

[Tech Note 786](#)

Troubleshooting Wonderware Information Server (WIS)

Part One: HTTP Error 500

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Introduction

This troubleshooting guide is the first in a projected series.

HTTP Error 500 is a very common issue when you access the WIS 4.x Home Page.

In general, The HTTP Error 500 is a "server-side" error, meaning that the problem is not with your PC or your Internet connection. Instead it is a problem with the web site's server. In WIS 4.x 's world, this could mean that something is wrong in COM+ settings, the verification of SuiteVoyager Database connection, license verification, etc.

Application Versions

- WIS 4.0 and later
- Windows 2008 Server (R2)

Let's start by discussing HTTP Error 500 with real-world cases. Click the following links to read details about each case.

- [Wonderware SuiteVoyager Com+ Identity Password is Out of Date](#)
- [Wonderware SuiteVoyager COM+ Object Cannot be Shutdown or Started](#)
- [Wonderware License Manager is Not Installed](#)
- [Computer Name is Changed After WIS 4.x Configured](#)
- [Enable-Parent-Paths Option in IIS 6.0 or IIS 7.x is Unchecked](#)
- [The web.config File Contains Extra ISAPI Lines](#)

Wonderware SuiteVoyager COM+ Identity Password is Out of Date

By default, WIS 4.x Configurator sets the *current* logon user's credential in **This user** account of the **Wonderware SuiteVoyager COM+ (WSCOM+) Identity**. When WIS 4.x starts to launch the WIS Home Page, the corresponding WIS ASP pages need to create a number of instances of COM objects, such as CheckRole, wwNavigation, wwSecurity, etc. for obtaining contents of the Home Page.

The following is an instance of HTTP Error 500 which is related to WSCOM+ Identity.

Because of security concerns, some companies' group policies require their users to change passwords periodically. However, changing password in OS's User Manager *does not* apply the already-used password in the **This user** account of a COM+ Application. The administrator of the **Wonderware SuiteVoyager COM+** object needs to update the password manually (Figure 1 below).

