



AutomaTech Application Note – July 2015

Installing Active Directory Domain Services (AD DS), Remote Desktop Services (RDS), GE Advantage Licensing, and GE Proficy SCADA Thin Clients on Windows Server 2012 R2

SUMMARY

This application note provides a high level overview for deploying Thin Client (Remote Desktop Services) Proficy HMI/SCADA Clients under Microsoft's Windows Server 2012 R2 Operating System. The following topics are covered in this application note:

- 1. Installing and Configuring Active Directory Domain Services (AD DS) on a Domain Controller Server computer running Windows Server 2012 R2
- 2. Installing, Configuring, and Licensing Remote Desktop Services (RDS) on a Remote Desktop Server computer running Windows Server 2012 R2
- 3. Installing, Configuring, and Activating GE Advantage Licensing on a Local License Server for use with GE Proficy SCADA Thin Clients
- 4. Overview of Installing and Configuring GE Proficy HMI/SCADA iFIX for use in a Remote Desktop Services Environment
- 5. Overview of Installing and Configuring GE Proficy HMI/SCADA CIMPLICITY for use in a Remote Desktop Services Environment





This application note assumes you have a solid understanding of Microsoft Windows Operating Systems, Networking, Virtualization, GE Proficy HMI/SCADA products, and that your HMI/SCADA infrastructure has already been established. A simplified architecture of the computers used in this application note are depicted below.



The following conditions have been taken into account in the writing of this application note:

- GE Intelligent Platforms & AutomaTech recommend that the Thin Client/Remote Desktop Server exist on a separate, dedicated Server (physical or virtual) from the HMI/SCADA Server.
- Remote Desktop Services infrastructure requires that all Servers join a Domain under the Windows Server 2012 R2 Operating System.
- Remote Desktop Services role cannot co-exist with an Active Directory Domain Controller role under the Windows Server 2012 R2 Operating System.
- As a result of the conditions outlined above, this application note will walk through the process to setup two Windows 2012 R2 Servers: a Domain Controller Server and a Remote Desktop Server referred to throughout.
- The Windows 2012 R2 Operating Systems Domain Controller Server and Remote Desktop Server have been preinstalled and setup with a default configuration.





1. Installing and Configuring Active Directory Domain Services (AD DS) on a Domain Controller Server computer running Windows Server 2012 R2

In the following steps you will walk through the process to setup the Active Directory Domain Services (AD DS) Role on the Domain Controller Server computer running Windows Server 2012 R2. In order to setup the Domain Controller Server you will need to understand the IP schema of the network. It is common to use a DHCP Server in the network for automatically assigning IP addresses to Client computers. A Domain Controller must be configured with a Static IP Address, and it is best practice to assign Static IP Addresses to Servers.

This PC	Host Name: IP Address: User Name:	PSRV12DC 192.168.168.26 Administrator	
		Windows Server 2012 R2	
		•	9 ()

STEP 1: Login to your Domain Controller Server computer as the local Administrator, as pictured below.





STEP 2: If you are using a single Domain Controller you will also need to specify the Preferred DNS server IP Address as the Server's own IP Address, as pictured below. This step is required for the Active Directory Role to successfully install since the Active Directory service requires a DNS server installed somewhere on the network. If you do not have a DNS server installed on the network, the installation process will automatically install the DNS role on this machine.

Internet Protocol Version	4 (TCP/IPv4) Properties
General	
You can get IP settings assigned auton this capability. Otherwise, you need to for the appropriate IP settings.	
O <u>O</u> btain an IP address automatical	у
• Use the following IP address:	
IP address:	192 . 168 . 168 . 26
S <u>u</u> bnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.168.1
Obtain DNS server address autom	natically
• Use the following DNS server add	resses:
Preferred DNS server:	192 . 168 . 168 . 26
<u>A</u> lternate DNS server:	
Validate settings upon exit	Ad <u>v</u> anced
	OK Cancel

STEP 3: You will now be ready to add the Active Directory role. Launch the **Server Manager** by clicking the icon pinned to the Task Bar. After a few moments the Dashboard will refresh with a complete list of installed Roles.

1991 (File)		Server Manager	
Server N	lanager 🕨 Dashboard		• 🗊 🏲 Manage Iools View Help
 I Doshboard Local Server All Servers File and Storage Services ▷ IS 	QUICK START QUICK	figure this local server dd roles and features dd other servers to manage reate a server group onnect this server to cloud services at 1 To Manageability Events Services Performance BPA results	1 Image: All Servers 1 Image: Manageability Events Services Performance DPA results Image: Manageability
Server Manager			- Ra 12 Ga





STEP 4: Click the **Add roles and features** link to launch the Add Roles and Features Wizard. Select the Installation Type as **Role-based or feature-based installation** and click **Next**.



STEP 5: Select your local server name from the Server Pool and click Next.

b	Add	Roles and Features W	/izard	- 🗆 X
Select destinati	on server		DESTIN	IATION SERVER PSRV12DC
Before You Begin Installation Type Server Selection	Select a server or a v Select a server fr Select a virtual h	om the server pool	o install roles and features.	
Server Roles Features Confirmation Results	Server Pool			
Results	Name PSRV12DC	IP Address 192.168.168.26	Operating System Microsoft Windows Server 2012 R2 Stand	lard
	Add Servers comma	vers that are running Wind	lows Server 2012, and that have been adde ine servers and newly-added servers from v	
		< <u>P</u> rev	ious <u>N</u> ext > <u>I</u> nstall	Cancel





STEP 6: Add the **Active Directory Domain Services** Role from the Server Roles list and click **Next**. Click **Next** on the Features list since you will not be adding new Features. You will be presented with some useful information to note on the AD DS screen, click **Next** to proceed.

2	Add Roles and Features Wizard	_ 🗆 X
Active Directory [Before You Begin Installation Type Server Selection Server Roles Features AD DS Confirmation Results		DESTINATION SERVER PSRV12DC puters, and other devices and facilitates resource enabled applications such as Group Policy. rer outage, install a ave a DNS server e.
	< Previous Next >	Install Cancel

STEP 7: On the Confirmation screen, click **Install** to install the Active Directory Services role and you will see the installation process begin. Upon completion you can click **Close** to complete the installation process.

b	Add Roles and Features Wizard	_ D X
Installation progre	255	DESTINATION SERVER PSRV12DC
Before You Begin	View installation progress	
Installation Type	Feature installation	
Server Selection		
Server Roles	Configuration required. Installation succeeded on PSRV12DC.	
Features	Active Directory Domain Services	^
AD DS	Additional steps are required to make this machine a domain controller.	
Confirmation	Promote this server to a domain controller	
Results	Group Policy Management	
	Remote Server Administration Tools Role Administration Tools	=
	AD DS and AD LDS Tools	
	Active Directory module for Windows PowerShell	
	AD DS Tools	
	Active Directory Administrative Center	
	AD DS Snap-Ins and Command-Line Tools	~
	You can close this wizard without interrupting running tasks. View task pr page again by clicking Notifications in the command bar, and then Task [
	Export configuration settings	
	< Previous Next > C	lose Cancel





STEP 8: You will notice the yellow exclamation point in the Notifications area indicating additional configuration is required. Click the **Promote the Domain Controller** link to launch the Active Directory Domain Services Configuration Wizard.

		Server Manager		_ 5 X
Server Ma	anager • Dashboard		• 🕝 🍢 Manag	e Tools View Help
Server Ma Server Ma Server All Server All Servers All Servers All Storage Services. If is	WELCOME TO SERVER MANAGER	igure this local server id roles and features id other servers to manage eate a server group mnect this server to cloud service inf File and Storage 1 Services 1 Wanageability Events Services	Post-deployment Configura. Post-deployment Configuration required to Active Directory Domain Services at PSRV12DC Promote this server to a domain controller Presture installation Configuration required. Installation succeeded on PSRV12DC. Add Roles and Features Task Details	Taols View Holp
Server Manager	Performance BPA results	Performance BPA results	Performance Performance BPA results BPA results	- 16 19 6

STEP 9: Select the **Add a new forest** option and specify a **Root domain name** and click **Next**. In this example AutomaTech.local will be used as the domain name.

a .	Active Directory Domain Services (Configuration Wizard	_ 🗆 X
Deployment Conf	iguration		TARGET SERVER PSRV12DC
Deployment Configuration Domain Controller Options Additional Options Paths Review Options Prerequisites Check Installation Results	Select the deployment operation Odd a gomain controller to an existin Odd a new domain to an existing for Odd a new forest Specify the domain information for this a Root domain name: More about deployment configurations	est	
	more about deployment configurations		
	< <u>P</u> re	evious <u>N</u> ext > <u>I</u> nsta	Cancel





STEP 10: On the Domain Controller Options screen, select the **Forest functional level** and **Domain functional level** to meet your network's requirements. You will notice the Domain Controller will include DNS Server capability by default. Specify the **Directory Services Restore Mode (DSRM)** password and click **Next**.

