

WorkstationST* Web View Instruction Guide

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Document Updates

Revision	Location	Description
D	Windows 2012R2	Added procedures to enable web services for Windows Server 2012R2
	Windows 2008R2	Added procedures to enable web services for Windows Server 2008R2
	Windows 10	Added procedures to enable web services for Windows 10
	Windows 7	Updated the Window 7 32-bit application entry in the table in step 12
	Windows XP	Deleted this section — WorkstationST no longer supports Windows XP
	Windows 2003R2	Deleted this section — WorkstationST no longer supports Windows Server 2003R2

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1 Introduction

The WorkstationST* Web function is included in the WorkstationST application to enable an On Site Monitor (OSM) to provide WorkstationST configuration and real time data as a set of Web pages. Installation of the WorkstationST application places the needed files on the computer, but does not install or configure the Web server. This document describes the one-time installation and configuration instructions needed to install the Web server which displays WorkstationST Web pages.

Note WorkstationST no longer supports Windows® 2000, Windows XP, and Windows 2003R2.

2 Enabling WorkstationST Web

Installing the WorkstationST application from the ControlST* DVD installs the WorkstationST Web files onto the computer, but it does not configure the Internet Information Service (IIS) to display the files on a Web site. This is done for the following reasons:

- The IIS Web server may not be installed. Recent Microsoft® operating systems are not including the Web server in the default installation as a security measure. Enabling it is a manual step that is slightly different for each version of the Windows® operating system, including many choices about what items of the server should and should not be enabled.
- The IIS Web server can emulate many different Web sites. There is no requirement or assumption that the WorkstationST Web pages be displayed on the default Web site.
- The configuration of the Web server to include the WorkstationST Web pages is slightly different for different operating systems and IIS versions.

As a result, certain one-time configuration steps are necessary for each operating system (OS) in addition to the ControlST DVD installation. These steps include installing the IIS Web server and configuring it to display the WorkstationST Web pages.

Note The *Remote Management* tools are not needed to use the target computer to configure itself, which is typically the case.

The IIS is installed using Control Panel and Add or remove Windows Components. Check that the local IIS management tool and the IIS server are installed. Not all operating systems automatically include these items.

3 Windows 2012R2

➤ To configure Windows 2012R2

1. From the **Start** menu, select **Control Panel**, **Administrative Tools**, and **Internet Information Service (IIS) Manager** to start Information Service Manager.
2. Click **Manage**.
3. Click **Next** through the windows until you get to Server Roles, then add the following **Roles and Features**:
 - a. Web Server (IIS) Support (add all suggested features)
 - b. Web Server
 - c. Application Development
 - d. Verify that CGI is selected (checked)
4. For **Features**, add IIS Hostable Web Core.
5. For **Roles Services**, leave default selections as follows:
 - a. Common HTTP Features:
 - i. Default Document
 - ii. Static Content
 - b. Health and Diagnostics:
 - i. HTTP Logging
 - ii. Logging Tool
 - c. Performance:
 - i. Static Content Compression
 - ii. Dynamic Content Compression
 - d. Security:
 - i. Request Filtering
 - ii. Windows Authentications
6. Click **Install**.
7. Using an administrator account, create the directory C:\inetpub\scripts.
8. From the **Start** menu, select **Control Panel**, **Administrative Tools**, and **Internet Information Service (IIS) Manager** to start Information Service Manager.
9. From the Tree View, select the second item (typically the computer name).
10. Double-click **ISAPI** and **CGI Restrictions**.
11. If any ASP.NET V4.0.30319 entries are set to *Not Allowed*, highlight the entry and select **Allow** from the Actions column.

Note If you do not see ASP.NET V4.0.30319, refer to [Appendix A .NET Framework Registration in IIS Server](#).

12. From the Actions column, select **Edit Features Settings** and click to enable **Allow Unspecified CGI Modules**.
13. Select **Application Pools**
14. From **Actions**, select **Add Application Pool** and provide the following details:
 - a. For Name, enter **WorkstationST AppPool**.

- b. Select **Framework** and **.Net CLR Version V4.0.30319**.
- c. Select **Manager pipeline mode** and **Integrated**.
- d. Select **Start application pool immediately**.
- e. Click to enable **WorkstationST Application Pool**.
- f. Click **Advanced Settings** and configure the following settings:
 - i. For Enable 32-bit Application, enter **True** (for 64-bit systems only).
 - ii. Select **Identity**, then select **ApplicationPoolIdentity**.
 - iii. Select **Load User Profile**, then select **False**.