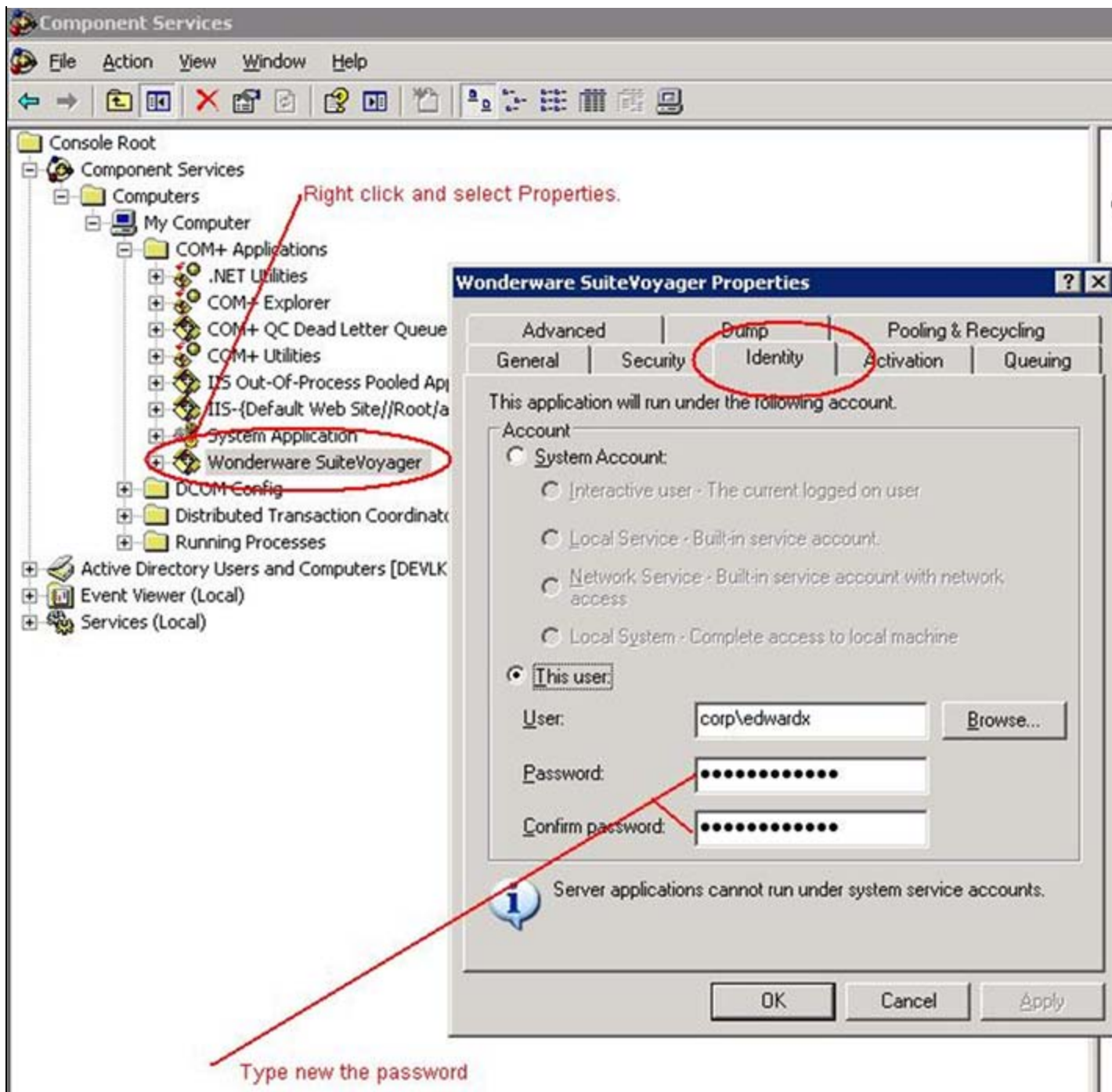


FIGURE 1: CHANGE OBJECT'S THIS USER PASSWORD

Wonderware SuiteVoyager COM+ Object Cannot Be Shutdown or Started

By design, WIS 4.x puts the Web Apps, Business Rules and Data Access COM components into a COM+ Application called **Wonderware SuiteVoyager**. When the user visits WIS Home Page, there are a number of COM components under the **Wonderware SuiteVoyager** context that are needed to create instances. If the Wonderware SuiteVoyager Application object cannot be started, visiting the WIS home page will throw an HTTP Error 500.

- To verify this condition, right-click the Application and click **Start** or **Shutdown** (Figure 2 below). An exception is generated (Figure 3 below).

