E3 Installation Guide

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CHAPTER 1

Welcome to E3!

E3 is a complete system for process supervisory and control, developed for our customer's connectivity, flexibility, and reliability requirements. E3 is the result of years of Elipse's research and hard work.

Its architecture is fully focused on network operation and distributed applications, creating a true Client-Server system that offers a wide range of features allowing fast application development, high communication capability, and also ensures system expansion, which preserves user investments.

With E3, users can perform communication with hundreds of data acquisition devices, using proprietary drivers and OPC (*OLE for Process Control*). Powerful graphical user interfaces can be viewed on a single computer, on a local network, or via Internet. Other features, such as alarm acknowledgment, access to most common databases on the market, information exchange among several software programs and components, and specific report and formula modules, make E3 much more powerful and versatile than any other software program available.

We appreciate your preference for our products, and we wish you success with your new work tool!

Elipse Software Team

CHAPTER 2

Package Content

Please make sure the following items are in the Elipse E3's package:

- Software license
- Installation Guide
- Protection device (**Hardkey** type)

Contact an Elipse Software dealer if any of these items is missing.

CHAPTER 3

Installers

Since version 3.1, installer names were changed to contain information about installer's platform and language. The new format for installer names is the following:

```
nnnn-pppp-qqq.exe
```

Where *nnnn* is the product's name, *pppp* is the platform, and *qqq* is the language code, as in the examples described on the next table.

Examples of installer names

PRODUCT	PLATFORM	LANGUAGE	EXECUTABLE
E3 Full	x86 (32 bits)	Brazilian Portuguese	e3full-x86-ptb.exe
Viewer	x86 (32 bits)	English	e3viewer-x86-enu.exe
WebViewer	x86 (32 bits)	Spanish	e3webviewer-x86-esn.exe

The available languages for our products are described on the next table.

Available languages for installers

LANGUAGE	CODE
Brazilian Portuguese	ptb
English	enu
Spanish	esn
Chinese Simplified	chs
Chinese Traditional	cht

3.1 E3 Server and E3 Studio

To execute E3 Server or E3's programming environment, users must have a computer with the following configuration:

- A 2 GHz or faster processor
- 4 GB of RAM
- Video adapter and monitor with 1024x768 resolution
- 1 GB of hard disk free space (does not include space for data files)
- Windows XP SP3, Windows XP x64 SP2, Windows Vista SP2, Windows 7 SP1, Windows 8, Windows 8.1, Windows 10, Windows Server 2003 SP2, Windows

Server 2008 SP2, Windows Server 2008 R2 SP1, Windows Server 2012, or Windows Server 2012 R2

- USB port
- Network interface (for server or distributed applications)

3.2 Viewer

To execute Viewer (client), users must have a computer and the following configuration:

- A 2 GHz or faster processor
- 2 GB of RAM
- Video adapter and monitor with 800x600 resolution
- 512 MB of hard disk free space
- Windows XP SP3, Windows XP x64 SP2, Windows Vista SP2, Windows 7 SP1, Windows 8, Windows 8.1, Windows 10, Windows Server 2003 SP2, Windows Server 2008 SP2, Windows Server 2008 R2 SP1, Windows Server 2012, or Windows Server 2012 R2
- Network interface (for E3 Server connection)

CHAPTER 4

Installation

E3 allows two types of installation: **Full Install** or **Viewer Install** (for client stations). For more information about limitations of the **Demo** mode, please check the topic **Limitations of Demonstration Mode** on **E3 User's Manual**.

4.1 Full Install

1. Plug the protection device (**Hardkey**-type) in the computer's USB port. E3 validates licenses based on this device.
2. Open the file e3full-x86-enu.exe and follow the on-screen instructions.
3. An **Installation Complete** message appears when installation is finished. A program group named **Elipse E3** is then created on Windows **Start** menu.

NOTES:

- For a time-limited protection device installation, E3 Server shows, on Windows Notification Area, messages warning how much time remains (in days, hours, and finally minutes) until program license expires
- To install E3 using a **Softkey**-type protection device, please contact *Elipse Software*

4.2 Viewer Install

1. Execute the installation file e3viewer-x86-enu.exe.
2. Follow the on-screen instructions, and wait for the end of the installation.
3. An **Installation Complete** message appears when installation is successful. A program group named **Elipse E3** is then created on Windows **Start** menu.

A protection device is not needed for Viewer installation.

4.3 WebViewer

WebViewer is a web client that allows viewing and controlling E3 applications on Internet Explorer, which supports the ActiveX technology. Thus, users can view and interact with a factory floor process using a web browser.

After installed, a WebViewer works exactly as a Viewer, performing a download of the application.

To use a WebViewer, users must specify Server configurations, according to the procedures explained on the next topics.

NOTE:

- The minimum version of Internet Explorer for use with WebViewer is 6.0, which is available on **Windows XP SP3** or later.
- Default browser on **Windows 10** is **Microsoft Edge**, which **DOES NOT** support the ActiveX technology.

4.4 Server Configuration

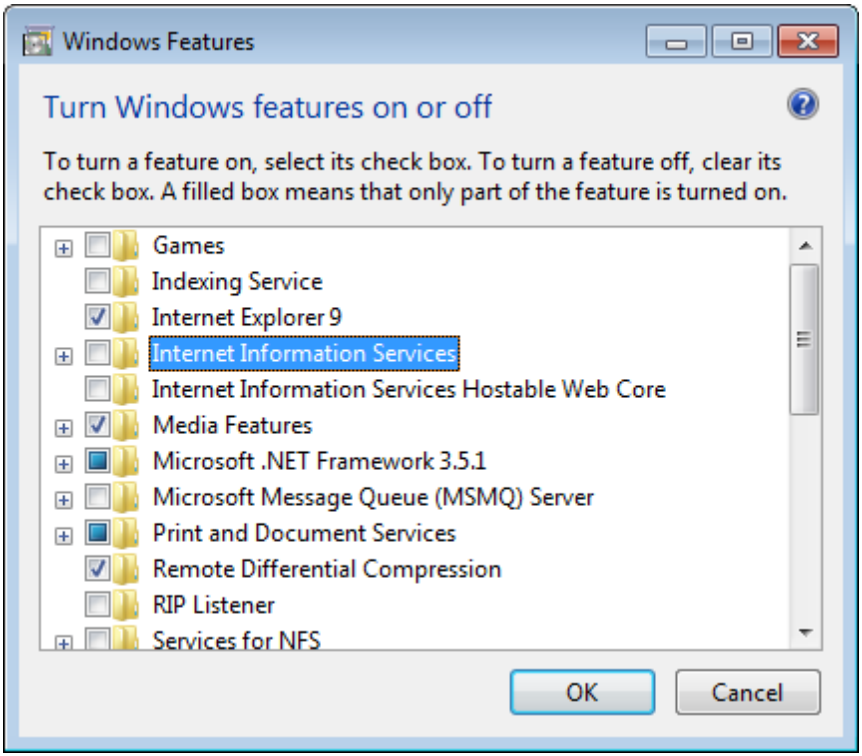
On server's computer, users must install a web server to correctly execute WebViewer's control page scripts. Any web server can be used, as long as it executes ASP (*Active Server Pages*) pages. The following procedures explain how to install IIS (*Internet Information Services*), which is a web server that comes with Windows operating system.

To install IIS on **Windows Server 2003 SP2** and **Windows XP SP3**, follow these steps:

1. Open the **Start - Control Panel** menu.
2. Click **Add or remove programs**.
3. Click **Add or remove Windows component**.
4. Select the **Internet Information Services** item on the list and click **Next**.
5. Software installation then starts (to install IIS, users must have a Windows Install CD). Wait for the end of the process to perform the necessary settings.

To install IIS on **Windows Vista SP2**, **Windows 7 SP1**, **Windows 8**, **Windows 8.1**, and **Windows 10**, follow these steps, using an administrator account:

1. Open the **Start - Control Panel** menu on **Windows Vista SP2** and **Windows 7 SP1**, or open the **Apps - Windows System - Control Panel** item on **Windows 8** and **Windows 8.1** Initial screen. On **Windows 10**, right-click the **Start** menu and select the **Control Panel** item.
2. Click **Programs and Features**.
3. Click **Turn Windows features on or off**.
4. Locate the **Internet Information Services** item on the list and click ⊞ to expand all its sub-items.



Installation of Internet Information Services

5. Select, at least, the following options and click **OK**.
    - Web Management Tools
        - IIS Management Console
        - IIS Management Scripts and Tools
        - IIS Management Service
    - World Wide Web Services
        - Application Development Features
            - ASP
            - ISAPI Extensions
            - ISAPI Filters
        - Common Http Features
            - Static Content
            - Default Document

- HTTP Redirection
- Security
  - Basic Authentication
  - Request Filtering

6. Software installation then starts. Wait for the end of this process to perform the necessary settings.

4.4.1 IIS Configuration with E3 Server on the Same Machine

Together with E3 installation, the files e3web.asp, e3web2.asp, docwrite.asp, docwrite2.asp, and e3downloader.cab are already sent (located on the directory where E3 was installed, on **Web** folder). These files must be placed on the directory **C:\inetpub\wwwroot**, which is created during IIS installation. Apart from these files, users must also place WebViewer's installer package (e3webviewer-x86-enu.exe). This installer is used when a client station accesses a server for the first time, if E3 had not been previously installed on it. This file can be obtained at Elipse's *website*.

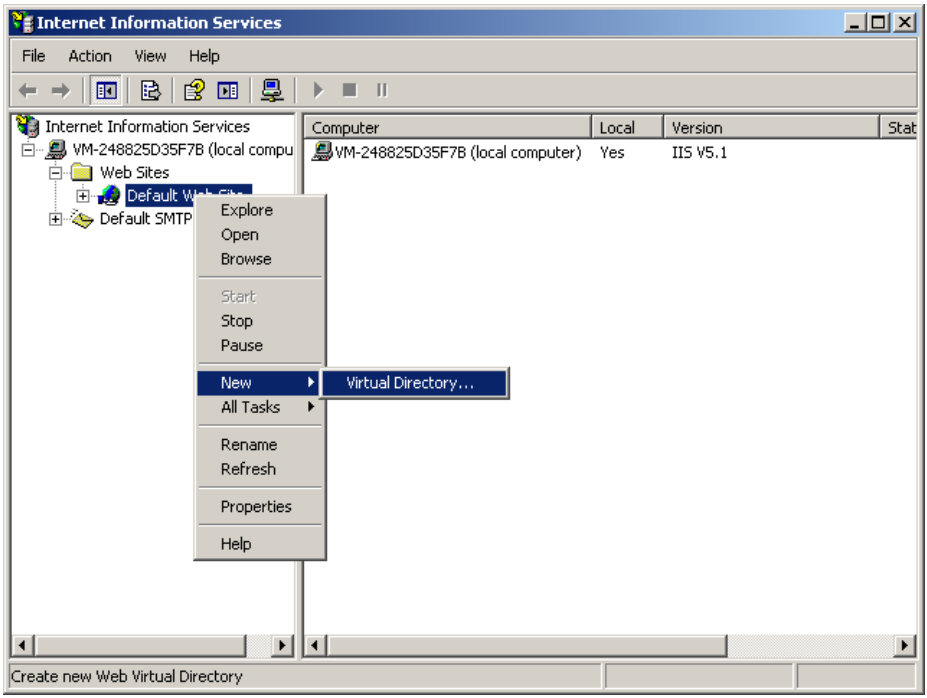
NOTE: The file e3webviewer-x86-enu.exe must match the executing E3 Server's version and build. Users must update all files on IIS directory if they update E3 Server's version.