15. From the Tree View, select **Sites**, right-click **Default Web Sites**, and select **Add Virtual Directory**.

For	Enter
Alias	Scripts
Physical Path	C:\inetpub\scripts

16. From the Tree View, select **Sites**, **Default Web Sites**, right-click **Scripts**, and select **Add Virtual Directory**.

For	Enter
Alias	Wkstn-cgi
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\CGI

17. From the Tree View, select **Sites**, **Default Web Sites**, right-click **Scripts**, and select **Add Application**.

For	Enter
Alias	Wkstn-asp
Application Pool	WorkstationST App Pool
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\ASPX

18. From the Tree View, select **Default Web Sites**, right-click **Scripts**, and select **Wkstn-cgi**. Double-click **Handler Mappings** and select **Edit Feature Permissions** from the Action column. Verify that Read, Script, and Execute are enabled.

19. From the Tree View, select **Default Web Sites**, right-click **Scripts**, and select **Wkstn-cgi**. Double-click **Authentication**, select **Windows Authentication**, and select **Enable** from the Actions column.

4 Windows 2008R2

➤ To configure Windows 2008R2

1. From the **Start** menu, select **Control Panel**, **Administrative Tools**, and **Internet Information Service (IIS) Manager** to start Information Service Manager.
2. Click **Roles**.
3. Click **Add Roles**.
4. Click **Next** through the windows until you get to Server Roles, then add the Role **Role Web Server (IIS)**.
5. For Role Service, verify that the following default services are selected (leave other defaults):
 - a. Common HTTP Features:
 - i. Default Document
 - ii. Static Content
 - b. Application Development:
 - i. ASP.NET
 - ii. CGI
 - c. Health and Diagnostics:
 - i. HTTP Logging
 - ii. Logging Tool
 - d. Security:
 - i. Request Filtering
 - ii. Windows Authentications
 - e. Performance:
 - i. Static Content Compression
 - ii. Dynamic Content Compression
 - f. Management Tools: IIS Management Scripts and Tools
 - g. IIS Hostable Web Core
6. Click **Install**.
7. Using an administrator account, create the directory C:\inetpub\scripts.
8. From the **Start** menu, select **Control Panel**, **Administrative Tools**, and **Internet Information Service (IIS) Manager** to start Information Service Manager.
9. From the Tree View, select the second item (typically the computer name).
10. Double-click **ISAPI** and **CGI Restrictions**.
11. If any ASP.NET V4.0.30319 entries are set to *Not Allowed*, highlight the entry and select **Allow** from the Actions column.

Note If you do not see ASP.NET V4.0.30319, refer to [Appendix A .NET Framework Registration in IIS Server](#).

12. From the Actions column, select **Edit Features Settings** and click to enable **Allow Unspecified CGI Modules**.
13. Select **Application Pools**.

14. From **Actions**, select **Add Application Pool** and provide the following details:

- a. For Name, enter **WorkstationST AppPool**.
- b. Select **Framework** and **.Net Framework v4.0.30319**.
- c. Select **Manager pipeline mode** and **Integrated**.
- d. Select **Start application pool immediately**.
- e. Click to enable **WorkstationST Application Pool**.
- f. Click **Advanced Settings** and configure the following settings:
 - i. For Enable 32-bit Application, enter **True** (for 64-bit systems only).
 - ii. Select **Identity**, then select **ApplicationPoolIdentity**.
 - iii. Select **Load User Profile**, then select **False**.

15. From the Tree View, select **Sites**, right-click **Default Web Sites**, and select **Add Virtual Directory**.

For	Enter
Alias	Scripts
Physical Path	C:\inetpub\scripts

16. From the Tree View, select **Sites**, **Default Web Sites**, right-click **Scripts**, and select **Add Virtual Directory**.

For	Enter
Alias	Wkstn-cgi
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\CGI

17. From the Tree View, select **Sites**, **Default Web Sites**, right-click **Scripts**, and select **Add Application**.

For	Enter
Alias	Wkstn-asp
Application Pool	WorkstationST App Pool
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\ASPX

18. From the Tree View, select **Default Web Sites**, right-click **Scripts**, and select **Wkstn-cgi**. Double-click **Handler Mappings** and select **Edit Feature Permissions** from the Action column. Verify that Read, Script, and Execute are enabled.

19. From the Tree View, select **Default Web Sites**, right-click **Scripts**, and select **Wkstn-cgi**. Double-click **Authentication**, select **Windows Authentication**, and select **Enable** from the Actions column.