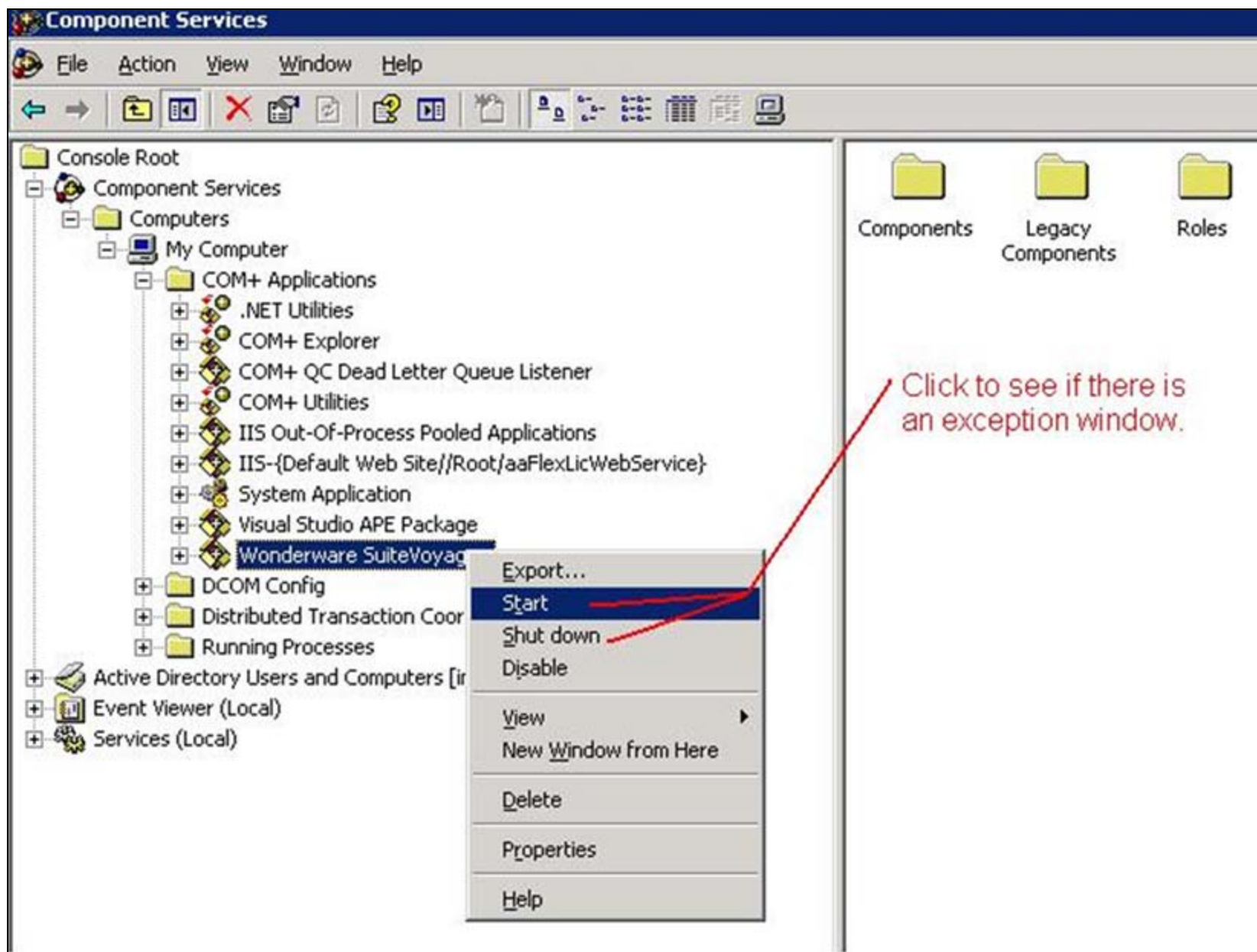


FIGURE 2: START OR SHUTDOWN WONDERWARE SUITEVOYAGER COM+ APPLICATION

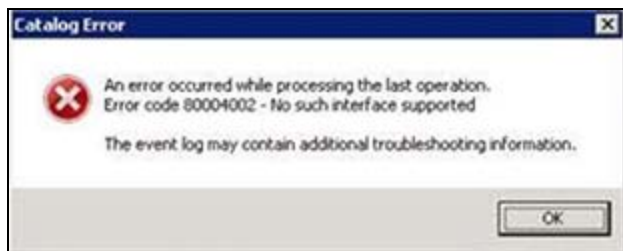


FIGURE 3: CATALOG ERROR MESSAGE

Wonderware Tech Support has not discovered the root cause of this problem. However, the workaround is to reboot the WIS 4.x Server.

Wonderware License Manager Is Not Installed

The WIS License mechanism is managed by these Windows services:

- ArchestrA License Server (aaLic) and
- Wonderware License Manager (wwLic)

aaLic can be considered as a license provider. **wwLic** is a license consumer which controls WIS Portal access and provides information for WIS License Manager.

Wonderware Tech Support has reviewed a number of cases with the HTTP Error 500 where the **wwLic** is not installed during WIS Configuration.

Figure 4 (below) shows the **WIS Services** that should be installed by the Configurator.

Wonderware Historian SystemDriver	Generates ...		Manual	Local System
Wonderware License Manager		Started	Automatic	Local System
Wonderware NetDDE Helper			Manual	Local System
Wonderware RunTime DB Handler		Started	Automatic	Local System
Wonderware SuiteLink		Started	Automatic	Local System
Wonderware SuiteVoyager Alarm Consumer		Started	Automatic	Local System
Workstation	Creates an...	Started	Automatic	Local System
World Wide Web Publishing Service	Provides W...	Started	Automatic	Local System

WIS Configurator should install these three services successfully.

FIGURE 4: WIS SERVICES INSTALLED BY THE CONFIGURATOR

One check point for this services installation issue is to verify the existence of the **[C]:\Inetpub\Scripts** directory. If this directory does not exist, you can copy it and all its contained contents from your WIS 4.x installation disk at **[CD Image\scripts]**.

Although Wonderware development is working on the root cause of this issue, one workaround provided by Wonderware Technical Support is to **download, extract and run** the **Service Installation** utility.

You can use this utility on the WIS Server machine to install the services mentioned in the Figure 4 (above) one service at-a-time (Figure 5 below). After installation, refresh the Services list (Figure 4) and you should see the three WIS services have been started.