🚡 Active Directory Domain Services Configuration Wizard 🗕 🗖 🗙			
Domain Controller Options			TARGET SERVER PSRV12DC
Deployment Configuration Domain Controller Options DNS Options Additional Options Paths Review Options Prerequisites Check Installation Results	Select functional level of the new forest Forest functional level: Domain functional level: Specify domain controller capabilities Ogmain Name System (DNS) server G (slobal Catalog (GC) and and a controller (RODC) Type the Directory Services Restore Moo Passworg: Confirm password:	Windows Server 2012 R2 Windows Server 2012 R2	
< <u>Previous</u> <u>Next</u> > <u>Install</u> Cancel			

STEP 11: Click **Next** to accept the default DNS Options. Confirm and update the **NetBIOS domain name** if necessary and click **Next**.

b	_ 🗆 X		
Additional Option	IS		TARGET SERVER PSRV12DC
Deployment Configuration Domain Controller Options DNS Options Additional Options Paths Review Options Prerequisites Check Installation Results	Verify the NetBIOS name assigned to th The NetBIOS domain name:	e domain and change it if necessary AutomaTech	
	More about additional options		
	< <u>P</u> r	evious <u>N</u> ext > <u>I</u> nsta	Cancel





STEP 12: Click **Next** on the Paths screen to accept the default Paths and the Review Options screen will be displayed. Click **Next** to perform a Prerequisites Check. If all the rules checks pass you will see a note and green check mark that all prerequisite checks passed successfully. Click **Install** to complete the Domain Controller Promotion process.

la 1	Active Directory Domain Services Configuration Wizard
Prerequisites Chec	
Deployment Configuration Domain Controller Options	ed successfully. Click 'Install' to begin installation. Show more X Prerequisites need to be validated before Active Directory Domain Services is installed on this computer
DNS Options Additional Options	Rerun prerequisites check
Paths	▲ <u>Vi</u> ew results
Review Options	Windows Server 2012 R2 domain controllers have a default for the security setting named "Allow cryptography algorithms compatible with Windows NT 4.0" that prevents
Prerequisites Check	weaker cryptography algorithms when establishing security channel sessions.
Installation	For more information about this action and Knowledge Base while 042564 (http://
Results	For more information about this setting, see Knowledge Base article 942564 (http:// go.microsoft.com/fwlink/?Linkld=104751).
	A delegation for this DNS server cannot be created because the authoritative parent zone cannot be found or it does not run Windows DNS server. If you are integrating with an existing DNS infrastructure, you should manually create a delegation to this DNS server in the parent zone to ensure reliable name resolution from outside the domain "AutomaTech.local". Otherwise, no action is required.
	1 If you click Install, the server automatically reboots at the end of the promotion operation.
	More about prerequisites
	< Previous Next > Install Cancel

STEP 13: The Server will automatically restart when applying changes. Upon restart, notice you will now need to login as the Domain account including the Domain prefix.

	€ AutomaTech\Administrator	
କ ଓ	Windows Server 2012 R2	





STEP 14: After logging in to the Domain, return to the Server Manager. The new AD DS Role has been added to the Server Manager Dashboard. You can click the link or status card for additional details about the Server Role.

2	Server Manager		- 6 ×
€ Server №	anager + Dashboard	• 🕄 🚩 Manage Iools	⊻iew <u>H</u> elp
Dashboard Local Server All Server All Servers All Servers AD DS ONS ONS File and Storage Services ▷ Re IIS	WELCOME TO SERVER MANAGER Image: Configure this local server Image: Conf	IIS 1	Hide
	Manageability Events Services Performance BPA results BPA results Construction and Construction	Manageability Events Services Performance BPA results	v
Server Manager			- 18 12 6

STEP 15: Click the **Tools** link at the top of the Server Manager and observe the newly added tools. Click the **Active Directory Users and Computers** link to launch the management console.

Dashboard Local Server	WELCOME TO SERVER MANAGER			Active Directory Domains and Trusts Active Directory Module for Windows PowerShell Active Directory Sites and Senices
III All Servers III AD DS 企 DNS IIII File and Storage Services ▷ IIIIS	QUICK START 2 Add in 3 Add o WHATS NEW 4 Create	ure this local server oles and features other servers to manage e a server group ect this server to cloud services		Active Directory Users and Computers ADSI Edit Component Services Computer Management Defragment and Optimize Drives Disk Cleanup DNS Event Viewer Group Policy Management Internet Information Services (II5) Manager ISCSI Initiator Local Security Policy Microsoft Azure Services ODRC Data Sources (82-bit) OOBC Data Sources (82-bit) OOBC Data Sources (84-bit)
	AD DS 1 Manageability Events Services Performance BPA results	DNS 1 Compared bility Events Services Performance BPA results	File and Storage 1 Services 1 Manageability Events Services Performance BPA results	Performance Monitor Resource Monitor Security Configuration Wizard Services System Information Task Scheduler Windows Filewall with Advanced Security Windows Kemory Diagnostic Windows PowerShell





STEP 16: Expand the **Domain** name and the **Users** folder to view a list of configured Users, Groups, and other resources. This is where you would configure various permissions and functions of each resource in the Domain. For the purposes of this example a single Domain User will be added.

File Antine Many Hale	Active Directory Users a	and compatible	
<u>File Action View H</u> elp	1 🔧 🗽 🖆 🍸 🗾 🍇		
 Active Directory Users and Computers (P) Saved Queries Buitin Computers Computers Computers ForeignSecurityPrincipals Managed Service Accounts Users 	Name Administrator Administrator Administrator Conception Concepti	Type Security Group - Domain Local Security Group - Domain Local Security Group - Omain Local Security Group - Global Security Group - Universal Security Group - Universal Security Group - Global Security Group - Global	Description Built-in account for administering the comp. Members in this group can have their passw Members of this group that are domain com Members of this group that are domain com Members in this group cannot have their pa DNS deministrators Group DNS clients who are permitted to perform d Designated administrators of the domain All domain controllers in the domain All domain users Designated administrators of the enterprise Members of this group are Read-Only Dom Members in this group can modify group p Built-in account for guest access to the com. Local Administrator Members of this group are afforded additio Servers in this group can access remote acc Members of this group are Read-Only Dom Designated administrators of the schema Members of this group can access remote acces.

STEP 17: Right-click the **Users** folder, select **New**, and select **User** to create a new User. Complete the next three screens with the User details and credentials and click **Finish** to create the User.

• 🔿 🙍 🔏 🖬 🔏 🖬 •	🛓 🛛 🗊 🔧 📚 🛍 🔻 🗖 😣		
Active Directory Users and Computers [P Active Directory Users and Computers [P Bellin Computers	Name 1 Administrator 1 Administrator 1 Administrator 1 Administrator 1 Administrator 1 Cert Publishers 2 Concable Domain Controllers 2 Denied RODC Password Replication Group 2 DnsAdmins 2 Domain Computers 2 Computer 2 Contact 2 InetGrgPerson msDS-ResourcePropertyList msDS-ResourcePropertyList 2 Printer 2 Ver 3 Shared Folder 2	Security Group - Domain Local Security Group - Global Security Group - Domain Local Security Group - Universal	Description Description Members in this group can have their passw Members of this group are permitted to pub Members of this group are permitted to pub Members of this group are domain con Members in this group cannot have their pa DNS Administrators Group DNS clients who are permitted to perform d Designated administrators of the domain All workstations and servers joined to the do All domain controllers in the domain All domain users Designated administrators of the enterprise Members of this group are Read-Only Dom Members of this group are afforded additio Servers in this group can access remote acc Members of this group are Read-Only Dom Designated administrators of the enterprise





STEP 18: In this example the Domain User 'Proficy' has been created and will be used to access the Remote Desktop Server in later steps. By default all Domain Users will be given Remote Desktop Server access, so at this point you could further define your security groups and roles if desired. These steps have completed the Domain Server configuration required at this time.

3	Active Directory Users	and Computers	
<u>F</u> ile <u>A</u> ction <u>V</u> iew <u>H</u> elp			
⊨ 🔿 🙍 🐺 🤞 🖬 🙀	🗟 🔟 📷 🧏 🐮 🗑 🖉 🚨 📚		
 Active Directory Users and Computers [F Saved Queries AutomaTech.local Builtin Computers Bomain Controllers ForeignSecurityPrincipals Managed Service Accounts Users 	Name Administrator Allowed RODC Password Replication Group Cert Publishers Conceable Domain Controllers Denied RODC Password Replication Group Domain Computers Domain Computers Domain Controllers Domain Cuests Domain Guests Domain Guests Domain Guests Domain Guests Domain Cuests Domain Cues	Type User Security Group - Domain Local Security Group - Domain Local Security Group - Olomain Local Security Group - Global Security Group - Universal Security Group - Universal Security Group - Universal Security Group - Global Security Group - Global	Members of this group are permitted to pub. Members of this group that are domain com. Members in this group cannot have their pa. DNS Administrators Group DNS clients who are permitted to perform d Designated administrators of the domain All workstations and servers joined to the do. All domain controllers in the domain All domain users Designated administrators of the enterprise Members of this group are Read-Only Dom Members in this group can modify group p Built-in account for guest access to the com. Local Administrator
	& WinRMRemoteWMIUsers_	Security Group - Domain Local	
())) >			





2. Installing, Configuring, and Licensing Remote Desktop Services (RDS) on a Remote Desktop Server computer running Windows Server 2012 R2

Now that the Domain Controller Server setup has completed you will need to configure the Remote Desktop Server. The Remote Desktop Server will need to be joined to the Domain created in the previous section, have the necessary Roles enabled, and setup with the appropriate licensing.

Nu PC	Host Name: IP Address: User Name:	PSRV12RDS 192.168.168.27 Administrator	
		Windows Server 2012 R2	
= 2			• Re 12 Ge

STEP 1: Login to your Remote Desktop Server computer as the local Administrator, as pictured below.





STEP 2: Verify that you have the appropriate network settings configured and that the Domain Controller Server's IP address is configured for the **Preferred DNS server**, as pictured below.

Internet Protocol Version	4 (TCP/IPv4) Properties				
General					
	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.				
O <u>O</u> btain an IP address automatica	lly				
• Use the following IP address:					
IP address:	192 . 168 . 168 . 27				
S <u>u</u> bnet mask:	255.255.255.0				
Default gateway:	192 . 168 . 168 . 1				
Obtain DNS server address autor	matically				
• Use the following DNS server add	dresses:				
Preferred DNS server:	192 . 168 . 168 . 26				
<u>A</u> lternate DNS server:	· · ·				
Ualidate settings upon exit	Ad <u>v</u> anced				
OK Cancel					

STEP 3: You will now need to join the Remote Desktop Server to the Windows Domain created in the previous steps. Launch the **Server Manager** application from the Taskbar and click the **Local Server** link on the left side to view a snapshot of the Local Server configuration.