After copying these files to folder **C:\inetpub\wwwroot**, users can start configuring IIS.

4.4.1.1 Windows Server 2003 and Windows XP

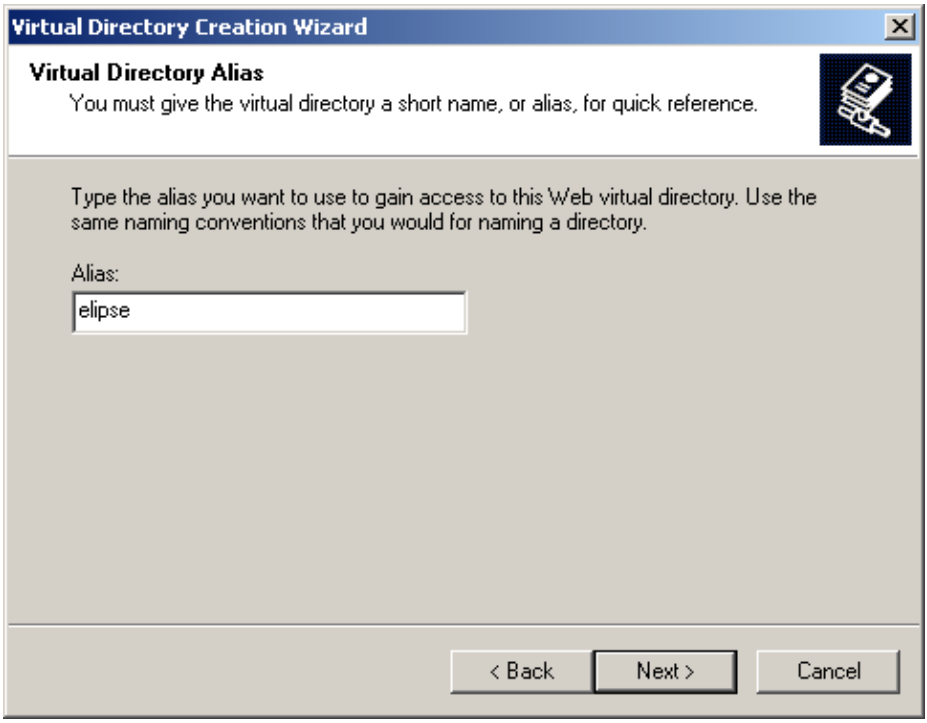
On **Windows Server 2003 SP2** and **Windows XP SP3**, follow these procedures:

1. Open the **Start - Control Panel - Administrative Tools** menu.
2. Open the **Internet Information Services** item on **Windows XP SP3** or the **Internet Services Manager** item on **Windows Server 2003 SP2**.
3. Right-click the **Default Web Site** item and select the **New - Virtual directory** option.



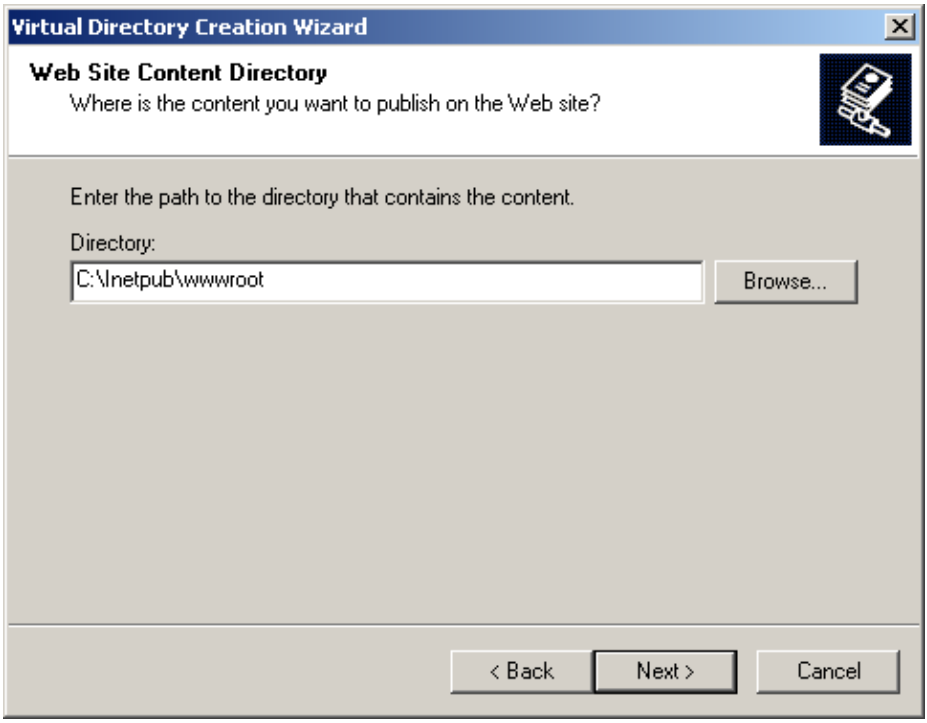
Add new Virtual Directory

4. On the next window, use any convenient and easy-to-type name on the address bar.



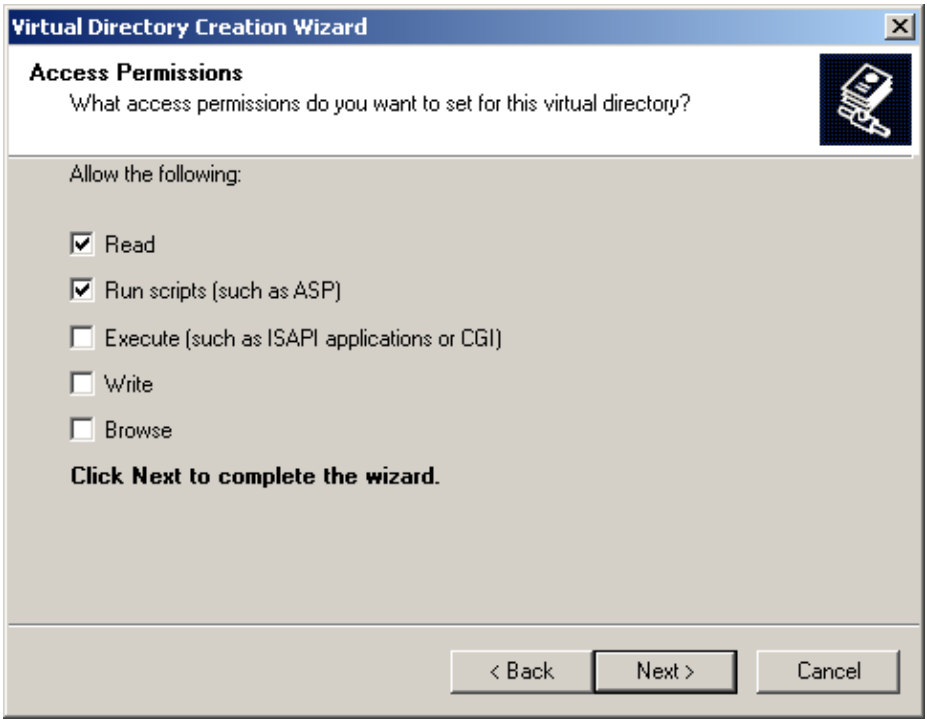
Virtual directory alias

5. The default directory can be freely changed by users. It is advisable to keep the default directory to reduce the number of steps until the end of the configuration process.