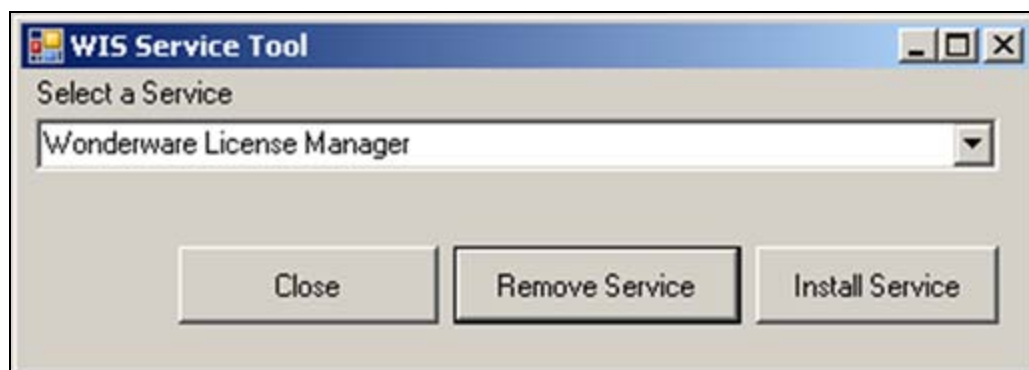


FIGURE 5: INSTALL/REMOVE WIS SERVICES

Computer Name is Changed after WIS 4.x Configured

WIS 4.x needs to build up the SuiteVoyager database connection during its home page displaying process.

If the computer name on which the SuiteVoyager database is located is changed after WIS 4.x has been configured successfully, you will see HTTP Error 500 when you try to access WIS 4.x Home page again.

The computer name is saved at the Registry location **HKEY_LOCAL_MACHINE\SOFTWARE\Wonderware\SuiteVoyager\AdminDB**. The value is **ServerName**, the WIS 4.x server machine.

Enable-Parent-Paths Option in IIS 6.0 or IIS 7.x is Unchecked

WIS implementation uses a large number of relative parent paths in the Include statements. The implementation requires that IIS 6.0 or 7.xs Parent-Paths option is enabled.

Because of security rule in some customers' environments, the Parent-Path is disabled on the [Wonderware] virtual directory. This is also one of the root causes of HTTP error 500.

In fact, enabling Parent-Paths option at the **Default Web Site** root may create a security risk, since it could allow someone to access files outside the root websites directory. However, in WIS 4.x, we enable the Parent-Paths option at the **Wonderware** level and set the Execute Permission as **Script** only. Enabling this option at this level should not create a Security Risk.

Figures 6-11 (below) show how to enable Parent-Paths in IIS 6.0 and IIS 7.x.