1		Serve	r Manager		- 5	×
€ Server Ma	anager • Local Ser	ver		• ② 🏲 Manage Iools	<u>V</u> iew <u>H</u> e	elp
Dashboard	PROPERTIES For PSRV12RDS				TASKS 💌	
Local Server All Servers File and Storage Services	Computer name Workgroup	PSRV12RDS WORKGROUP	Last installed updates Windows Update Last checked for updates	Never Not configured Never		
io us	Windows Firewall Remote management Remote Desktop NIC Teaming Ethernet	Public: Off Enabled Disabled 192,160,168,27, IPv6 enabled	Windows Error Reporting Customer Experience Improvement Program IE Enhanced Security Configuration Time zone Product ID	Off Not participating Off (UTC-05:00) Eastern Time (U5 & Canada) 00252-00107-9684-AA335 (activated)		
	Operating system version Hardware information	Microsoft Windows Server 2012 R2 Standard VMware, Inc. VMware Virtual Platform	Processors Installed memory (RAM) Total disk space	Intel(R) Xeon(R) CPU X5650 @ 2.67GHz, Intel(R) Xeon(4 G8 39.66 GB	(R) CPU 3	
	¢		ш		>	
	EVENTS All events [3 total	• (i) • (ii)			TASKS 💌	
	Server Name ID Severity	Source Log Microsoft-Windows-DNS Client Events Syst			9	
	PSRV12RDS 34001 Error PSRV12RDS 34001 Error	Microsoft-Windows-SharedAccess_NAT Syst Microsoft-Windows-SharedAccess_NAT Syst				
🗄 占 🖉 🚞					• 😼 🗄	9





STEP 4: Click the Computer name or Workgroup link to open the System Properties window.

	System Properties				
Computer Name Hardw	are Advanced Remote				
Windows use on the netwo	es the following information to identify your computer rk.				
Computer description:					
	For example: "IIS Production Server" or "Accounting Server".				
Full computer name:	PSRV12RDS				
Workgroup:	WORKGROUP				
Workgroup: WORKGROUP To rename this computer or change its domain or Change workgroup, click Change.					
	OK Cancel Apply				

STEP 5: Click the **Change** button to launch the Computer Name/Domain Changes window. Enter the **Domain Name** that was created in the previous section.

Computer Name/Domain Changes
You can change the name and the membership of this computer. Changes might affect access to network resources.
Computer name:
PSRV12RDS
Full computer name: PSRV12RDS
<u>M</u> ore
Member of
● <u>D</u> omain:
Automa Tech.local
○ <u>W</u> orkgroup:
WORKGROUP
OK Cancel





STEP 6: Click **OK** and you will be prompted with the Windows Security window, enter the Username and Password for your **Domain Administrator** account, as pictured below.

	Windows Security X
	Name/Domain Changes e and password of an account with permission to join the
P	Administrator •••••• Domain: AutomaTech.local
	Connect a smart card
	OK Cancel

STEP 7: Click **OK** to authorize the addition of the computer to the Domain, you will be prompted with a welcome message, as pictured below. Click **OK** and click **OK** again when prompted that you must restart your computer to apply these changes and then **restart the computer**.







STEP 8: After the computer has restarted, you will need to login as the Domain User and not the Local User. Click the **Other User** link on the Windows Login screen. Specify your Administrator credentials including the new Domain Name prefix to login to the server, as pictured below.

	Other user AutomaTech\Administrator Sign in to: AutomaTech How do I sign in to another domain?	
6 P	Windows Server 2012 R2	

STEP 9: You will now be ready to add the Remote Desktop Services role. Launch the **Server Manager** by clicking the icon pinned to the Task Bar. After a few moments the Dashboard will refresh with a complete list of installed Roles.

ē.		Server Manag	ger		_ 6 ×
Server M	anager 🔸 Dashboard			• 🕄 🏲 Manage Iools	<u>V</u> iew <u>H</u> elp
 I Dashboard Local Server All Servers File and Storage Services ▷ IS 	QUICK START 2 A 3 A WHAT'S NEW 4 C	figure this local server dd roles and features dd other servers to manage reate a server group onnect this server to cloud servi ae 1 BIS 1 Manageability Events Services Performance BPA results] [] [All Servers All All Servers Services Performance BPA results	Hide
😑 📥 🛛 🚞					- P 🗄 😘





STEP 10: Click the **Add roles and features** link to launch the Add Roles and Features Wizard. Select the Installation Type as **Remote Desktop Services Installation** and click **Next**.



STEP 11: Select the **Quick Start** option for a typical deployment on a single Remote Desktop Server. If you plan to create a distributed deployment you would choose the Standard deployment option and configure some additional options. Click **Next** to continue.







STEP 12: Choose the Session-based desktop deployment option on the Deployment Scenario screen and click Next.

à	Add Roles and Features Wizard	_ 🗆 🗙
Select deploymer		DESTINATION SERVER Quick Start selected
Before You Begin Installation Type	Remote Desktop Services can be configured to allow users to connect to virtual o programs, and session-based desktops.	desktops, RemoteApp
Deployment Type	\bigcirc <u>V</u> irtual machine-based desktop deployment	
Deployment Scenario	Virtual machine-based desktop deployment allows users to connect to virtual that include published RemoteApp programs and virtual desktops.	desktop collections
Server Selection	Session-based desktop deployment	
Confirmation Completion	Session-based desktop deployment allows users to connect to session collect published RemoteApp programs and session-based desktops.	ions that include
	< <u>P</u> revious <u>N</u> ext > De	ploy Cancel

STEP 13: You will be prompted that the Quick Start will install the RD Connection Broker, RD Web Access, and RD Session Host services on the same server. Select your local server from the Server Pool and click **Next.**

a	Add Roles and Features Wizard	_ 🗆 X
Select a server		DESTINATION SERVER Quick Start selected
Before You Begin Installation Type Deployment Type	The Quick Start will install the RD Connection Broker, RD Web Access, and F on the same server.	(D Session Host role services
Deployment Scenario	Server Pool Selected	
Server Selection	Filter:	er TOMATECH.LOCAL (1)
Completion	Name IP Address Operating PSRV12R	
	PSRV12RDS.AutomaTec 192.168.168.27	
	1 Computer(s) found 1 Comput	er(s) selected
	 The credentials of the AutomaTech\Administrator account will be used deployment. 	to create the
	< <u>P</u> revious <u>N</u> ext >	Deploy Cancel





STEP 14: The Confirmation screen will perform a rules check and notify you that the server must be restarted to complete the installation. Check the **Restart the destination server automatically if required** check box and click the **Deploy** button.

<text><text><text><text><text><text><text><text></text></text></text></text></text></text></text></text>	a	Add Roles and Features Wizard
✓ Restart the destination server automatically if required	Confirm selection Before You Begin Installation Type Deployment Type Deployment Scenario Server Selection Confirmation	Complete the installation, the destination servers must be restarted. To complete the installation, the destination servers must be restarted. The following role services will be installed on the server named PSRV12RDS.AutomaTech.local. RD Connection Broker RD Web Access RD Session Host The server will be restarted after the role services are installed. The Domain Users security
< Previous Next > Deploy Cancel		

STEP 15: The installation process will begin and display the progress, as pictured below. When the initial role services installation is complete the server will restart automatically.

à	Add Roles and F	eatures Wizard	_ 🗆 X
View progress			DESTINATION SERVER PSRV12RDS.AutomaTech.local
Before You Begin	The Remote Desktop Services dep	loyment scenario is being installed.	
Installation Type	Server	Progress	Status
Deployment Type	Remote Desktop Services role s	ervices	
Deployment Scenario	PSRV12RDS.AutomaTech.local		In Progress
Server Selection		Installing	
Confirmation	Session collection		
Completion	PSRV12RDS.AutomaTech.local		Pending
	RemoteApp programs		
	PSRV12RDS.AutomaTech.local		Pending
		< Previous Next >	Deploy Cancel





STEP 16: After the server restarts, login again as the Domain Administrator and return to the **Server Manager**. You will see the installation progress continue. Upon completion, click the **Close** button to acknowledge that the installation succeeded.

È	Add Roles and Feat	tures Wizard	_ D X
View progress	The Remote Desktop Services deployn	ment crenario is being installed	DESTINATION SERVER Quick Start selected
	Server	Progress	Status
	Remote Desktop Services role servi	rices	
	PSRV12RDS.AutomaTech.local	Su	ucceeded
	Session collection PSRV12RDS.AutomaTech.local RemoteApp programs		ucceeded
	PSRV12RDS.AutomaTech.local		ccceeded
		< <u>P</u> revious <u>N</u> ext >	Close Cancel

STEP 17: Click on the new **Remote Desktop Services** Role available in the Server Manager Dashboard. You will see the Remote Desktop Services deployment overview screen.







STEP 18: You need to enable Licensing in order for Users to access the Server. Click the green **RD Licensing plus sign** to launch the Add RD Licensing Servers window. Select the Local Server from the Server Pool.

B	Add RD Licensing Servers
Select a server	Add RD Licensing Servers This wizard allows you to add RD Licensing servers to your deployment. Select the servers on which to install the RD Licensing role service. Server Pool Filter: Name IP Address Operat PSRV12RDS.AutomaTec 192.168.168.27
	< Image: Computer(s) found 1 Computer(s) found 1 Computer(s) selected The credentials of the AutomaTech\Administrator account will be used to add the servers. < Previous Next > Add

STEP 19: Click **Next** and you will be prompted with a confirmation that The RD Licensing role service will be installed on the servers and added to the deployment. Click the **Add** button and you will be notified when the Remote Desktop Licensing role service installation succeeded, as pictured below.

L	Add RD Licensin	g Servers		x
View progress	The role service is being installed or Server	n the following servers. Progress	Status	
Results	Remote Desktop Licensing role s		Status	
	PSRV12RDS.AutomaTech.lo		Succeeded	
	Review RD Licensing properties for	the deployment		
		< Previous Next >	Close Can	cel





STEP 20: Click **Close** to complete the installation. You will now see the blue ribbon badge indicating the RD Licensing has been installed, as pictured below.

	Server Manager	- 0
⊖⊙• Server N	Manager + Remote Desktop Services + Overview	• 🗇 🏲 Manage Iools View H
Overview	GET STARTED WITH REMOTE DESKTOP SERVICES	
Servers Collections QuickSessionCo	OUICK STAKT OUICK STAKT Virtual machine-based desktop deployment @ Add RD Virtualization Host servers ③ Create virtual desktop collections	 Services deployment Session-based desktop deployment Add RD Session Host servers Create session collections
		■ ■
	RD Web Access RD Gateway RD Licensing	Server FODN Installed Role Service PSRV12RDS.AUTOMATECHLOCAL RD Connection Broker PSRV12RDS.AUTOMATECHLOCAL RD Session Host PSRV12RDS.AUTOMATECHLOCAL RD Licensing PSRV12RDS.AUTOMATECHLOCAL RD Web Access
	RD Connection Broker	- Pr@

STEP 21: Click the **Tools** link at the top of the Server Manager and observe the newly added tools for Terminal Services. Click the **Remote Desktop Licensing Manager** link to launch the management console.