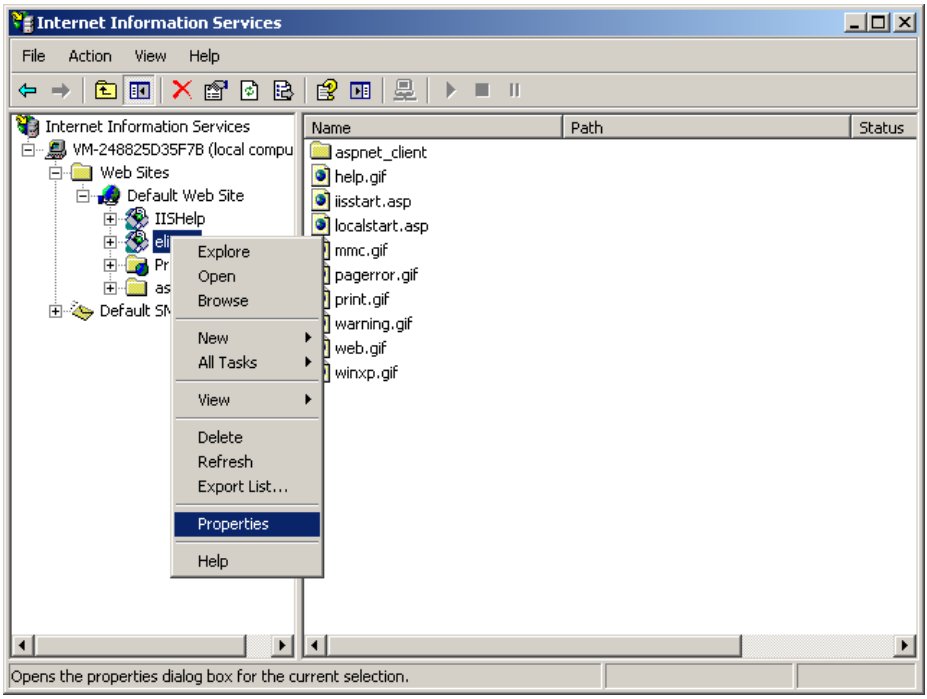
Web site content directory

6. The **Read** and **Run scripts** permissions are enough for an application to be completely functional via Internet.



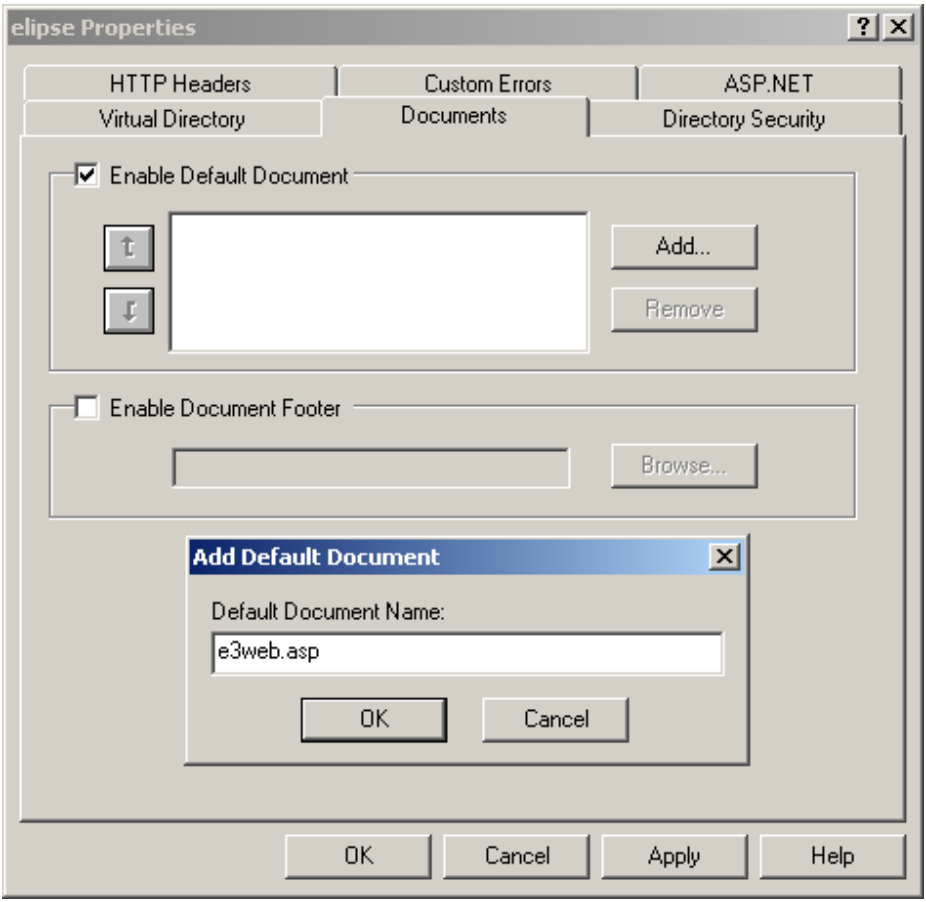
Access permissions

7. After finishing these configurations, users must define a file to execute when users press the ENTER key after typing an address on a browser.
8. Right-click the new virtual directory and select the **Properties** option.



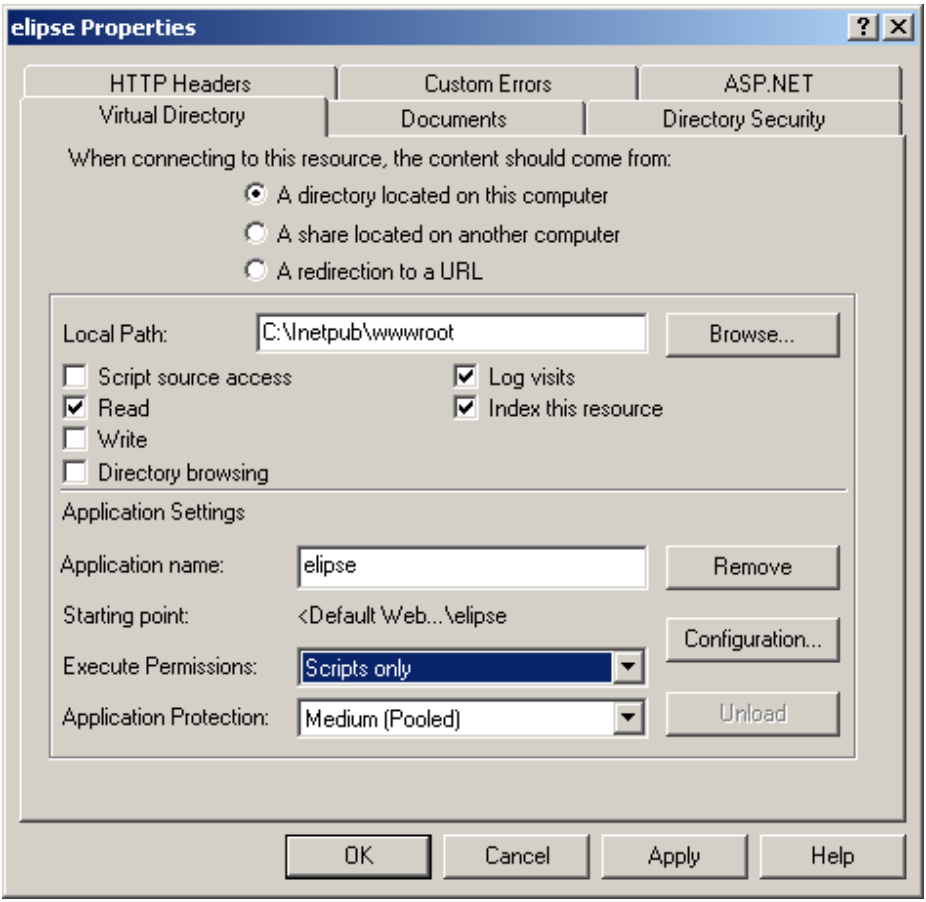
Properties of the virtual directory

9. Click **Remove** to exclude all available documents on the **Activate default document** frame. Next, click **Add** to include the file e3web.asp. This is the file used when users access the website where the application is hosted.



Enable default document

10. On **Virtual directory** tab select, on the **Execute permissions** combo box, the **Scripts only** option. Now, this application is already published and ready for access.



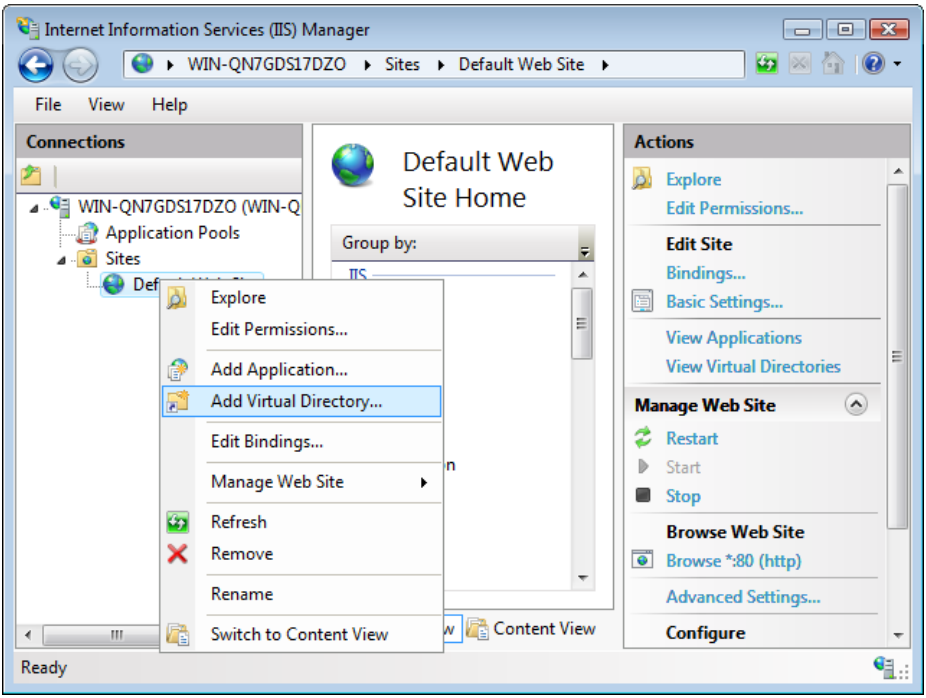
Virtual Directory tab

11. To view this application, type on browser's address bar the server's address or IP (for example, *http://server/virtualdirectory*).

4.4.1.2 Windows Vista

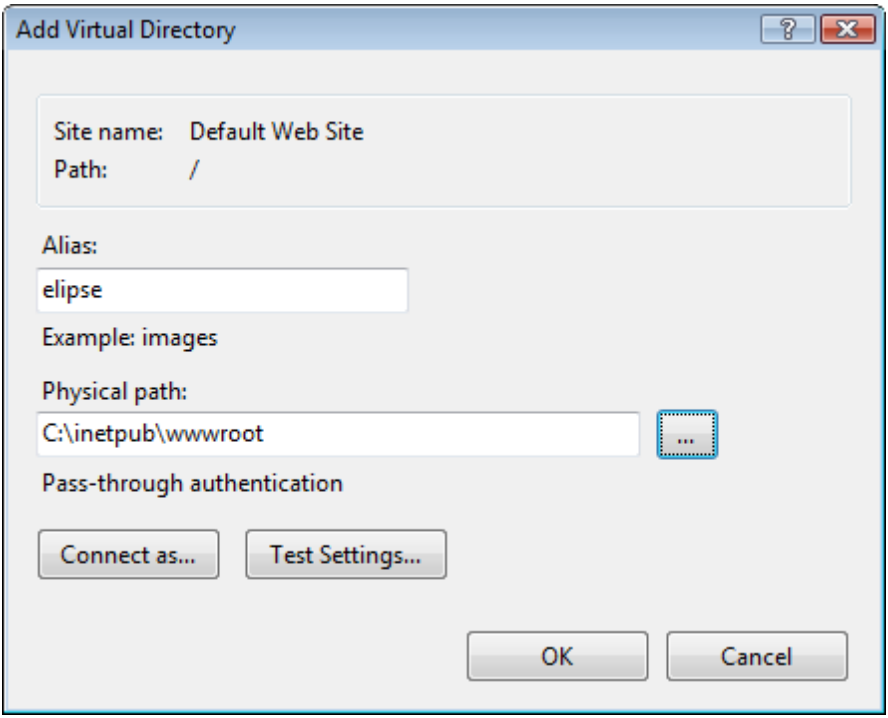
On **Windows Vista SP2** (IIS 7), follow these procedures:

1. Open the **Start - Control Panel - Administrative Tools** menu.
2. Open the **Internet Information Services (IIS) Manager** item.
3. Right-click the **Default Web Site** item and select the **Add Virtual Directory** option.