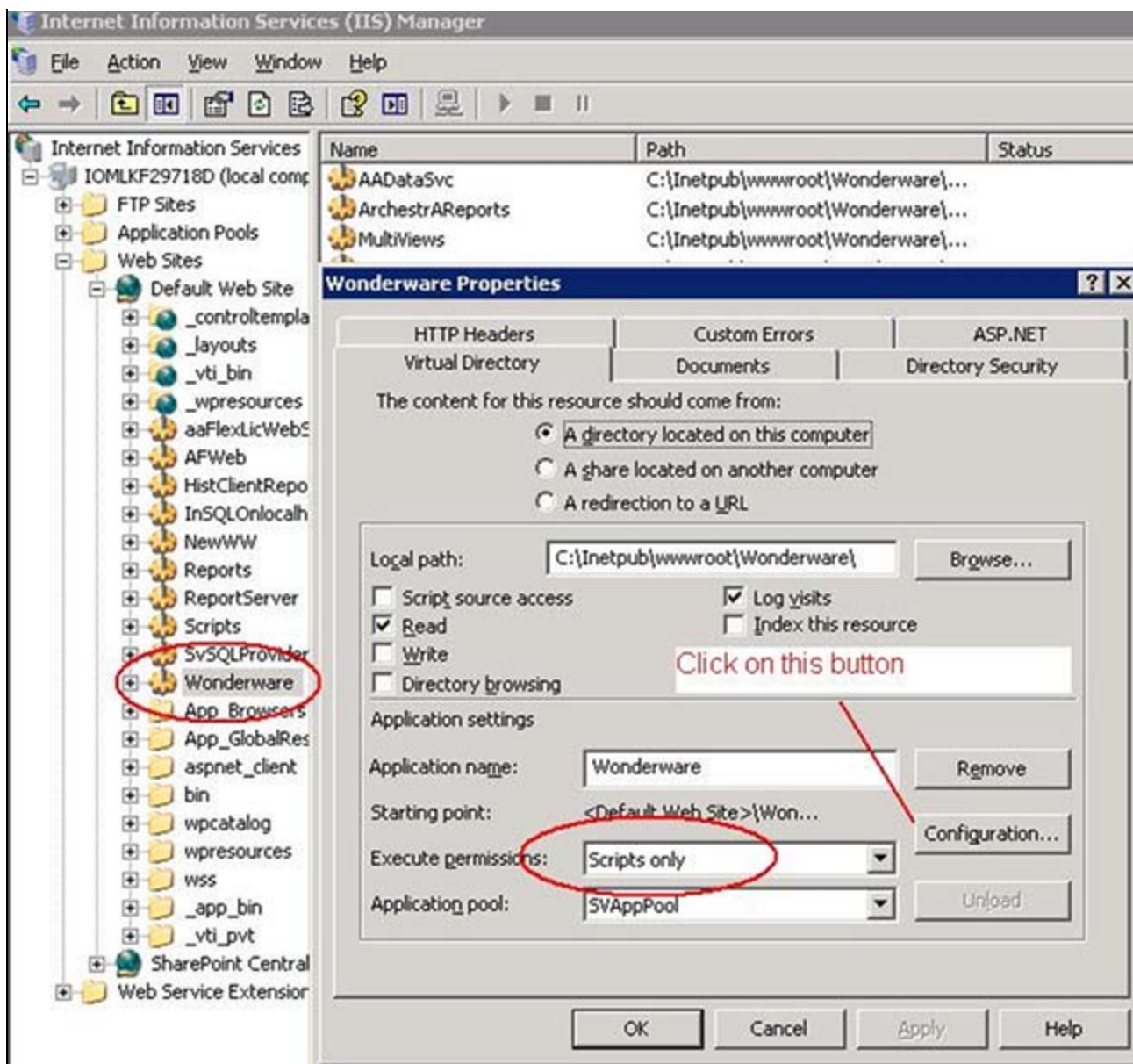


FIGURE 6: ENABLING PARENT PATHS IN IIS 6.0 (1)

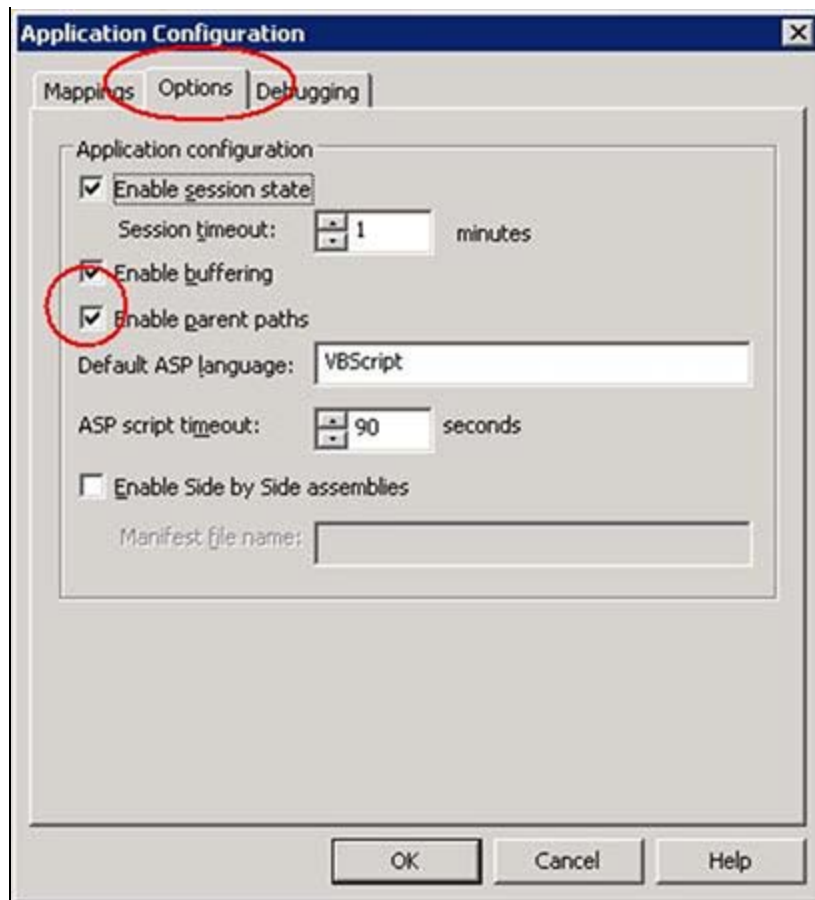


FIGURE 7: ENABLING PARENT-PATHS IN IIS 6.0 (2)