STEP 22: Expand the view, you will notice the RD Licensing Manager indicates that the server is not yet activated.

9		R	D Licensing Manag	er	_ D X
<u>A</u> ction <u>V</u> iew <u>H</u> elp					
- All servers	Name	Activation Status	Discovery Scope	Configuration	
Reports	PSRV12RDS	Not activated	Domain	Review	
< III >>					

STEP 23: Right-click on the Local Server and select Activate Server to launch the Activate Server Wizard and click Next on the Welcome screen to start the activation process.

94			RD	Licensing Manag	jer			-	x
Action View Help									
All servers	Name	Activation		Discovery Scope		Configuration			
PSRV12RDS	PSRV12RDS	Not activa	Refresh	Domain	F	R <u>eview</u>			
Reports				Configuration					
				icenses					
		Г		e Server					
			Advand	ed	•				
			Create	Report	•				
			Delete	Reports					
			Manag	e Licenses					
			Propert	ties					
< III >									





STEP 24: Select the appropriate Connection Method from the list and click **Next**. Licensing can be activated automatically through your Internet connection, through a web browser, or over the phone.

	Activate Server Wizard	×
Connection Method Select the most approp	priate connection method.	9
	d selected for license server activation will also be used to contact nouse when licenses are installed.	
To change the conner the license server's Pro	ction method after activation, go to the Connection Method tab of operties dialog box.	
Connection method:		
Automatic connection	(recommended) v	
Description:	This is the recommended method. The license server will automatically exchange the required information with the Microsoft Clearinghouse over the Internet.	
Requirements:	The computer must be able to connect to the Internet by using a Secure Sockets Layer (SSL) connection.	
	< <u>R</u> ack <u>N</u> ext >	Cancel

STEP 25: Complete the **Company Information** fields with the information that corresponds with to your Remote Desktop Licenses and click **Next.**

	Activate Server Wizard	x
Company Information Provide the requested	company information.	9
Enter your name, compan This information is require	y name, and country/region information. d to proceed.	
<u>First name:</u>		
Last name:		
<u>C</u> ompany:		
Country or <u>R</u> egion:	United States	
Name and corr assistance. Co	pany information is used only by Microsoft to help you if you need untry/Region is required to comply with United States export restrictions	
	< Back Next >	Cancel





STEP 26:	'ou will be prompted that the license server has been successfully activated.	Obtain your Remote Desktop
	Server Client Access License (CAL) keys and click Next to start the Install I	₋icenses Wizard.

Completing the Activate Server Wizard
You have completed the Activate Server Wizard.
 Status: The license server has been successfully activated.
To install licenses, click Next.
To postpone license installation, clear the Start Install Licenses Wizard now check box, and then click Finish.
Start Install Licenses Wizard now

STEP 27: Select the appropriate License program for your licenses and click Next.

	Activate Server Wizard	×
License Program Choose the appropriate	license program.	9 ₁
desktop in a Microsoft \	ecting to a Remote Desktop Session Host server or a virtual /rtual Desktop Infrastructure must have a valid license. Select ugh which you purchased your licenses.	
License program:	License Pack (Retail Purchase)	
Description:	This is a license purchased in preset quantities through a retail store or other reseller. The package may be labeled "Microsoft Windows Client License Pack".	
Format and location:	The license code from the License Pack will be required. The license code is a sequence of five sets of five alphanumeric characters.	
Sample:	1A2B3 1A2B3 1A2B3 1A2B3	
Verfy that your license i	nformation is similar to the sample before continuing.	
	< Back Next >	Cancel





STEP 28: Type in or Paste your license code(s) per your Microsoft Licensing Agreement and click **Next.** You will be notified that the licenses have been successfully activated, click **Finish** to close the activation wizard

Activate	Server Wiza	ard	x
License Code Enter the license code found in your product	packaging.		9
Type in the license code for each license you entering each license code. The format for th digits. License code:	i have purchase e license code i	d, and then click Add after s 5 sets of 5 alphanumeric	
		Add	
Li <u>c</u> ense codes entered:			
License Code	Status	Product Type	
	Pending	Windows Server 2012	
< III		Edt Delete	
	<	Back Next >	Cancel

STEP 29: You will now see a summary of the Client Access License versions, types, and quantities in the RD Licensing Manager window. This server has been activated with 50 Per User RDS CALs, as pictured below.

%	RD Lice	ensing Manager					_ 🗆 X
Action View Help							
■ I servers	License Version and Type	License Program	Total Licenses	Available	Issued	Expiry Date	Keypack ID
B-II PSRV12RDS	🔄 Windows 2000 Server - Built-in TS Per Device CAL	Built-in	Unlimited	Unlimited	0	Never	2
	Windows Server 2012 - Installed RDS Per User CAL	Retail Purchase				Never	
Reports							
< III >			ш				>





STEP 30: Right-click the server name and select the **Review Configuration** option to open the Server Configuration window.

2			RD Lice	ensing Manager					_ □
Action View Help									
All servers		License Version and T		License Program	Total Licenses	Available	Issued	Expiry Date	Keypack ID
B SRV12RDS	D. (.).		ver - Built-in TS Per Device CAL	Built-in	Unlimited	Unlimited	0	Never	2
	Refresh		12 - Installed RDS Per User CAL	Retail Purchase	50	50	0	Never	3
Reports	Review Configura	tion							
Cal Industry	Install Licenses								
	Activate Server								
	Advanced	•							
	Create Report	•							
	Delete Reports								
	Manage Licenses								
	Properties								
	>	<							





STEP 31: Click the **Add to Group** button and you will be prompted to add the License Server to the Active Directory Domain Services Group. Click **Continue** to authorize the change on the Active Directory Server. When prompted that the License Server has been added to the License Servers group in Active Directory Domain Services, click **OK**.

	PSRV12RDS Configuration	x
License Server Name Discovery Scope: Do Database Location: (ange Scope
This licens Active Dire User CALs	Zerminal Server License Servers group in Active Directory	Add to Group
Usage of F This license Domain Se the Remot	Domain Services (AD DS), you must have Domain Admins privileges in AD DS.	
	ОК	Cancel
	RD Licensing Manager	x







STEP 32: You will now see the completed Server Configuration and have two green check marks confirming the licensing and activation process, click **OK** to accept the changes.

	PSRV12RDS Configuration	x
Discove	Server Name: PSRV12RDS ery Scope: Domain se Location: C:\Windows\System32\LServer\	Change Scope
	This license server is a member of the Terminal Server License Servers group in Active Directory Domain Services. This license server will be able to issue RDS Per User CALs to users in the domain, and you will be able to track or report the usage of RDS Per User CALs on this license server.	
	To issue RDS Per User CALs to users in other domains, this license server must be a member of the Terminal Server License Servers group in those domains.	
V	This license server is registered as a service connection point (SCP) in Active Directory Domain Services. The license server will appear in the list of known license servers in the Remote Desktop Session Host Server Configuration tool.	
	(OK	Cancel

%	RD Lic	ensing Manager					_ 🗆 X
Action View Help							
□ - in All servers	License Version and Type	License Program	Total Licenses	Available	Issued	Expiry Date	Keypack ID
PSRV12RDS	🖶 Windows 2000 Server - Built-in TS Per Device CAL	Built-in	Unlimited	Unlimited	0	Never	2
		Retail Purchase	50	50	0	Never	3
	ed						
Reports							
<			ш				>





STEP 33: Return to the Server Manager and expand the Remote Desktop Services Overview screen.

E.	Server Manager		- 6 X	ſ
Server Ma	anager + Remote Desktop Services + Overview	• 🕄 🏲 Manage Iook	<u>V</u> iew <u>H</u> elp	
Servers Servers Callections QuickSessionCo	anager * Remote Desktop Services * Overview GET STARTED WITH REMOTE DESKTOP SERVICES Image: Construction of the server services * Overview Image: Construction for the server	ervices deployment Session-based desktop deployment Add RD Session Host servers Create session collections DEPLOYMENT SERVERS	TASKS V	
= 1 2 🗎			• 18 19 16	2

STEP 34: Click the Tasks drop down button and select the Edit Deployment Properties option.







STEP 35: The Deployment Properties window will appear. If an RD Gateway is required in your deployment, you would configure it on this screen.

b	Deployment Properties
Configure the dep Show All RD Gateway - RD Licensing + RD Web Access + Certificates +	
	OK Cancel Apply

STEP 36: Click the RD Licensing section and select Per Device or Per User under the Remote Desktop licensing mode options that is relevant to your Microsoft licensing agreement. This server uses User CALs, so we will select the Per User mode, as pictured below. Click Apply to accept the changes for the RD Licensing mode.

2	Deployment Properties	-		×
Configure the dep	oloyment			
Show All RD Gateway + RD Licensing - RD Web Access + Certificates +	RD Licensing Select the Remote Desktop licensing mode: Per Device Per User Specify a license server, and then click Add: Select the order for the Remote Desktop license servers: The RD Session Host server or the RD Virtualization Host server sends to the specified license servers in the order in which you list them. PSRV12RDS.AutomaTech.local	Add requests for Move U Move Dor <u>R</u> emove	p vn] ;]
	OK	el <u>A</u>	pply]





STEP 37: The Deployment Properties window also provides information about the RD Web Access and RDS Certificates. As an optional step you can configure Certificates for the RDS Services in order to secure the connections. Click **OK** to accept the changes.

a	Deployment Properti	es		_ □	x
Configure the dep Show All RD Gateway + RD Licensing + RD Web Access + Certificates -	DIOYMENT Manage certificates A Remote Desktop Services deploym single sign-on, and establishing secur Current deployment certificate level i What is a certificate level? Role Service RD Connection Broker - Enable Sin	Deputyment Properties Dyment Manage certificates A Remote Desktop Services deployment requires certificates for server authentication, single sign-on, and establishing secure connections. Current deployment certificate level is Not Configured What is a certificate level? Role Service Level Status State RD Connection Broker - Enable Sing Not Configured RD Web Access Not Configured RD Gateway Unknown			
	Subject name: Not Applicable View Details This certificate is required for server a deployment. You can update this certificate by cre certificate. Create new certificate	ating a new certificate		an existing	
		OK	Cancel	Apply	/

STEP 38: Click the **Tools** link at the top of the Server Manager and click the **RD Licensing Diagnoser** link to launch the Licensing Diagnoser window.