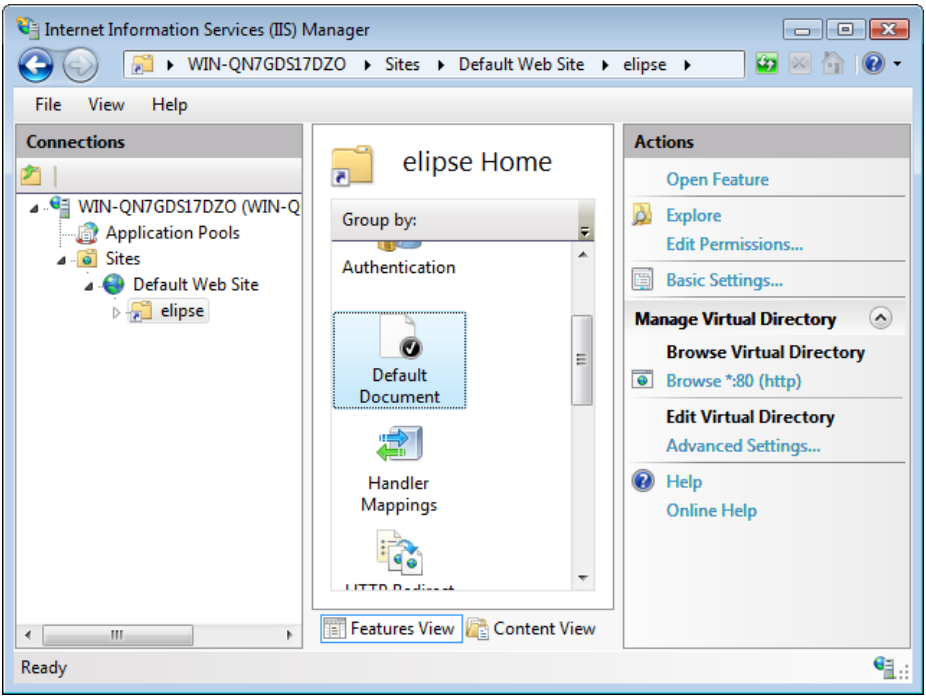
Add Virtual Directory

4. In the **Alias** field, use a convenient and easy-to-type name, because it is used to access this directory on a browser's address bar. In **Physical path**, click ... and select the directory where files were stored (this example uses **C:\inetpub \wwwroot**). Click **OK**.



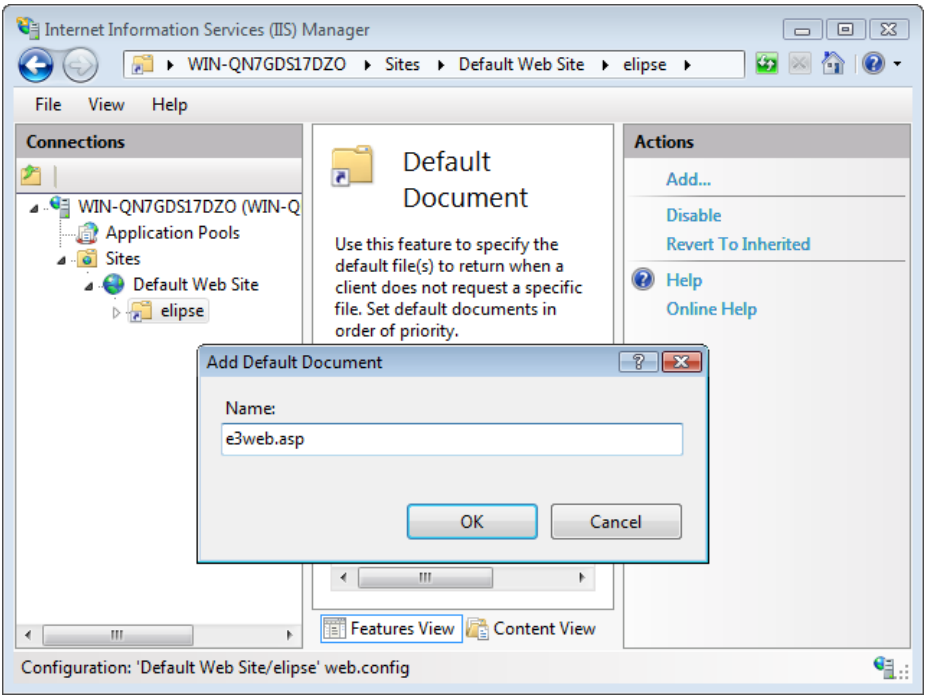
Physical path of files

5. Click the virtual directory just created, which is on **Default Web Site**, and select the **Default Document** option, inside the central frame.



Default document

6. Click **Open Feature** and then **Add** on the **Actions** panel, type "e3web.asp" in the **Name** field, and click **OK**.



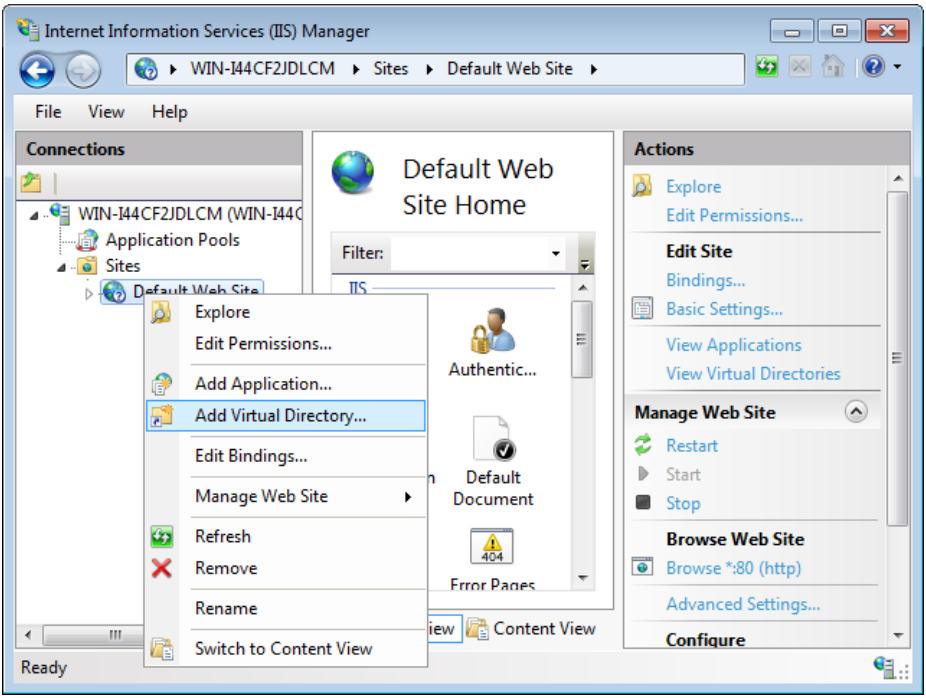
Add default document

7. After these procedures, the client station can access the HTTP server via Internet Explorer. To view this application, type on browser's address bar the server's address or IP (for example, *http://server/virtualdirectory*).

4.4.1.3 Windows 7

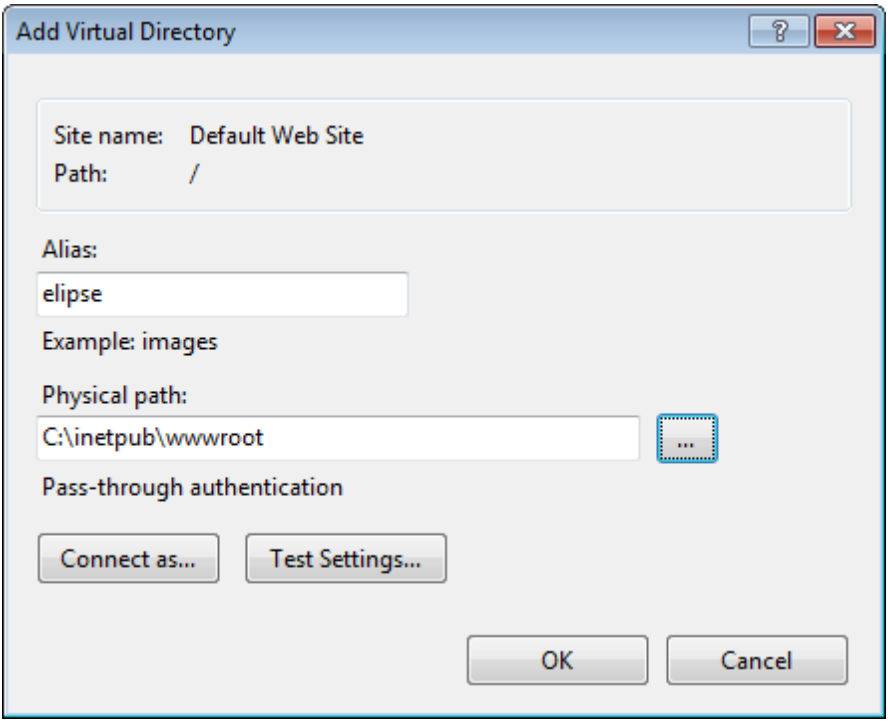
On **Windows 7 SP1**, follow these procedures:

1. Open the **Start - Control Panel - Administrative Tools** menu.
2. Open the **Internet Information Services (IIS) Manager** item.
3. Right-click the **Default Web Site** item and select the **Add Virtual Directory** option.



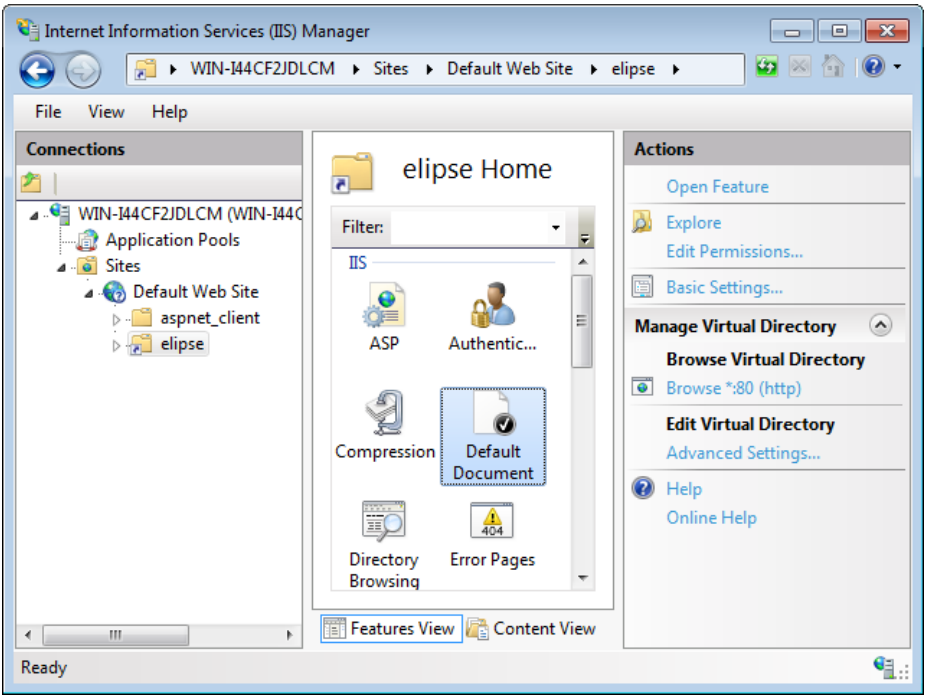
Add virtual directory

4. In the **Alias** field, use a convenient and easy-to-type name, because it is used to access the directory on a browser's address bar. In **Physical Path**, click ... and select the directory where files were stored (this example uses **C:\inetpub\wwwroot**). Click **OK**.