5 Windows 10

➤ To configure Windows 10

1. From the **Control Panel**, select **Programs and Features**, turn Windows Features on or off, and verify that the following Components are available:
 - a. Internet Information Services
 - b. Web Management Tools:
 - i. IIS Management Console[enabled]
 - ii. World Wide Web Service
 - iii. Application Development:
 - NET Extensibility 3.5 [enabled]
 - NET Extensibility 4.7 [enabled]
 - ASP.NET 3.5[enabled]
 - ASP.NET 4.7[enabled]
 - CGI[enabled]
 - ISAPI Extensions[enabled]
 - ISAPI Filters[enabled]
 - iv. Common HTTP Features:
 - Default Document[enabled]
 - Static Content[enabled]
 - v. Health and Diagnostics:
 - HTTP Logging[enabled]
 - Logging Tools[recommended]
 - vi. Performance Features [recommended, not required]:
 - Dynamic Content Compression[recommended]
 - Static Content Compression[recommended]
 - vii. Security:
 - Request Filtering[enabled]
 - Windows Authentication[enabled]
2. Using an administrator account, create the directory C:\inetPub\scripts.
3. From the **Start** menu, select **Control Panel**, **Administrative Tools**, and **Internet Information Service (IIS) Manager** to start Information Service Manager.
4. From the Tree View, select the second item (typically the computer name).
5. Double-click **ISAPI** and **CGI Restrictions**.
6. If any ASP.NET V4.0.30319 entries are set to *Not Allowed*, highlight the entry and select **Allow** from the Actions column.

Note If you do not see ASP.NET V4.0.30319, refer to [Appendix A .NET Framework Registration in IIS Server](#).

7. From the Actions column, select **Edit Features Settings** and click to enable **Allow Unspecified CGI Modules**.
8. Select **Application Pools**.

9. From **Actions**, select **Add Application Pool** and provide the following details:
 - a. For Name, enter **WorkstationST AppPool**.
 - b. Select **Framework** and **.Net Framework v4.0.30319**.
 - c. Select **Manager pipeline mode** and **Integrated**.
 - d. Select **Start application pool immediately**.
 - e. Click to enable **WorkstationST Application Pool**.
 - f. Click **Advanced Settings** and configure the following settings:
 - i. For Enable 32-bit Application, enter **True** (for 64-bit systems only).
 - ii. Select **Identity**, then select **ApplicationPoolIdentity**.
 - iii. Select **Load User Profile**, then select **False**.

10. From the Tree View, select **Sites**, right-click **Default Web Sites**, and select **Add Virtual Directory**.

For	Enter
Alias	Scripts
Physical Path	C:\inetpub\scripts

11. From the Tree View, select **Sites**, **Default Web Sites**, right-click **Scripts**, and select **Add Virtual Directory**.

For	Enter
Alias	Wkstn-cgi
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\CGI

12. From the Tree View, select **Sites**, **Default Web Sites**, right-click **Scripts**, and select **Add Application**.

For	Enter
Alias	Wkstn-asp
Application Pool	WorkstationST App Pool
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\ASPX

13. From the Tree View, select **Default Web Sites**, right-click **Scripts**, and select **Wkstn-cgi**. Double-click **Handler Mappings** and select **Edit Feature Permissions** from the Action column. Verify that Read, Script, and Execute are enabled.
14. From the Tree View, select **Default Web Sites**, right-click **Scripts**, and select **Wkstn-cgi**. Double-click **Authentication**, select **Windows Authentication**, and select **Enable** from the Actions column.

6 Windows 7

➤ To configure Windows 7

1. From the **Control Panel**, select **Programs and Features**, **Turn Windows Features on or off**, and verify that the following **Components** are available:

Internet Information Services

- Web Management Tools
 - IIS Management Console [enabled]
- World Wide Web Service
 - Application Development
 - .NET Extensibility [enabled]
 - ASP.NET [enabled]
 - CGI [enabled]
 - ISAPI Extensions [enabled]
 - ISAPI Filters [enabled]
- Common HTTP Features
 - Default Document [enabled]
 - Static Content [enabled]
- Health and Diagnostics
 - HTTP Logging [enabled]
 - Logging Tools [recommended]
- Performance Features [recommended, not required]
 - Dynamic Content Compression [recommended]
 - Static Content Compression [recommended]
- Security
 - Request Filtering [enabled]
 - Windows Authentication [enabled]

2. Install **.NET Framework 4.0** (The installation from the ControlST DVD will do this.)

Note Refer to [Appendix A .NET Framework Registration in IIS Server](#) if the ControlST DVD was installed prior to enabling the IIS Server.