STEP 39: Upon successful configuration and licensing of Remote Desktop Services you will see a healthy RD Licensing Diagnoser status with green check mark, as pictured below.

Eile Action View Help		
o∰ RD Licensing Diagnoser: PSRV1	RD Licensing Diagnoser (PSRV12RDS)	Actions
		RD Licensing Diagnoser: PSRV1
	RD Licensing Diagnoser provides information to help identify possible licensing problems for the Remote Desktop Session Host server.	Connect to Remote Desktop Sessio
		View
	On the product of the view way and represent the network provide provide the sector.	G Refresh
	Remote Desktop Session Host Server Configuration Details	🔢 Help
	PSRV12RDS	
	Number of licenses available for clients: 50 Remote Desktop Session Host server version: Windows Server 2012 R2	
	Active Descop Jesson nois server version, Minore Server 2012 hz	
	Licensing mode: Per User	=
	RD Licensing Diagnoser Information - 0 warning(s)	
	Server Problem	
	RD Licensing Diagnoser did not identify any problems to report.	
	Problem Suggested Resolution	
	<u>^</u>	
	v	
	Remote Desktop Services License Server Information	
<	The Remote Desktop Session Host server is configured with the following License Servers. To view details about a specific license server, click the name of the license server.	v
~	1	1

STEP 40: The final step will be to test the Remote Desktop connection. Execute **mstsc.exe** from the **Run** command or launch from the Start Screen to open the Remote Desktop Connection client application.







STEP 41: Enter the Fully Qualified Domain Name of the Remote Desktop Server that you are going to connect to. Click the **Connect** button to launch the Windows Security window.

😼 Remote Desktop Connection 💻 🗆 🗙
Remote Desktop Connection
Computer: PSRV12RDS.AutomaTech.local Viser name: None specified You will be asked for credentials when you connect.
Show Options Connect Help

STEP 42: Enter the credentials for the Proficy User that was created in the earlier steps at the Active Directory Domain Server level and click **OK** to connect.

	Windows Security	x
These credent	credentials ials will be used to connect to utomaTech.local.	
Р	AutomaTech\Administrator	
P	AutomaTech\Proficy	
	Domain: AutomaTech	
	Connect a smart card	
🗌 Reme	ember my credentials	
	OK Cancel	





STEP 43: You will now see the Remote Desktop Session created for the Proficy Domain User, as pictured below. You now have successfully followed the steps required to setup and connect to a Windows 2012 R2 Server using Active Directory and Remote Desktop Services!

This PC	Host Name: IP Address: User Name:	P\$RV12RD8 192.168.168.27 Proficy	
		Windows Server 2012 R2	
-			• 🗄 🕼




3. Installing, Configuring, and Activating GE Advantage Licensing on a Local License Server for use with GE Proficy SCADA Thin Clients

Now that the Domain Controller Server and Remote Desktop Server have been successfully configured, you are ready to begin installing GE Software and Licensing. You will start by installing the necessary Proficy Licensing components on the Servers. The Domain Controller Server will act as the Proficy License Server and the Remote Desktop Server will act as the License Client where the applications will run. The License Client will periodically verify active licenses with the License Server, as depicted below.



To download the latest Proficy Licensing Software and for detailed instructions on installing and activating Proficy Licensing software please visit the GE Customer Center: <u>https://ge-ip.force.com/communities</u> or the GE Support Site: <u>http://support.ge-ip.com/licensing</u>. This app note follows the Online Activation procedures for when an Internet connection is available on the network. For Offline Activation procedures please refer to the Proficy Licensing software documentation.





Nost Name:
P\$RV12DC

IP Address:
Administrator

Administrator
Windows Server 2012 R2
Image: Image:

STEP 1: Login to your Domain Controller Server computer as the Domain Administrator.

STEP 2: Run the Proficy Licensing Installation application, select the Install License Server option.







STEP 3: After a few moments you will be notified that the Installation has completed, click the **Finish** button to complete the Proficy License Server installation.



STEP 4: Launch the Windows Services and observe that the Proficy License Server service Status is listed as Running.

		Services				x
File Action View	Help					
	à 🗟 🛛 🖬 🕨 🔲 II 🕩					
Services (Local)	Services (Local)	N. A				
	Proficy License Server	Name	Description	Status	Startup Type	Log ^
		Reformance Counter DLL	Enables rem		Manual	Loc
	Stop the service Restart the service	Reformance Logs & Alerts	Performanc		Manual	Loc
	Restart the service	Riug and Play	Enables a c	Running	Manual	Loc
		Rortable Device Enumerator	-		Manual (Trig	Loc
	Description:	Server Power	Manages p	Running	Automatic	Loc
	Manages pools of licenses for devices.	Second Spooler	This service	Running	Automatic	Loc
		Printer Extensions and Notif	This service		Manual	Loc
		Reports and Soluti	This service		Manual	Loc
		🙀 Proficy License Server	Manages p	Running	Automatic	Loc
		🧠 Remote Access Auto Conne	Creates a co		Manual	Loc
		🔍 Remote Access Connection	Manages di		Manual	Loc
		🧠 Remote Desktop Configurat	Remote Des	Running	Manual	Loc ≡
		🤹 Remote Desktop Services	Allows user	Running	Manual	Net
		🔍 Remote Desktop Services U	Allows the r	Running	Manual	Loc
		Remote Procedure Call (RPC)	The RPCSS	Running	Automatic	Net
		🧠 Remote Procedure Call (RP	In Windows		Manual	Net
		🌼 Remote Registry	Enables rem		Automatic (T	Loc
		Resultant Set of Policy Provi	Provides a n		Manual	Loc
		Routing and Remote Access	Offers routi		Disabled	Loc
		RPC Endpoint Mapper	Resolves RP	Running	Automatic	Net
		Secondary Logon	Enables star		Manual	Loc 🗸
		<	111			>
	Extended Standard					
	· · · · · ·					





 Windows Server 2012 R2

 Image: The server server

STEP 5: Login to your Remote Desktop Server computer as the Domain Administrator.

STEP 6: Run the Proficy Licensing Installation application, select the Install License Client option.







STEP 7: Click through the prompts, accept the License Agreement, and click **Install** to install the Proficy Common Licensing application.

Proficy Common Licensing - InstallShield Wizard
Ready to Install the Program The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back Install Cancel

STEP 8: Click Finish to complete the Proficy Common Licensing installation.







STEP 9: On the Start Screen, you will notice two new applications have been installed in the Proficy Common folder. Click the **License Server Configuration** icon.

	Apps by na	ame	×				_		م
				VMwa				Windo	ws System
	ODBC Data Sources (64-bit)	Ð	Task Scheduler	0	start VM Statistics Logging	-	Sound Recorder	6	Administrative 1
8	Performance Monitor		Windows Firewall with Advanced	P	VMware vSphere Client		Steps Recorder		Command Pron
M	RD Licensing Diagnoser NEW		Windows Memory Diagnostic	Windo	ows Accessories		Windows Media Player	1	Control Panel
2.	Remote Desktop Licensing NEW	2	Windows PowerShell (x86)		Calculator	*	Windows Server Backup		Default Program
8	Resource Monitor		Windows PowerShell ISE	20	Character Map	A	WordPad		File Explorer
	Security Configuration Wizard		Windows PowerShell ISE (x86)		Math Input Panel		ws Ease of Access	?	Help and Suppo
2	Server Manager	Profic	y Common		Notepad	2	Magnifier	1	Run
O _o	Services	3	License Documentation	ø	Paint	-	Narrator	1	Task Manager
	System Configuration	8	License Manager NEW	-	Remote Desktop Connection	9	On-Screen Keyboard	43	This PC
9	System Information		License Server Configuration NEW	Se	Snipping Tool			2	Windows Power
	•								

STEP 10: You will be notified that a Server Comm Failure occurred because the application is trying to communicate with a License Server running on the local machine, which does not exist. Click **OK** to accept the message and launch the Edit Server Connection Settings screen.







STEP 11: Update the settings to point to the Server Name or IP Address of the Domain Controller Server. Click the Verify Connection button to test the connection and click Save to accept the changes.



STEP 12: Click the **< MANAGE** link in the upper left corner to view the License Server Manager Overview screen. Take notice of the status bar at the top of the window. You are now connecting through the network to remotely access the License Server service running on the Domain Controller Server computer.







STEP 13: Click the **Add Licenses to Server** button in the Manage Licenses section. The Add Licenses to Server window will appear, take notice this system is Internet connected and will allow us to perform Online Activations.

₿.	Proficy License Server Configuration Tool	
License Server IP Address: 192.168.168.26 Lice	cense Server Port: 3333 License Server Name: Local_Server License Server ID: 000C29A9F3F1 Server Status: Connected 🤅) HELP
Add Licenses to	o Server	
Follow the steps to add A	ctivation Codes to the License Server	
Current Connection Status	Enter the Activation Codes for your products. Activation Codes can be found in the confirmation email that you received with your order. Image: Code and Code after each code entry. Image: Code after each code entry. Codes to Activate	
	When all codes have been entered, press Next	
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STEP 14: Type in or paste in your activation codes and quantities then click the **Add Code** button. You will see a summary of codes listed that will be used for activation.

₹.	Proficy License Server Configuration Tool	D X
License Server IP Address: 192.168.168.26 Lice	cense Server Port: 3333 License Server Name: Local_Server License Server ID: 000C29A9F3F1 Server Status: Connected	(?) HELP
	Activation Codes to the License Server	
Current Connection Status	Enter the Activation Codes for your products. Activation Codes can be found in the confirmation email that you received with your order. Image: Imag	
© 2015 GE Intelligent Platforms, Inc. All Rights Re	When all codes have been entered, press Next NEXT Reserved. Version	: 14.8.419.0





STEP 15: Click **Next** to complete the activation, when successful you will be notified on the screen when each part of the activation process has completed.