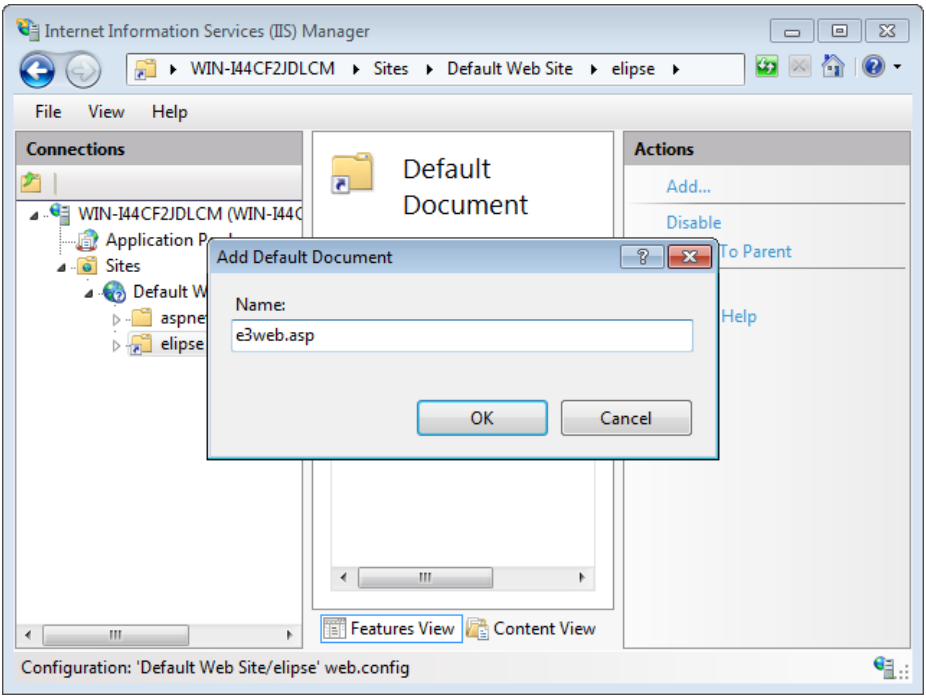
Physical path of files

5. Click the virtual directory just created, which is on **Default Web Site**, and select the **Default Document** option, inside the central frame.



Default document

6. Click **Open Feature** and then click **Add** on **Actions** panel, type "e3web.asp" in the **Name** field, and click **OK**.



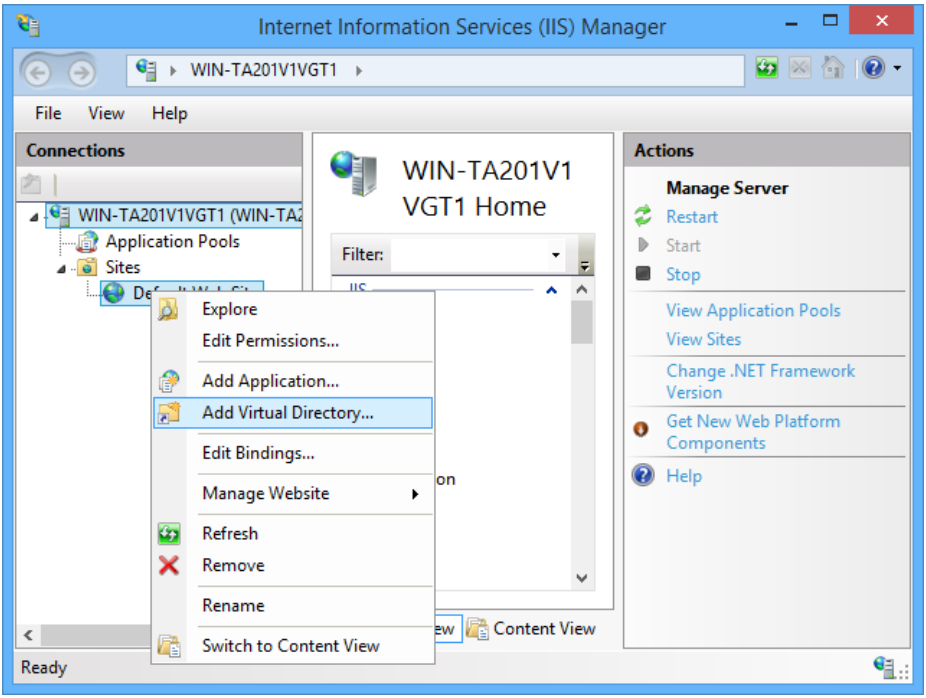
Add default document

7. After these procedures, the client computer can access the web server using Internet Explorer.

4.4.1.4 Windows 8 and Windows 8.1

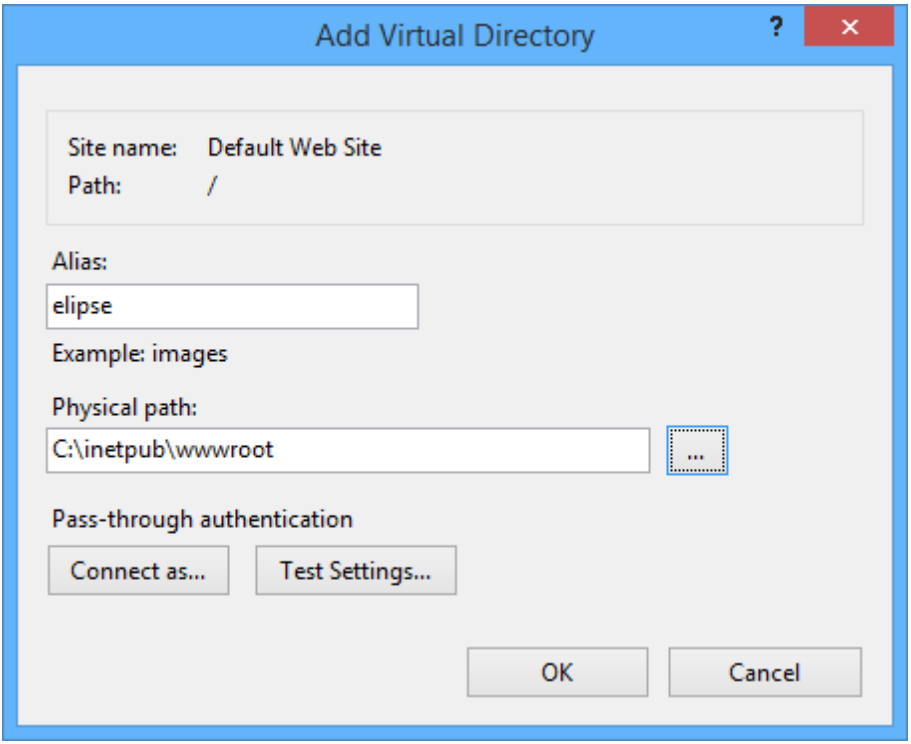
On **Windows 8** and **Windows 8.1**, follow these procedures:

1. On Initial screen, open the **Apps - Window System - Control Panel - Administrative Tools** item.
2. Open the **Internet Information Services (IIS) Manager** item.
3. Right-click the **Default Web Site** item and select the **Add Virtual Directory** option.



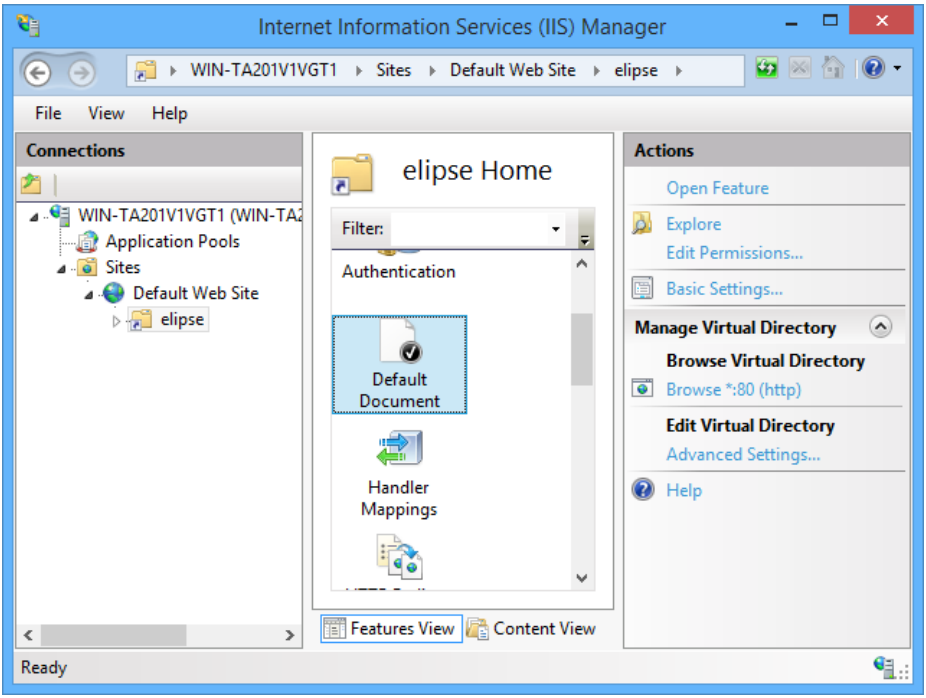
Add virtual directory

4. In the **Alias** field, use a convenient and easy-to-type name, because it is used to access the directory on a browser's address bar. In **Physical Path**, click ... and select the directory where files were stored (this example uses **C:\inetpub \wwwroot**). Click **OK**.