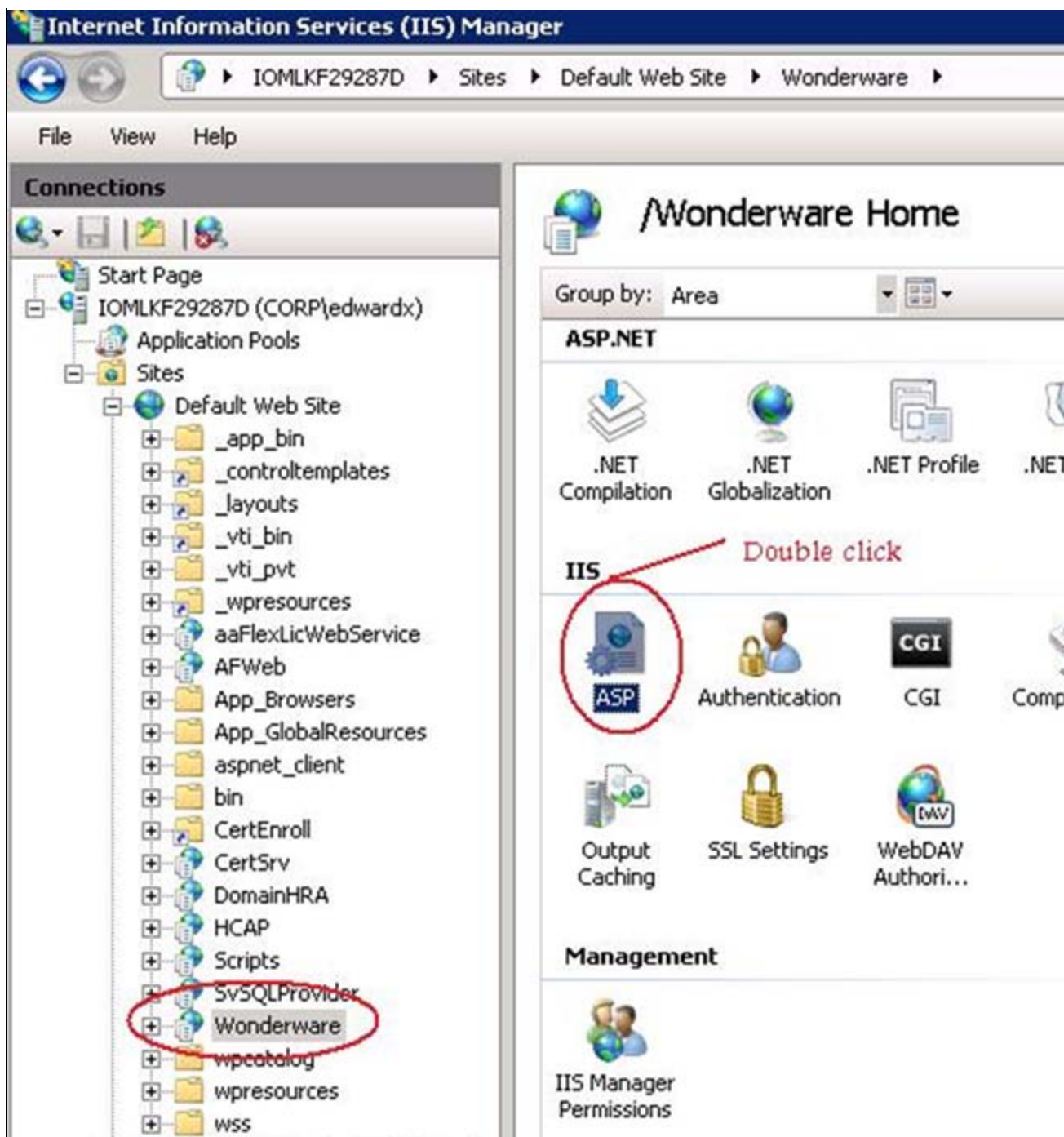


FIGURE 8: DOUBLE-CLICK ASP TO CHECK THE PARENT-PATHS IN IIS 7.0

The screenshot shows the IIS Manager interface. The left pane displays a tree view of the server configuration, with the 'Wonderware' site selected under the 'Default Web Site'. The right pane shows the configuration for the 'ASP' application, with the 'Behavior' section expanded. The 'Enable Parent Paths' property is set to 'True' and is circled in red. The 'Wonderware' site name in the left pane is also circled in red.