R	👼 Proficy License Server Configuration Tool						
License Server IP Address: 192.168.168.26 Lice	ense Server Port: 3333 License Server Name: Local_Server License	Server ID: 000C29A9F3F1 Server Status: Connected ⑦ HELP					
Add Licenses to	Server						
Follow the steps to add A	ctivation Codes to the License Server						
Current Connection Status	Sending License Request to the Local Server						
	Sending Activation Codes to Intranet Server	Done					
	Assembling License Request from Intranet Server	Done					
INTERNET	Sending License Request to Internet Server	Done					
	Retrieving License Response from Internet Server	Done					
You	Sending License Response to Intranet Server	Done					
	Intranet Server licenses have been modified.	View Licenses					
INTRANET CONNECTED	BACK TO A						
© 2015 GE Intelligent Platforms, Inc. All Rights R	leserved.	Version: 14.8.419.0					

STEP 16: Click **View Licenses** to view the newly installed licenses on the Local License Server. You will notice each license status is shown as Available, they are now ready to be assigned to the License Client. This application note demonstrates activation of Terminal Services Client licenses for both iFIX and CIMPLICITY.

₩.	Proficy License Server Configuration Tool				_ 🗆 X
License Server IP Address: 192.168.168.2	26 License Server Port: 3333 License Server Name: Local_Server License Server ID: 0000	C29A9F	3F1 Serve	er Status: Connected	I 🕜 HELP
< MANAGE					
Q View Server	Licenses				
Server License List			🕞 F	REFRESH DATA 🔘	SAVE LIST TO FILE
Product Name	Description	Total	Available	Activation Code	Details
Proficy iClient English	iClient v5.8 Thin-Terminal Services Development English 10 Client Demo License	1	1		Show
Proficy HMI/SCADA - CIMPLICITY English	Cimplicity v9.0 Viewer Development/Runtime Standard Viewer English 10 Terminal Services D	1	1		Show
	No. 4. Descend		_		
© 2015 GE Intelligent Platforms, Inc. All F	lights Reserved.			Ve	rsion: 14.8.419.0





	Apps by na	ame							م
				VMwa				Windo	ws System
	ODBC Data Sources (64-bit)	Ð	Task Scheduler	0	start VM Statistics Logging	*	Sound Recorder	6	Administrative
8	Performance Monitor		Windows Firewall with Advanced	Ð	VMware vSphere Client		Steps Recorder		Command Pror
-	RD Licensing Diagnoser NEW		Windows Memory Diagnostic	Winde	ows Accessories		Windows Media Player		Control Panel
2,	Remote Desktop Licensing NEW		Windows PowerShell (x86)		Calculator	*	Windows Server Backup		Default Program
8	Resource Monitor		Windows PowerShell ISE	ap.	Character Map	<u>a</u>	WordPad		File Explorer
1	Security Configuration Wizard		Windows PowerShell ISE (x86)		Math Input Panel	Windo	ws Ease of Access	?	Help and Supp
4	Server Manager	Profig	y Common		Notepad	2	Magnifier		Run
O,	Services	3	License Documentation	Ø	Paint	-	Narrator	1	Task Manager
	System Configuration	(A)	License Manager NEW	-	Remote Desktop Connection	9	On-Screen Keyboard	4	This PC
S	System Information		License Server Configuration	Se al la	Snipping Tool			2	Windows Powe
	•								
4	-74								> =

STEP 17: Return to the Start Screen, click the **License Manager** icon.

STEP 18: When running in a Virtual Machine you will be notified that you will need to change your settings to use a Local License Server. Click **OK** to accept the notification and click **Continue** to acknowledge the licensing messages.







STEP 19: You will be directed to the Change Settings window, by default the Licensing software wants to use the GEIP License Server on the Internet.

License Source: No License Proficy Computer ID: Lice	ense Type: No License Creation Date: No Licens	se 🛛 📔 save 🚆 print 🕐 🗕 🕽
< WELCOME		
😻 Change Settings		
Change Computer Settings		
Device Name: PSRV12RDS		CONNECTION STATUS
Device Location (optional): MachineName		VERIFY CONNECTION
This Device Alias will be: MachineName/PSRV12RDS	5 0	ONLINE
Choose a License Activation Source:		
\odot Use GEIP License Server on the Internet	If Using an Intranet Ser	ver.
Use the GEIP License Server on the internet (Online).	License Server URL: (5
 Use an intranet license server on the local net 	r on rumber.	
Use a license server on the local intranet (Online). This is inside a virtual machine and are not using a hardware key	y. If Using Files:	
 Do not use a license server 	Use this location for file	es:
This machine is not connected to a license server (Offline	e). Must use a file.	
		REVERT SAVE
© 2015 GE Intelligent Platforms, Inc. All Rights Reserved.		Version: 14.8.419.0

STEP 20: Select the option to Use an intranet license server on the local network, set the License Server URL to include the IP Address of your License Server (the Domain Controller Server computer). Click the Verify Connection to test the connection and click the Save button to complete the configuration, as pictured below.

License Source: No License Proficy Computer ID: License Type: No License	Creation Date: No License	SAVE	🔄 print 🕜 🗕 🗙
K WELCOME			
😻 Change Settings			
Change Computer Settings			
Device Name: PSRV12RDS			
Device Location (optional): MachineName		VERIFY CONNECTION	
This Device Alias will be: MachineName/PSRV12RDS ()		Connection Test Sucessful	ONLINE
Choose a License Activation Source:			
 Use GEIP License Server on the Internet 	If Using an Intranet Serve	er:	
Use the GEIP License Server on the internet (Online).	License Server URL: ()	http://192.168.168.26	
 Use an intranet license server on the local network 	Port Number:	3333	
Use a license server on the local intranet (Online). This is required if you are inside a virtual machine and are not using a hardware key.	If Using Files:		
O Do not use a license server	Use this location for files:		
This machine is not connected to a license server (Offline). Must use a file.			
		REVERT	SAVE
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STEP 21: Click the < WELCOME link in the upper left corner to view the Proficy License Manager Overview screen.

License Source: No License Proficy Computer ID:	License Type: No License Creation Date: No License	💾 SAVE 🚔 PRINT 🕐 — 🗙
i Welcome to Proficy	License Manager	
What would you like to do?		
View Licenses	Manage Licenses	Change Settings
See the current licensed products and options available on this computer.	Activate or Deactivate product licenses for this computer or a hardware key plugged in to this computer. Manage Licenses for another computer or device.	Change License Manager settings.
VIEW LICENSES	MANAGE LICENSES	CHANGE SETTINGS
© 2015 GE Intelligent Platforms, Inc. All Rights Reserved.		Version: 14.8.419.0

STEP 22: Click the Manage Licenses button to open the Manage Licenses screen.







STEP 23: Click the Activate button to open the Activate a License screen.

License Source: No License Proficy Computer	ID: 271JMTZ2000Z License Type: No Licen	ISE Creation Date: No License	💾 SAVE 🚔 PRINT 🕐 — 🗙
Star Activate a Lice	nse		
Follow the steps to activa		BRequired Steps Extra Offline Steps	Your Licensed Products There is no license information available.
C Server and Arids	Enter Activation Codes You will need the confirmation email for GE Intelligent Platforms to continue. Rease click the button below to enter activation code for the product that will be installed on this machine. If you would like to activate licenses on a hardware key, please ensure that it is attached to this machine. If program and plug in the hardware key. Restart the Proficy License Manager. ENTER ACTIVATIONS		No Licensed Products
			View Licenses
© 2015 GE Intelligent Platforms, Inc. All Rights R	leserved.		Version: 14.8.419.0

STEP 24: Click the **Enter Activations** button and you will be prompted with the Select Products to Activate window which provides a summary of the licenses installed on your Local License Server. Check the boxes to select both Product Names. Click **OK** to accept the selections.

SEL	ECT PRODUCTS TO ACTIVATE				x
4	Available Licenses				🛞 REFRESH DATA
	Product Name	Description		Activation Code	
\checkmark	Proficy iClient English	iClient v5.8 Thin-Terminal Services Develop	ment English 10 Client Demo Li		
\checkmark	Proficy HMI/SCADA - CIMPLICITY English	Cimplicity v9.0 Viewer Development/Runtime	e Standard Viewer English 10 T		
		ОК	CANCEL		





STEP 25: Click the **Activate** button on the Enter Activation Codes window, you will be prompted that the licenses were successfully added, click **OK**. Notice the licenses are now listed in the Your Licensed Products section.







STEP 26: Click the **< WELCOME** link in the upper left corner to return to the Proficy License Manager Overview screen and click the **View Licenses** button to open the View Licenses screen, as pictured below. You will notice that licenses have successfully been added for both 10 iFIX Terminal Services connection and 10 Cimplicity Terminal Services connections, successfully completing the Proficy Licensing process!

ise Source: SW License Proficy Computer ID: 2	71JMTZ2000Z License Type: Leased Creation Dat	e: 01 Jul 2015	-	SAVE 🚆 PRINT 🕜 🗕
View Licenses		CSN/Customer Info License Number:	AutomaTech Inc. 271JMTZ2000Z	Lease Expiration: 24 Jul 2015 License Version: 3
Your Licensed Products	License Information			🕞 REFRESH DATA
SHOW ALL PRODUCTS	iFIX	iClient v5.8 T License	hin-Terminal Services Dev	elopment English 10 Client Demo
CIMPLICITY	License Expiration		No Expiration	
iFIX	Licensed Version		5.8	
1	Number of Terminal Server Connections		12	
	Number of Unit Blocks		Unlimited	
	Number of Process Database Blocks		Unlimited	
	Number of Drivers Allowed		0	
	Number of OPC Connections		10	
	Number of Web Server Connections		0	
	Product Options			
	Networking		Enabled	
	Classic Historian - Historical Trend Reporting		Enabled	
	ODBC Access to the Process Database		Enabled	
	Recipes		Enabled	
	Fault Tolerant Computer Support		Enabled	
	Windows Security Synchronizer		Enabled	
	FIX Graphics		Enabled	
	OPC Connections		Enabled	
	SQL Database Blocks		Enabled	
	Workspace (GUI)		Enabled	
	Terminal Server		Enabled	
				•