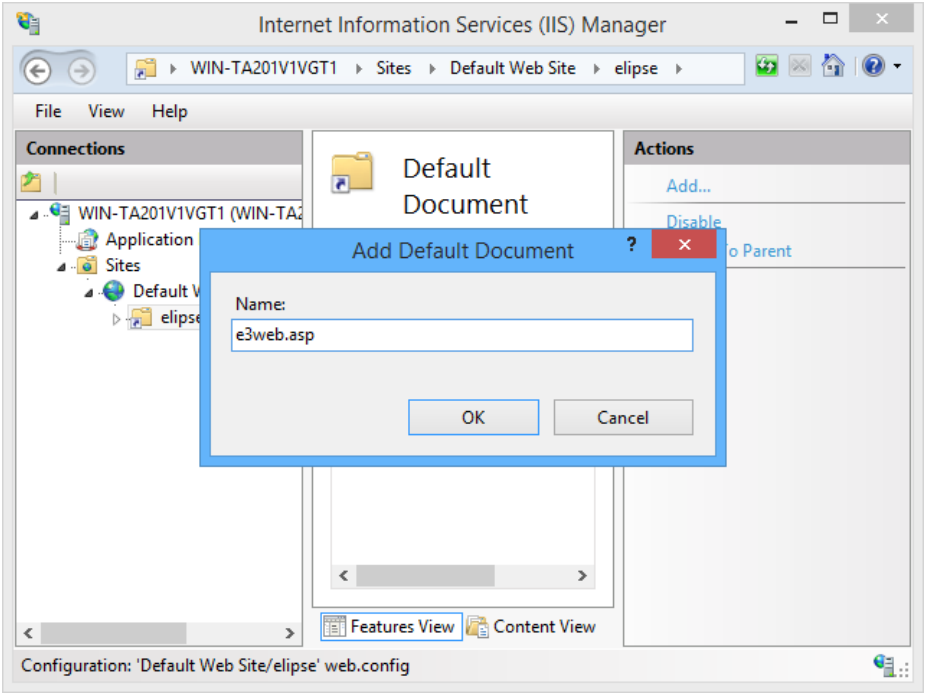
Physical path of files

5. Click the virtual directory just created, which is on **Default Web Site**, and select the **Default Document** option, inside the central frame.



Default document

6. Click **Open Feature** and then click **Add** on **Actions** panel, type "e3web.asp" in the **Name** field, and click **OK**.



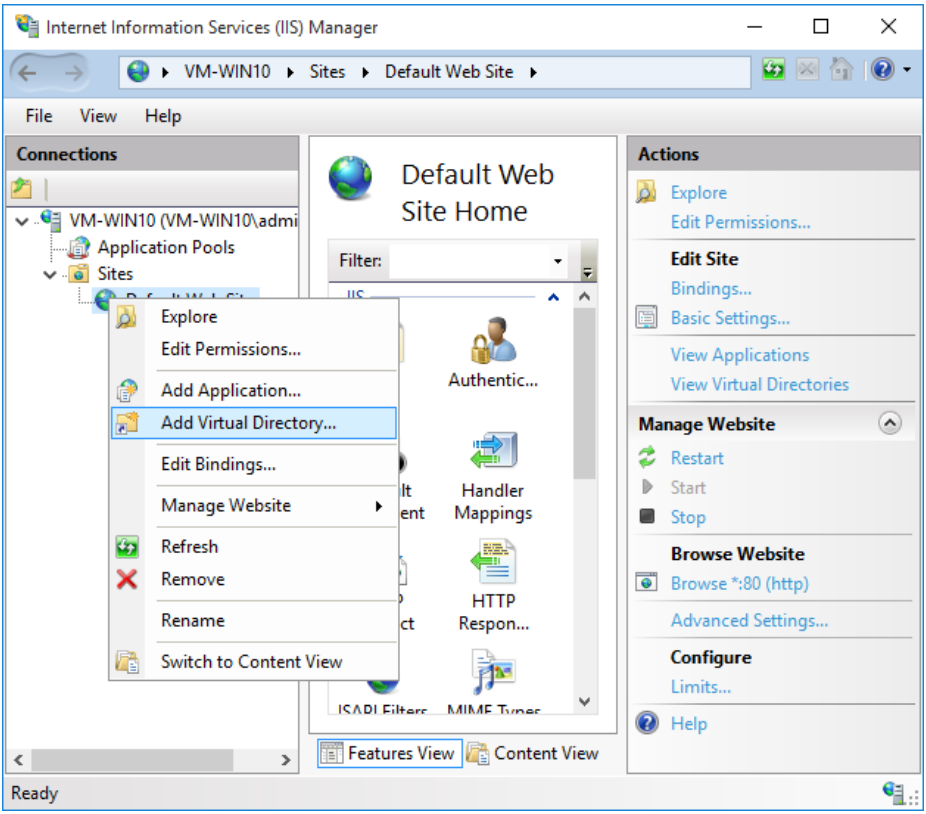
Add default document

7. After these procedures, the client computer can access the web server using Internet Explorer.

4.4.1.5 Windows 10

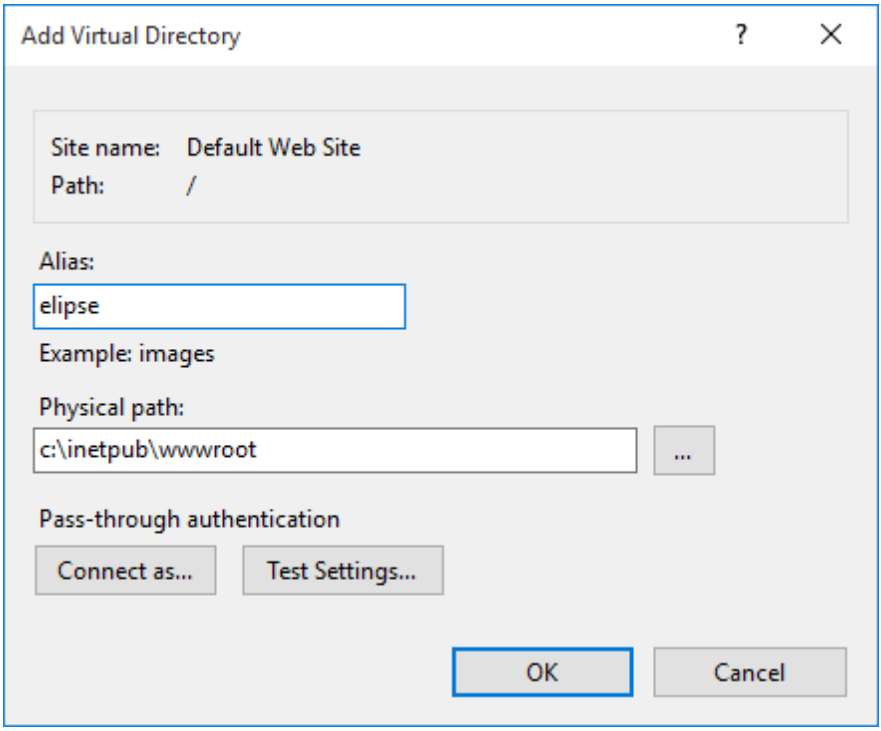
On **Windows 10**, follow these procedures:

1. Right-click the **Start** menu.
2. Click **Control Panel**.
3. Click **Administrative Tools**.
4. Open the **Internet Information Services (IIS) Manager** item.
5. Right-click the **Default Web Site** item and select the **Add Virtual Directory** option.



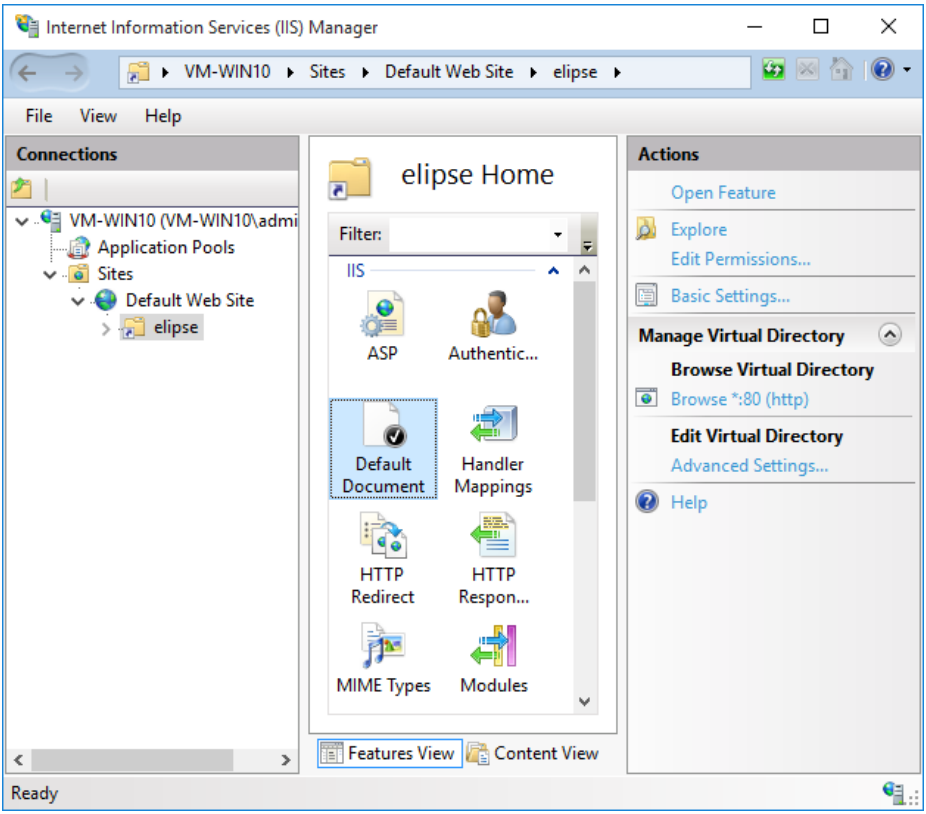
Add Virtual Directory

6. In the **Alias** field, type an easy and convenient name, because it is used to access this directory on the browser's toolbar. In **Physical Path**, click ... and select the directory where files were stored (this example uses **C:\inetpub\wwwroot**). Click **OK**.



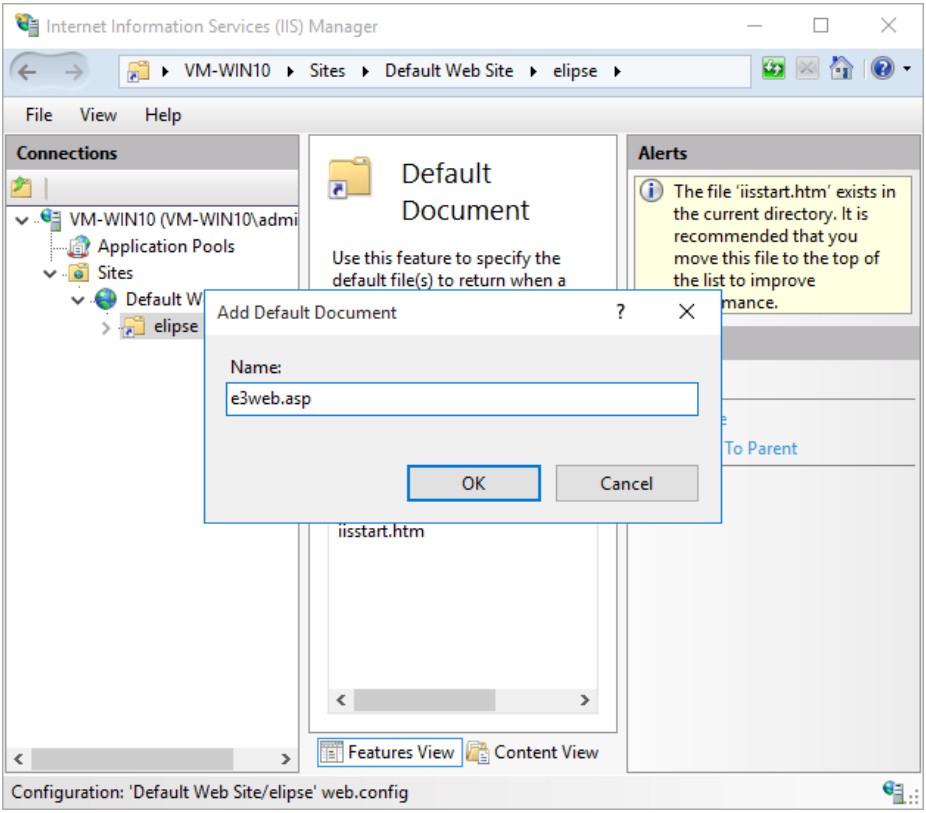
Physical path of the files

7. Click the virtual directory just created, which is on **Default Web Site**, and select the **Default Document** option, inside the central frame.