3. From an **Administrator** account, create the **C:\inetpub\scripts** directory.
4. From the **Start** menu, select **Control Panel**, **Administrative Tools**, and **Internet Information Service (IIS) Manager** to start **Information Service Manager**.
5. Select the top level item (typically the computer name).
6. Double-click **ISAPI and CGI Restrictions**.
7. If any of the **ASP.NET V4.0.30319** entries are set to **Not Allowed**, highlight the entry and from the **Actions** column, select **Allow**.

Note If you do not see ASP.NET V4.0.30319, refer to [Appendix A .NET Framework Registration in IIS Server](#).

8. From the **Actions** column, select **Edit Feature Settings** and click to enable the **Allow unspecified CGI modules**.

9. Select **Application Pools**, and under **Actions**, select **Add Application Pool**.

- For **Name**, enter **WorkstationST AppPool**.
- Select **Framework** and **.NET Framework V4.0.30319**.
- Select **Managed pipeline mode** and **Integrated**.
- Select **Start application pool immediately**.
- Click to enable **WorkstationST Application Pool** and click **Advanced Settings**.
 - For **Enable 32-bit Applications**, enter **True** (for 64-bit systems only).
 - Select **Identity** and select **ApplicationPoolIdentity**.
 - Select **Load User Profile** and select **False**.

10. From the **Tree View**, select **Sites**, right-click **Default Web Site**, and select **Add Virtual Directory**.

For	Enter
Alias	Scripts
Physical Path	C:\inetpub\scripts

11. From the **Tree View**, select **Sites**, **Default Web Site**, right-click **Scripts**, and select **Add Virtual Directory**.

For	Enter
Alias	Wkstn-cgi.
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\CGI
Windows 7 32-bit	C:\Program Files\GE Energy\WorkstationST Web\CGI

12. From the **Tree View**, select **Sites** and **Default Web Site**, right-click **Scripts**, and select **Add Application**.

For	Enter
Alias	Wkstn-asp
Application Pool	WorkstationST AppPool
Physical Path	C:\Program Files (x86)\GE Energy\WorkstationST Web\ASPX
Windows 7 32-bit	C:\Program Files\GE Energy\Workstation Web\ASPX

13. From the **Tree View**, select **Default Web Site**, **Scripts**, and **Wkstn-cgi**. Double-click **Handler Mappings** and from the **Action** column, select **Edit Feature Permissions**. Verify that **Read**, **Script**, and **Execute** are enabled.

14. From the **Tree View**, select **Default Web Site**, **Scripts**, and **Wkstn-cgi**. Double-click **Authentication**, select **Windows Authentication** and from the **Actions** column select **Enable**.

7 Appendix A .NET Framework Registration in IIS Server

The IIS server either supports returning Web pages from files (called *static content*) or starting a program and having that program generate the contents for the Web page (called *dynamic content*). If those dynamic programs depend upon the .NET framework, the .NET framework must be registered with IIS server.

If the .NET framework is installed after IIS server, it registers with IIS server as part of the installation process. In addition, whatever version of the .NET framework that was current when the operation system was created is registered.

If a new version of the .NET framework is installed before IIS server, it will not be registered. This can happen if the ControlST software suite was installed prior to installing IIS server with a newer version of .NET than was included in the base operating system. If that is the case, the newer .NET framework will not be registered in IIS. Attempts to start programs out of the *Wkstn-ASPX* directory, using .NET, will report a failure due to .NET (or ASP.NET) not being installed.

Correct the situation by using one of the following options:

Option 1 – After installing IIS, uninstall and then reinstall the .NET framework.

Option 2 – Run a utility program that registers the .NET framework in IIS.

- a. Open a **command prompt window** with administrative privileges.
- b. Set the default directory to the **.NET framework directory** that you are attempting to register. This is located on the **System Disk** in the following directories:

For 32-bit .NET: **Windows\Microsoft.NET\Framework\<version>**

For 64-bit .NET: **Windows\Microsoft.NET\Framework64\<version>**

Where <version> is the .NET version you wish to register with IIS

- c. Enter the following command: **aspnet_regiis -ir**

The WorkstationST Web programs are written as 32-bit applications using .NET v4.0.30319. If the system disk is drive C, the following sequence results:

```
C:> CD \Windows\Microsoft.NET\Framework\v4.0.30319
C:\Windows\Microsoft.NET\Framework\v4.0.30319> aspnet_regiis -ir
Finished installing ASP.NET (4.0.30319) .
C:\Windows\Microsoft.NET\Framework\v4.0.303197>
```