View Licenses		CSN/Customer Info License Number:	AutomaTech Inc. 271JMTZ2000Z	Lease Expiration: 24 Jul 2015 License Version: 3
Your Licensed Products	License Information			S REFRESH DAT
SHOW ALL PRODUCTS	CIMPLICITY	Cimplicity v9. Terminal Sen	0 Viewer Development/Ru vices Demo License	ntime Standard Viewer English 10
CIMPLICITY	License Expiration		No Expiration	
iFIX	Number of Licensed Points		Unlimited	
	Number of CNC Connections		0	
	Number of System Sentry Nodes		0	
	Number of WebView Connections		1	
	Number of Terminal Server Connections		10	
	Number of ThinView Connections		0	
	Number of GlobalView Connections		0	
	Number of Marquee Devices		0	
	Licensed Version		9.0	
	System Type			
	Development Viewer		Enabled	
	Product Options			
	OPC Server		Enabled	
	Stratus Computer		Enabled	
	Terminal Services		Enabled	





4. Overview of Installing and Configuring GE Proficy HMI/SCADA iFIX for use in a Remote Desktop Services Environment

This section provides a very high level overview of the steps for deploying Proficy HMI/SCADA iFIX in a Remote Desktop Services (formerly Terminal Services) Environment. For additional considerations, detailed configurations, compatibility requirements, and best practices when working with Terminal Services please refer to the iFIX Electronic Books included with the product or available on the GE Support Site: http://support.ge-ip.com

STEP 1: Insert or connect the Proficy HMI/SCADA iFIX 5.8 media to the Remote Desktop Server computer. Click the **Install iFIX 5.8** option on the splash screen and follow the prompts to complete the installation. NOTE: iFIX 5.8 as released only supports Windows Server 2012, iFIX 5.8 SP1 is required for Windows Server 2012 R2 support. A reboot will be required after completing the iFIX 5.8 installation.







STEP 2: After rebooting, install iFIX 5.8 SP1 and the latest SIMs. Follow the prompts to complete the installation and you will be prompted again to restart the computer.

Proficy HMI/SCADA iFIX SIM - InstallShield Wizard					
	Welcome to the InstallShield Wizard for Proficy HMI/SCADA IFIX SIM The InstallShield® Wizard will install Proficy HMI/SCADA iFIX SIM on your computer. To continue, click Next.				
< <u>B</u> ack Next> Cancel					

STEP 3: After rebooting you will need to build the necessary number of SCUs for your deployment based on requirements for Users, Roles, Projects, Security, etc. in your system architecture. For this example, two simple SCUs have been created, one for the iFIX Service account (RDSBOOT) and another for the Client access (RDSCLNT). Two project folders have been created with the appropriate iFIX files for RDSBOOT and RDSCLNT, as pictured below.

🎍 l ⊋ 🖺 = l	Projects	;		_ □	x
File Home Share	View				~ ?
⋲ 💿 🔻 🕆 📕 🕨 Th	is PC → Local Disk (C:) → Projects	Ý	🖒 Search Project	5	Q
🔆 Favorites	Name	Date modified	Туре	Size	
Desktop	🐌 RDSBOOT	7/2/2015 4:11 PM	File folder		,
🗼 Downloads	🐌 RDSCLNT	7/2/2015 4:10 PM	File folder		
🔛 Recent places					
🌉 This PC					
🙀 Network					
T					
2 items					:==





STEP 4: Open the RDSBOOT.SCU and edit the Local Startup properties. **Assign a Node Name** to identify the local session for the Remote Desktop Services Server (like RDSSRV) and **link the RDSBOOT.SCU Configuration File** for the Service account, as pictured below. Check the boxes for **Continue running after Logoff** and **Start iFIX at system boot** to ensure that iFIX runs as a Service and starts automatically without user interaction.

	SCU - RDSBOOT	– – X
File Configure Help		
	Configuration File for Node FIX	
	Local Startup Definition ? × Local Node Name: RDSSRV	
	Start FIX at system boot	





STEP 5: Open the RDSCLNT.SCU and confirm that Workspace.exe is listed in the Task Configuration to ensure that iFIX Workspace starts when clients connect to the Remote Desktop Server.

1 <u>11</u>	SCU - RDSCLNT	– – X						
File Configu	ure Help							
	Configuration File for Node RDSBOOT							
7.9.9.1	Task Configuration	? ×						
	Filename: C:\PROGRAM FILES (X86)\PROFICY\PF	Start Up Mode						
	Command Line:	Normal Background						
	Configured Tasks:							
	C:\PROGRAM FILES (X86)\PROFICY\PROFICY IFIX\WORKSP							
		Change						
		↓						
		Delete						
	OK Cancel Help							

STEP 6: Reboot the server, with the updated configuration iFIX will start automatically at system boot. Open the Windows Services to confirm that iFIX is running, as pictured below.

		Services				x	
File Action View	/ Help						
🚴 Services (Local)	Services (Local)	-					
	Proficy HMI/SCADA iFIX server	Name	Description	Status	Startup Type	1	
	, , ,	Reformance Counter DLL Host	Enables rem		Manual		
	Stop the service	Performance Logs & Alerts	Performanc		Manual	1	
	Restart the service	🔍 Plug and Play	Enables a c	Running	Manual	1	
		Portable Device Enumerator Se	Enforces gr	Running	Manual (Trig	1	
	Description:	🔍 Power	Manages p	Running	Automatic	1	
	Manages Proficy HMI/SCADA iFIX	🔍 Print Spooler	This service	Running	Automatic	1	
	services	Printer Extensions and Notificat	This service		Manual	1	
		🌼 Problem Reports and Solutions	This service		Manual	1	
		🔍 Proficy HMI/SCADA iFIX server	Manages Pr	Running	Automatic		
		🛸 Proficy iFIX Background Sched	Processes iF		Manual	٦	
		🌼 Proficy iFIX OPC Alarms and Ev	Provides ala		Manual	1	
		🌼 Proficy iFIX OPC Data Access S	Provides da		Manual	1	
		🌼 Proficy Licensing	Manages Li	Running	Automatic	1	
		鵒 Remote Access Auto Connecti	Creates a co		Manual	1	
		🌼 Remote Access Connection Ma	Manages di		Manual	1	
		鵒 Remote Desktop Configuration	Remote Des	Running	Manual	- į	
		鵒 Remote Desktop Connection B	Enables a us	Running	Automatic	- į	
		鵒 Remote Desktop Licensing	Provides re	Running	Automatic	- į	
		🌼 Remote Desktop Management	Manageme		Automatic (D	1	
		🌼 Remote Desktop Services	Allows user	Running	Manual	1	
		🌼 Remote Desktop Services User	Allows the r	Running	Manual	ţ	
		<	L			>	
	Extended Standard					-	





STEP 7: On the Start Screen, browse to the Proficy HMI SCADA – FIX 5.8 folder and click on the **Startup Profile Manager** icon.

			م
		VMware	
My-T-Soft Logon Utilities NEW	Electronic Books	start VM Statistics Logging	Sound Record
My-T-Soft Setup NEW	IFIX 5.8 NEW	VMware vSphere Client	🔢 Steps Recorde
My-T-Soft Welcome NEW	iFIX WorkSpace NEW	Windows Accessories	🚺 Windows Med
		Calculator	😻 Windows Serv
License Documentation	OPC Help	Character Map	WordPad
License Manager	OPC PowerTool NEW	Math Input Panel	Windows Ease of Aco
License Server Configuration	OPC Release Notes	Notepad	Magnifier
Proficy HMI SCADA - iFIX 5.8	SM2 Driver Manual	刻 Paint	Narrator
Backup & Restore Wizard NEW	Startup Profile Manager NEW	Remote Desktop Connection	On-Screen Key
Data Server Installer NEW	System Configuration NEW	Snipping Tool	
	Image: Second	Image: My-T-Soft Logon Utilities NEW Image: Electronic Books Image: My-T-Soft Setup NEW Image: Electronic Books Image: My-T-Soft Setup NEW Image: Electronic Books Image: My-T-Soft Welcome NEW Image: Electronic Books Image: Common Image: Electronic Books Image: License Documentation Image: OPC Help Image: License Server Configuration Image: OPC Release Notes Image: License Server Configuration Image: Marce Netw Image: License Server Configuration Image: Server Configuration Image: License Server Configuration Image: Server Configuration Image: License Server Configuration Image: S	Image: Sector

STEP 8: Notice by default, the Startup Profile manager is blank, you will have the ability to link iFIX Project Files and SCUs like the ones created in the earlier steps. The Startup Profiles allow you to associate Windows Users with a specific iFIX Project Configuration. For complete details on working with the Startup Profile Manager and iFIX Projects please refer to the iFIX Electronic Books.

暍		Startup Profile Manager		_ 🗆 X
File Settings Help				
iFIX Startup Profiles				
Windows User 🔺	iFIX Nodename	SCU File	SCU Det ^	Add
				<u> </u>
				Edit
			=	
				Remove
				Help
<			×	
	m			
Default SCU:	<none></none>			Close





STEP 9: In this application note, we configure a very simple iFIX Terminal Services setup using the Startup Profile Manager. We will configure a default SCU for the iFIX Service and another SCU for the Proficy User that was created in the earlier steps. Click the Settings option in the Menu Bar and select Default Startup Profile to open the Default Startup Profile options window. In the Default Service SCU section, specify a Service NodeName and Service SCU File, as pictured below. Click OK to accept the changes.

Default Startup Profile
Default Client SCU
The Default SCU, if enabled, will determine the iFIX Startup configuration for Windows users who are not configured within the Startup Profile Manager application. The default iFIX Nodename will be the Windows username, truncated to 8 characters.
Enable Default SCU
Default SCU File:
SCU File Description:
Default iFIX Startup Options
The following iFIX Startup Option settings will be applied to all Windows users who start iFIX but are not configured within the Startup Profile Manager application.
✓ Allow User to Run Sample System
✓ Allow User to Modify Nodename and SCU
Default Service SCU
The Default Service SCU, if enabled, will determine the iFIX Startup configuration for services running on this machine. The default iFIX Nodename will be the service name truncated to 8 characters.
☑ Default Service Startup Parameter
Service NodeName: RDSB00T
Service SCU File: C:\Projects\RDSB00T\LOCAL\RDSB00T.SCU
SCU File Description: Configuration File for Node RDSBOOT
OK Cancel Help





STEP 10: You will now link a profile to the Proficy User. Click the Add button to launch the Add Startup Profile window. You will notice you can browse the local computer or the Domain accounts by clicking the List Domain Members button. Browse the Domain and select the Proficy User that was created earlier. Browse to the RDSCLNT.SCU file that to link these two together, as pictured below. You can edit the other settings if necessary based on the user, click OK to accept the changes and add the profile.