Default document

8. Click **Open Feature** and then **Add** on **Actions** panel, type "e3web.asp" in the **Name** field, and click **OK**.



Adding a default document

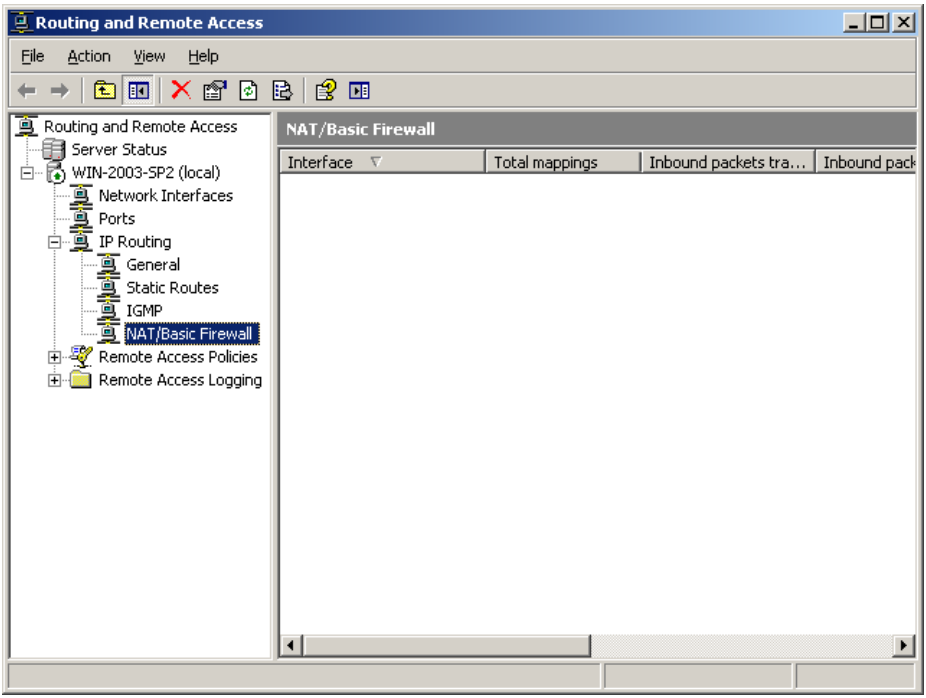
9. After these procedures, the client computer can access the web server using Internet Explorer.

4.4.2 IIS Configuration with E3 Server on a Different Server

For this type of setup, users must use **Windows Server 2003 SP2**, because only this operating system has the **Routing and Remote Access** application. Follow these steps to configure it:

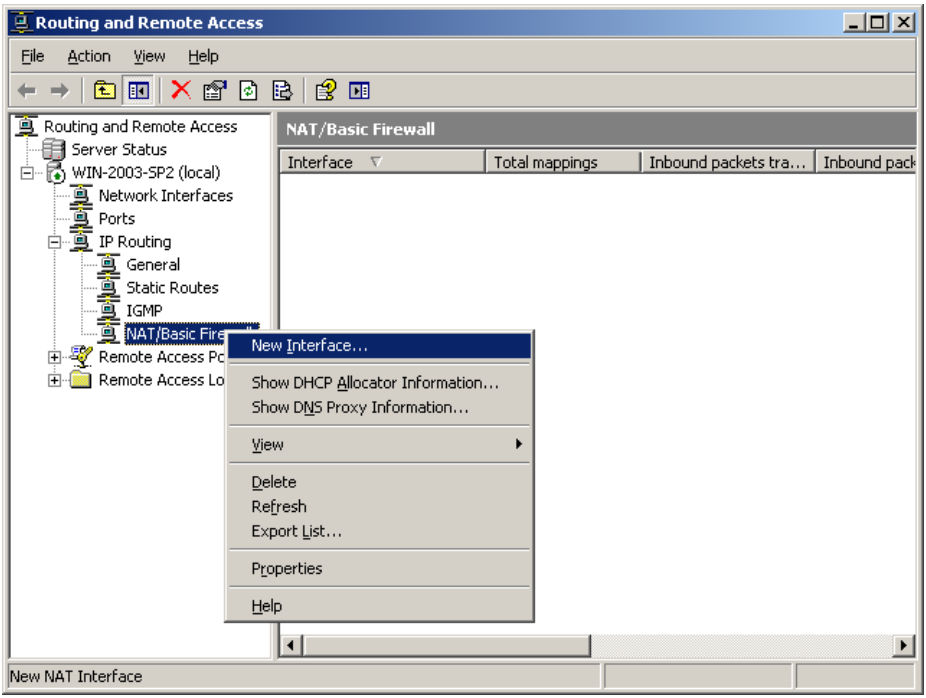
1. Open the **Routing and Remote Access** application on **Start - Control Panel - Administrative Tools** menu.

2. On the list of IIS servers, expand the sub-items of the selected server and select the **NAT/Basic Firewall** item on **IP Routing**.



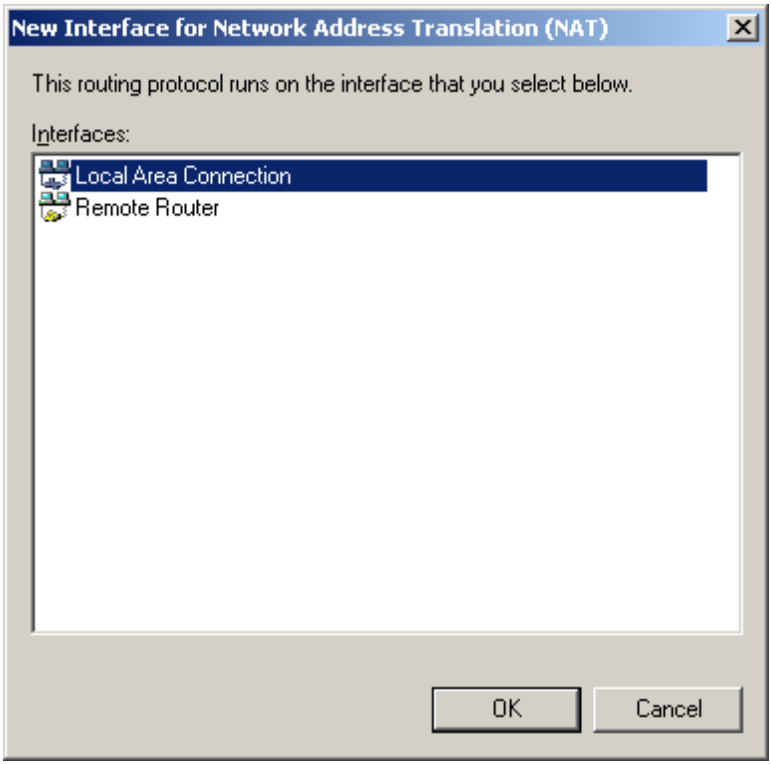
Routing and remote access configuration

3. Right-click it and select the **New Interface** option.



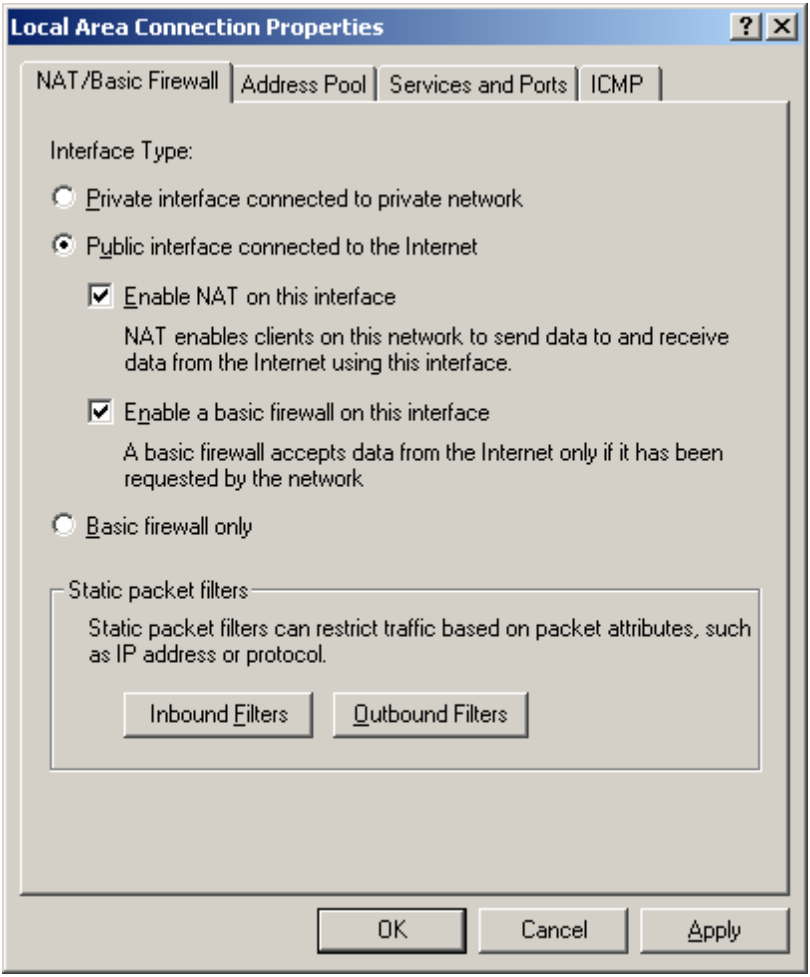
Defining a new interface

4. Select the interface exposing E3 Server on the Internet. Notice that the selected network device must be the one that performs the connection with the Internet and not the one that connects IIS to the Intranet. Click **OK**.



