **Permissions** tab. Add the new group by selecting the *Add* button.

Highlight the new group and set the **Full Control**, **User Access**, and **Guest Access** to *Allow*.

Select *OK* to accept changes.