Behavior	
Code Page	0
Enable Buffering	True
Enable Chunked Encoding	True
Enable HTML Fallback	True
Enable Parent Paths	True
Limits Properties	
Locale ID	0
Restart On Config Change	True
Compilation	
Debugging Properties	
Script Language	VBScript
Services	
Caching Properties	
Com Plus Properties	
Session Properties	

FIGURE 9: MAKE SURE THAT ENABLE PARENT PATHS VALUE IS TRUE

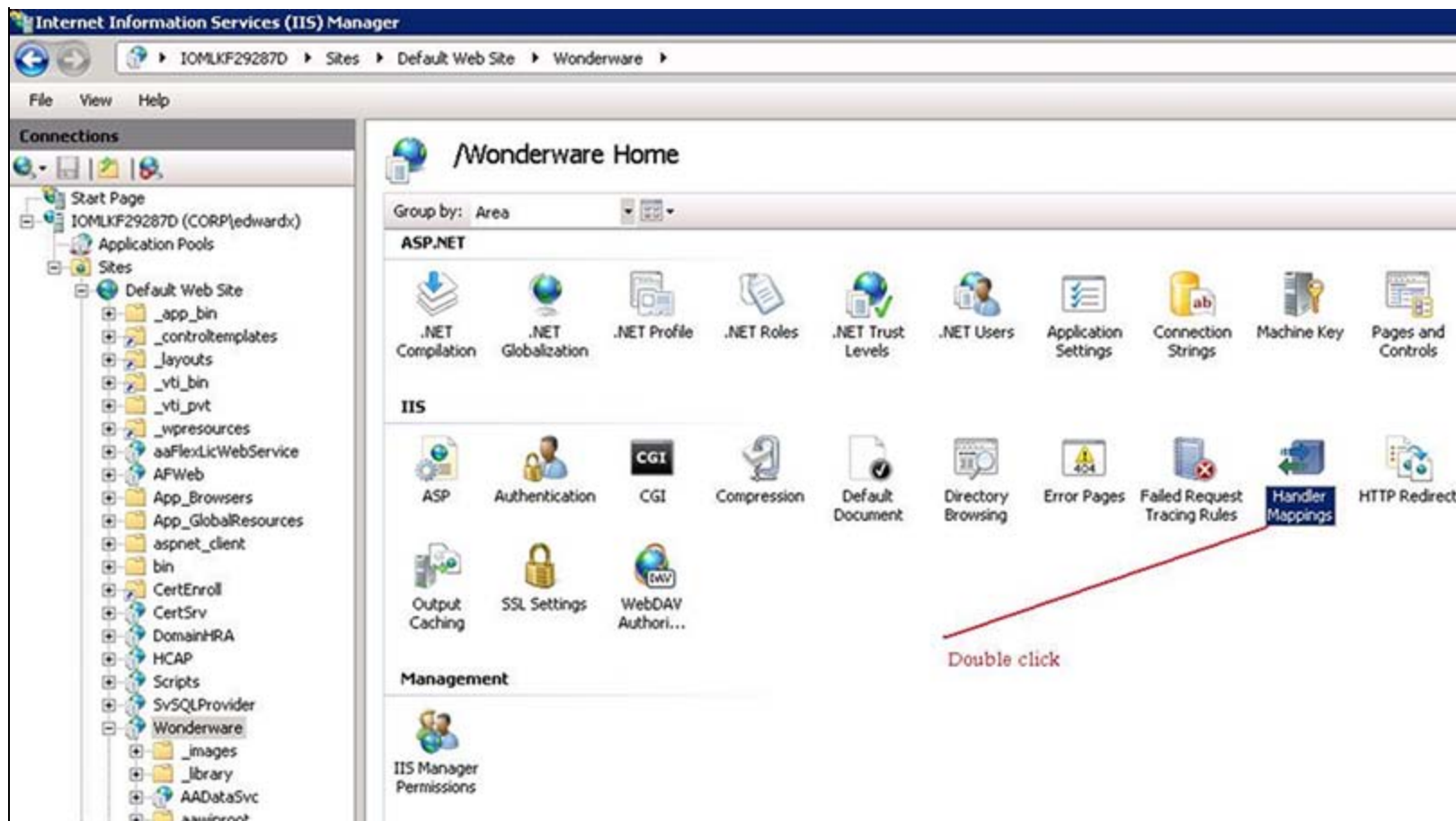


FIGURE 10: DOUBLE-CLICK HANDLER MAPPINGS TO CHECK THE EXECUTION PERMISSION

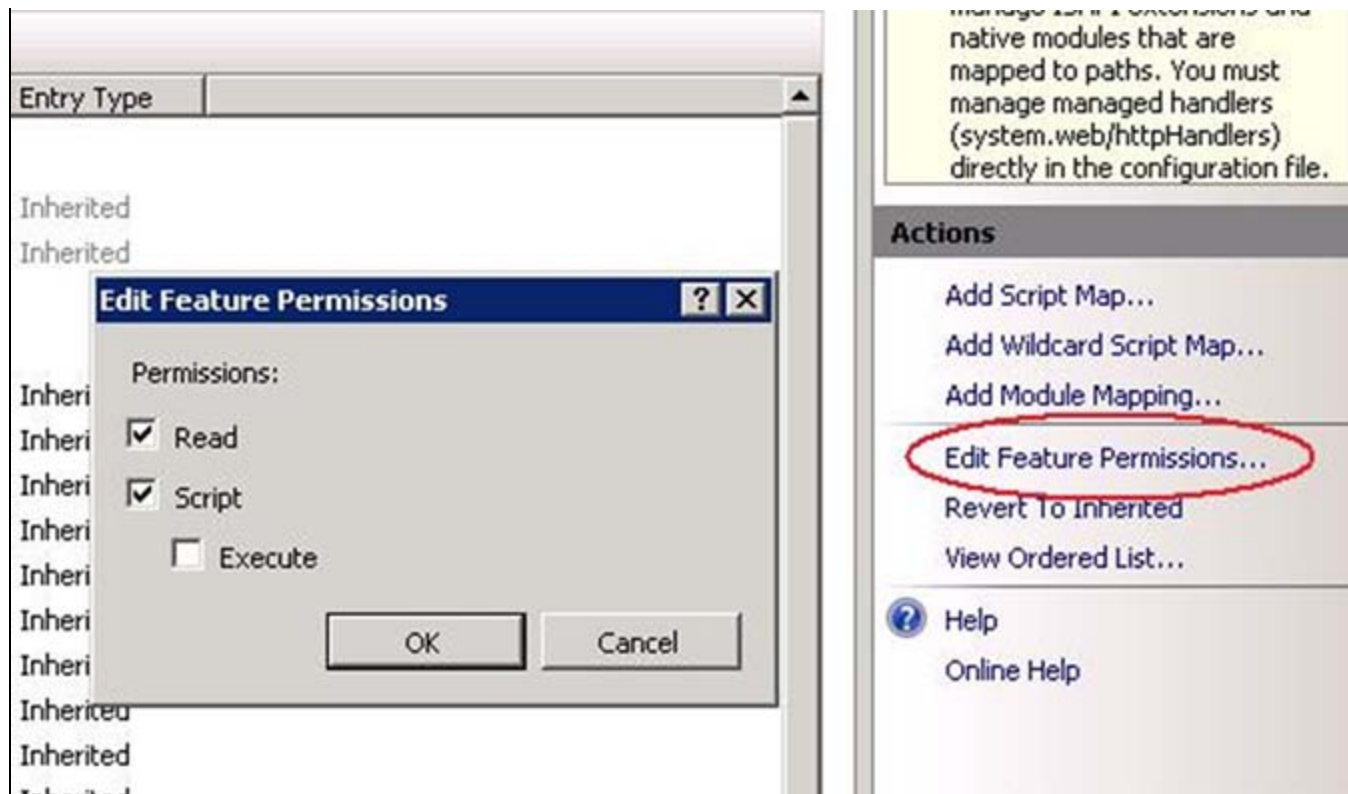


FIGURE 11: CLICK EDIT FEATURE PERMISSIONS AND MAKE SURE THE DIALOG IS SET CORRECTLY

The web.config file Contains Extra ISAPI Lines

This issue has been known to occur after Microsoft Updates have been applied to the server/portal.

If you are experiencing this issue, you will see the HTTP Error **500.19 - Internal Server Error** accompanied by the following error in the SMC Logger:

```
Cannot add duplicate collection entry of type add with unique key attribute name set to xml-ISAPI-2.0 Config File
c:\inetpub\wwwroot\Wonderware\web.config
```

1. To resolve this issue, edit the **web.config** file (using Notepad) located at **C:\inetpub\wwwroot\Wonderware** and delete the two ISAPI lines you see under `<handlers accessPolicy="Read, Script">`.
2. Save your changes and close the editor.

References

- [Tech Note 790 Troubleshooting Wonderware Information Server \(WIS\) Part Two: Factory Alarms](#)
- [Tech Note 794 Troubleshooting Wonderware Information Server \(WIS\) Part Three: Workarounds for Factory Alarms Issues in Windows Server 2008](#)

E. Xu and A. Rantos

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