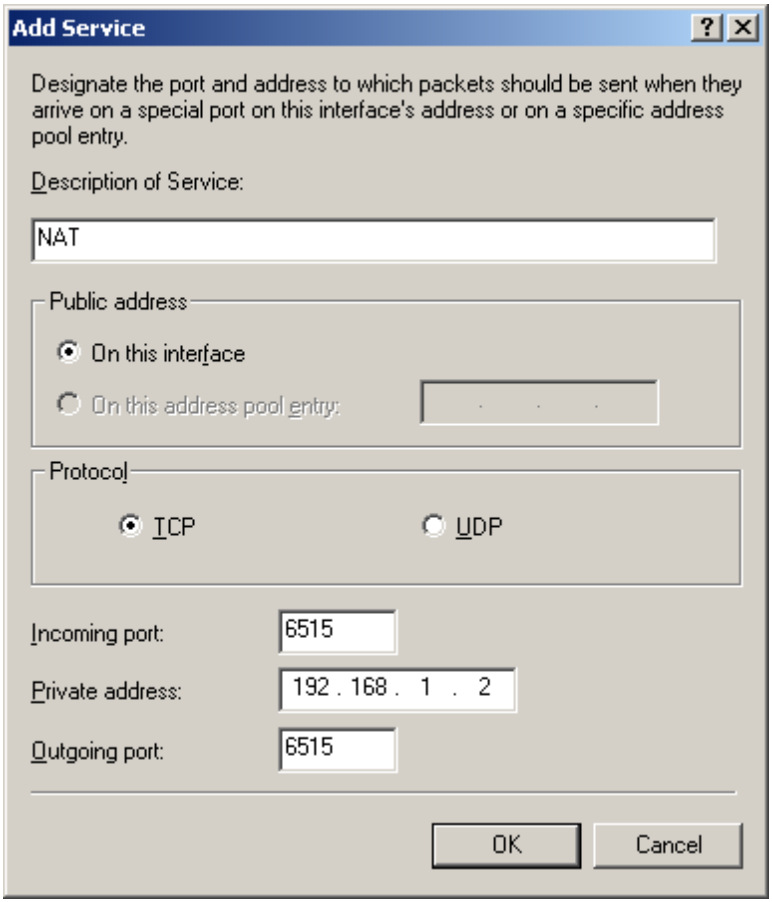
Selecting a network device for the interface

5. Select the **Public interface connected to the Internet** option on **NAT/Basic Firewall** tab.



Defining an interface as public

6. Select the **Services and Ports** tab and click **Add**. Type a name for this service in the **Description of Service** field and select the **TCP** option on **Protocol** group. Type the value "6515" in the **Incoming port** and **Outgoing port** fields, because this is the port used by E3 to communicate. In the **Private address** field, type the IP address of this computer.



Defining which network computer becomes public

7. Now users must change the file docwrite2.asp. Open this file (which is published on IIS virtual directory) in Notepad and change the next line.

```
var domain = getDomain();
```

To:

```
var domain = "IIS Server's external IP";
```

Next, the modified source code of file docwrite2.asp:

```
function getDomain() {
  // document.location.host returns server and port.
  // This function returns document name, without port.
  return document.location.host.split(':')[0];
}
function writeApplet() {
  var content = "<object classid='clsid:7EB4D157-FACC-45BB-9536-
```

```
C14B9DCE3CA7'";
  content += " width='100%' height='100%'>";
  var domain = getDomain();
  // if domain is on a different server, it must be set below
  // domain = "myserver";
  content += "<PARAM NAME='Domain' VALUE='" + domain + "'>";
  content += "<PARAM NAME='Screen' VALUE=''>";
  content += "<PARAM NAME='CachePath' VALUE=''>";
  content += "<PARAM NAME='Ping' VALUE='0'>";
  content += "<PARAM NAME='StartReadOnly' VALUE='0'>";
  content += "</object>";
  document.write(content);
}
writeApplet();
```

4.4.2.1 E3 Server Configuration

This configuration is the same as the one described in the topic **IIS Configuration with E3 Server on the Same Machine**. After this operation, servers are configured and ready to be accessed.

4.5 Viewing on Client Application

If the server is using a web server, such as IIS, type the server's address or IP on browser's address bar (for example, *http://servername/virtual_directory* or *http://192.168.1.2/virtual_directory*).

During server's first access, the browser starts installing components, in case they had not been previously installed, as explained at the beginning of this chapter. This component is signed by Elipse Software, and users must accept the installation to start the necessary configurations.

WebViewer Installation

After installation, WebViewer is opened in the browser, and viewing server's application. Next time it is not necessary to install these components again, and connection is faster.

NOTE: Client's version must match server's version. For this, the installer file (e3webviewer-x86-enu.exe) on the server must always be the most updated version.

CHAPTER 5

Version Update

Periodically, Elipse releases new software versions, which contain new tools or updates. Such updates can be downloaded at *www.elipse.com.br*. There are also demo versions available. To get these updates, follow these steps:

1. *Download* it at Elipse's website.
2. Follow the on-screen procedures and wait them to finish. If there is already an Elipse E3 version installed, installer then asks to remove the older one. The message **Installation completed** appears if the process is successful. A program group named **Elipse E3** is then created on the computer.

CHAPTER 6

Help and Support

Elipse Software has many ways to help answering user questions. Documentation sources include Online Help, User's Manual, and the website (*www.elipse.com.br*), where users can find several information, including download of current versions, and also Elipse Knowledgebase (*kb.elipse.com.br*), containing articles about Drivers, E3, Elipse Power, SCADA, etc. Yet, if users still cannot find a solution for a specific problem, they can contact our technical support at *support@elipse.com.br*.

6.1 Troubleshooting Guide

Here are some steps that may help users to isolate a problem before calling technical support.

6.1.1 Revise Product Documentation

This is one of the most productive ways to find answers to user questions. Users can check the following documentation:

- **E3 Release Notes**: This document contains late-breaking information about new features. It is located on E3's installation directory
- **Manuals**: Users can find information about E3 tools and resources on both **E3 User's Manual** and **Scripts Reference Manual**. These manuals are electronically available in CHM format, and in printed format with **Master** and **Studio** software packages
- **VBScript Language Reference**: Official Microsoft documentation for VBScript language. Users can also find this resource by clicking **Documentation - VBScript Reference Guide** icon on **Start - All Programs - Elipse Software - Elipse E3** program group
- **Microsoft Forms Visual Basic Reference**: Official Microsoft documentation for MSForms objects. Users can also find this resource by clicking **Documentation - MSForms Reference Guide** icon on **Start - All Programs - Elipse Software - Elipse E3** program group

6.1.2 Reproduce the Problem

Reproducing a problem is the first step to solve it. Once users can reproduce a problem, they can start finding solutions for it. The following questions may give users more insight into the problem:

Does this problem occur with only one application?

Users may want to try another application to check if they can reproduce the problem. If they cannot reproduce it with other applications, think about what is specific about this application.

Does this problem occur with only one machine?

If it does, it may be related to system configuration. Try using a different video driver, or even modifying system configurations to check if this problem persists. It is advisable to have a machine with configurations not much different from the average.

Which E3 version is in use?

Users can check software version by opening the **About E3 Studio** item on **Help** menu. Applications generated in older versions are fully compatible with recent ones. However, applications generated in recent versions cannot be edited or executed in older versions.

Under which circumstances does this problem occur?

Does the amount of available memory affect this problem?

How about other programs running on the system?

Is there enough disk space available?

6.1.3 Isolate the Problem

After checking under which circumstances this problem occurs, users can isolate it. Once a problem is isolated, it is much easier and quicker to find solutions for it.

Try isolating the component causing this problem. Users can use information about under which circumstances it happened to help isolate it. If this problem occurs with a script, users may want to create a smaller example. If it is too large, try splitting it, and then executing it step by step.

6.2 Frequently Asked Questions

During installation, the following message appears: "The following applications should be closed before continuing the install"

POSSIBLE REASON

Another E3 version is installed and opened while trying to install this new version.

SOLUTION

Close the older version first, and then continue the installation by clicking **Retry**.

During installation, the following message appears: "Files in use. Files that need to be updated are in use"

POSSIBLE REASON

An Elipse SCADA version is installed and opened while trying to install Elipse E3.

SOLUTION

Close Elipse SCADA and continue E3 installation by clicking **Retry**.

After installation, the following message appears when I try to run the software: "E3 Studio license not found in this server. Do you want to run in demonstration mode?"

POSSIBLE REASON

There are two possible reasons:

a) Protection device or detection drivers are not correctly installed.

b) USB port setup is not correct or this port is damaged.

SOLUTION

For each reason, try the following:

a) Run HaspDinst.exe application with **-I** option. This can be performed via **Run** option on Windows **Start** menu. The command prompt is:

```
C:\Program Files\Elipse Software\Elipse E3\HASP\haspdinst.exe -I
```

b) Test USB port with another known device, such as a printer). Users can also check on computer settings whether this USB port is correctly configured.

For more information about E3's **Demo** mode limitations, please check the topic **Limitations of Demonstration Mode** on **E3 User's Manual**.

I moved the application to another computer and now it does not display images anymore

POSSIBLE REASON

Path to picture files is incorrect.

SOLUTION

Users must create the same directory structure (the same path) as the original computer.

6.3 Technical Support

The following sections describe all technical support services available.

6.3.1 E-mail

- **Headquarters**: *suporte-br@elipse.com.br*
- **Taiwan**: *evan@elipse.com.br*

6.3.2 Internet

- Get the latest news and software versions at *Elipse Software's website*
- Search for technical articles, tips, frequent questions, and troubleshooting at *Elipse Knowledgebase*
- Participate on discussions and experiences about products at *Elipse Forum*
- Watch videos teaching how to use products at *Elipse Software's official channel on Youtube*

6.3.3 Telephone

Phone support is available weekdays. When calling, users must have their computer nearby, and running E3. Users must also have all available documentation, along with the following information:

- Software version
- License number
- Hardware configuration (CPU, memory, network, etc.)
- Operating system (Windows Server 2003, XP, etc.)
- Error messages, if available
- Name, company, and telephone or fax number
- A brief description about this problem and its circumstances
- A brief description about all attempts to solve this problem

Please call the following numbers:

- **Headquarters**: (+55 51) 3346-4699
- **Taiwan**: (+886 7) 323-8468

Headquarters
Rua 24 de Outubro, 353 - 10º andar
90510-002 Porto Alegre
Phone: (+55 51) 3346-4699
Fax: (+55 51) 3222-6226
E-mail: elipse-rs@elipse.com.br

Taiwan
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Phone: (+886 7) 323-8468
Fax: (+886 7) 323-9656
E-mail: evan@elipse.com.br

Check our website for information about a representative in your city or country.

www.elipse.com.br

kb.elipse.com.br

forum.elipse.com.br

www.youtube.com/elipsesoftware

elipse@elipse.com.br

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