Add Startup Profile						
	maTech 🗸	List Domain Members				
Select a <u>W</u> indows user from the list, or enter user name manually: Administrator Guest krbtgt LocalAdmin Proficy						
Windows <u>U</u> ser:	Proficy					
iFIX <u>N</u> odename:	Proficy					
SCU <u>F</u> ile:	C:\Projects\RDSCLNT\L	OCAL\RDSCLNT.SCU				
SCU Description:	Configuration File for Nod	le RDSBOOT				
iFIX Startup Options ☑ Allow user to run <u>S</u> ample System ☑ Allow User to <u>M</u> odify Nodename and SCU						
Add Profile	<u>O</u> K <u>C</u>	2ancel <u>H</u> elp				





STEP 11: You can add the necessary number of profiles to the Startup Profiles list to fit your system architecture. **Save** the changes in the Startup Profile Manager and click **Close.**

唱		Startup Profile Manager		– 🗆 X
File Settings Help				
iFIX Startup Profiles				
Windows User 🔺	iFIX Nodename	SCU File	SCU Des A	Add
Proficy	PROFICY	C:\Projects\RDSCLNT\LOCAL\RDSCL	N [®] Configuration File	Auu
				Edit
			=	
		-		
			——————————————————————————————————————	Remove
				in the second
				Help
<	Ш		>	
Default SCU:	<none></none>			Close





STEP 12: Launch a Remote Desktop client session and login to the Remote Desktop Server as the Proficy User
Based on the permissions, you will be brought to the Desktop.

i inis PC		Host Name: IP Address: User Name:	PSRV12RDS 192.168.168.27 Proficy	
ifix 5.8				
			Windows Server 2012 N2	
	2 👸		- Ia	9 G

STEP 13: Double-click the **iFIX 5.8** icon located on the desktop to open the Proficy iFIX Startup window. Based on the configuration in the Startup Profile Manager, you will see the appropriate node name and SCU file has been linked to this user.

		Proficy iFIX Startup
Proficy iFIX	Start Proficy i <u>F</u> IX w Node Name: SCU File: Description:	ith these settings: PROFICY C:\Projects\RDSCLNT\LOCAL\RDSCLNT.SCU Configuration File for Node RDSB00T
SCU	-	onfiguration Utility configure the iFIX system.
Desktop SI	Create a desktop s	hortcut cut on your desktop using the settings listed above.
🗌 Don't si	now this dialog box a	igain; always start Proficy iFIX. Exit





STEP 14: Click the orange **Start Proficy iFIX with these settings** button to launch the iClient session for this user. You will now see the iFIX Remote Desktop session for this user, successfully completing the basics of configuring iFIX in a Remote Desktop Services environment!

S PERIS ·	Proficy iFIX WorkSpace (Run)	_ 0 ×
2	Overview.grf	×
User Na	ame: PROFICY ime: PROFICY Tag: 186.39	
For Help, press F1	Rut	
🛋 占 🖉 🚞 🔣 👪		- 🗄 🕒





5. Overview of Installing and Configuring GE Proficy HMI/SCADA CIMPLICITY for use in a Remote Desktop Services Environment

This section provides a very high level overview of the steps for deploying Proficy HMI/SCADA CIMPLICITY in a Remote Desktop Services (formerly Terminal Services) Environment. For additional considerations, detailed configurations, compatibility requirements, and best practices when working with Terminal Services please refer to the CIMPLICITY Electronic Books included with the product or available on the GE Support Site: <u>http://support.ge-ip.com</u>

STEP 1: Insert or connect the Proficy HMI/SCADA CIMPLICITY 9.0 R2 media to the Remote Desktop Server computer. Click the **Install CIMPLICITY Viewer** option on the splash screen and follow the prompts to complete the installation. NOTE: You also have the option to perform a full CIMPLICITY Server installation if you require access to the CIMPLICITY development environment like Workbench and CimEdit.







STEP 2: After completing the installation and rebooting, install the latest CIMPLICITY SIM. Follow the prompts to complete the installation process.

HMI-9	HMI-9.0.000007 - InstallShield Wizard				
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed HMI-9.0.000007. Click Finish to exit the wizard.				
	K Back Finish Cancel				

STEP 3: Now you will need setup CIMPLICITY to run as a Windows Service. Click **CIMPLICITY Options** from the Start Screen.

٨	nnc			0
A	PPS by name ∽			م
	Proficy HMI SCADA - CIMPLICITY 9.0			Windows Accessories
ogon Utilities NEW	Alarm Sound Manager NEW	Process Control NEW	ОРС Нер	Calculator
etup NEW	Alarm Viewer NEW	Show Users NEW	OPC PowerTool NEW	Character Map
Velcome NEW	CimLayout NEW	Status Log NEW	OPC Release Notes	Math Input Panel
		Proficy HMI SCADA - iFIX 5.8	SM2 Driver Manual	Notepad
nt Platforms Up NEW		Backup & Restore Wizard NEW	Startup Profile Manager	🧭 Paint
umentation	Deployment Configuration NEW	Data Server Installer NEW	System Configuration NEW	Remote Desktop Connection
lager	DGR NEW	Electronic Books	VMware	Snipping Tool
er Configuration	Integrate with Windows Fire NEW	IFIX 5.8 NEW	start VM Statistics Logging	Sound Recorder
IP Update Notification	Eogin Panel NEW		VMware vSphere Client	Steps Recorder
	Point Control Panel NEW	Eogin		0 Windows Media Player
۲				





STEP 4: Switch to the **Startup Options** tab and select the **Start as viewer** option in the System boot options section. Click **OK** to accept the changes and reboot the computer.

9	(CIMPLICITY®	Options		_ □	x
Historian Conne		WebView/Th	inView	Broad	dcast Ses	sions
Projects	Sta	irtup Options	Secu	rity	Ho	sts
Computer name: F		DS				
Accept con	nections	Allow compre	ssed conne	ctions		
Use secure	sockets	Allow uncomp	pressed con	nections		
		 Prefer compre 	essed conne	ections		
		Compression valu	Je: 6 🗘			
System boot opt	ions					
○ None		Start as viewed	er	⊖ Sta	t projects	
					\dd)elete]
	0	K Canc	el	Apply		Help

STEP 5: Return to the **CIMPLICITY Options** and confirm that VIEWER is present in the Running Projects list on the Projects tab, as pictured below.

*	C	IMPLICITY®	Options		- 🗆 X
Historian Connec	tions	WebView/Th	inView	Broa	dcast Sessions
Projects	Star	tup Options	Secu	urity	Hosts
Computer name :	PSRV12	RDS		~	Connect
- Running projects					Start Viewer
VIEWER					
					Stop
Projects					
					Add
					Start
					Delete
	0	K Cano	el	Apply	Help





STEP 6: Launch a Remote Desktop client session and login to the Remote Desktop Server as the Proficy User. Based on the permissions, you will be brought to the Desktop. A CIMPLICITY CimView shortcut was manually copied to the Desktop after installation.



STEP 7: You now can connect to CIMPLICITY projects running on the network. Click **Point Control Panel** from the Start Screen to launch a new Point Control Panel window.

Ар	OS by name ∽			م
	Proficy HMI SCADA - CIMPLICITY 9.0			Windows Accessories
ft Logon Utilities NEW	Alarm Sound Manager NEW	Process Control NEW	🔗 ОРС Неір	Calculator
t Setup NEW	Alarm Viewer NEW	Show Users NEW	OPC PowerTool NEW	Character Map
It Welcome NEW		Status Log NEW	OPC Release Notes	Math Input Panel
		Proficy HMI SCADA - iFIX 5.8	SM2 Driver Manual	Notepad
gent Platforms Up NEW		Backup & Restore Wizard NEW	Startup Profile Manager NEW	🧭 Paint
locumentation	Deployment Configuration NEW	Data Server Installer NEW	System Configuration NEW	Remote Desktop Connection
Manager NEW	DGR NEW	Electronic Books	VMware	Snipping Tool
erver Configuration NEW	Integrate with Windows Fire NEV	V 111 IFIX 5.8 NEW	start VM Statistics Logging	Sound Recorder
GEIP Update Notification	Login Panel NEW	IFIX WorkSpace NEW	VMware vSphere Client	Steps Recorder
	Point Control Panel NEW	Login NEW		0 Windows Media Player





STEP 8: Click the **Add Points** button and browse for your SCADA project and add a Point to confirm communications between the Remote Desktop Server and the SCADA Server.

	Untitled -	Point Control Panel			x
File Edit Font View Help					
□ 🛩 🖬 🕒 🕇 🗰 🖀 😭 🐦 🖉) X 🖨 2 2 1				
Point ID	Value Units	Timestamp	Description		
\\SCADA\ProficyCompany.StudentPlant.North	198.282852	7/6/15 14:58:50.635602 PM	North Site Process A Temperature		
For Help, press F1				NUM	





STEP 9: In order connect to your SCADA server you will need to properly qualify the Points with CimView. Right-click the CimView icon on the desktop open the **Properties**. Edit the Target field to include the **/project** switch and the **path of your initial Screen**, as pictured below. Click **OK** to accept the changes.

2	CimView Properties
Security	Details Previous Versions
General	Shortcut Compatibility
Cir	nView
Target type:	Application
Target location:	exe
<u>T</u> arget:	v.exe" /project SCADA C:\Screens\Overview.cim
<u>S</u> tart in:	"C:\Program Files (x86)\Proficy\Proficy CIMPLICI
Shortcut key:	None
<u>R</u> un:	Normal window 🗸
Comment:	
Open <u>F</u> ile Lo	ocation Change Icon Advanced
	OK Cancel Apply





STEP 10: Double-click the **CimView** icon on the Desktop. You will now see the CIMPLICITY Remote Desktop session for this user, successfully completing the basics of configuring CIMPLICITY in a Remote Desktop Services environment!

