

Using Python Scripts with IIS

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SUMMARY

Python is an interpreted scripting language similar in concept to Microsoft Visual Basic Script (VBScript), Microsoft JScript, Perl, or other scripting languages. While Internet Information Server (IIS) uses the Windows Scripting Host for its VBScript and JScript needs, IIS can use other script interpreters for Active Server Pages (ASP) as well as simple Common Gateway Interface (CGI) scripts. This article describes how to use Python as your scripting language of choice for both CGI and ASP.

MORE INFORMATION

You can choose any Python interpreter as the script engine for processing Python scripts. The example in this article uses ActiveState's ActivePython 2.0.

The following steps show how to set up the installed Python interpreter as a script engine for use with IIS and ASP.

1. Make sure that the Web site containing the Python scripts has an application set up. To do this, perform the following steps:
 - a. In the Internet Service Manager (ISM), right-click the directory that is the application starting point, and then click **Properties**.
 - b. Click the **Home Directory**, **Virtual Directory**, or **Directory** tab.
 - c. Under **Application Settings**, verify that the **Name** text box is active, and that it contains a name.
 - d. If the dialog box is inactive, click **Create** to create an application, and then give the application a name (the default name is "Default Application").
 - e. Under **Permissions**, verify that **Execute (including script)** is selected.

For more information about setting up applications, see "Configuring Applications" in IIS Help.

2. Verify that application mapping for .py files is set up. To do this, perform the following steps:
 - a. In the ISM, under **Internet Information Server**, right-click the computer name, and then click **Properties**.
 - b. From the **Master Properties** drop-down list, click **WWW Service** and then click **Edit**.
 - c. Click the **Home Directory** tab, and then click **Configuration**.
 - d. To add the application mapping, click **Add**, and then create a new mapping by using the following information (substituting the correct path on your computer):
 - Executable: "C:\Python20\python.exe %s %s" (The two "%s" after the executable are required for console-based script interpreters but would not be required for an Internet Server API [ISAPI]-based script interpreter).
 - Extension: .py
 - Script engine: selected.
 - Check that File Exists: selected (for security) Click **OK**.
3. Verify that the file and directory permissions are set correctly in the computer's access control list (ACL). For anonymous access, the IUSR_**[computername]** and IWAM_**[computername]** user accounts must have at least "read" permission (RX). When using other types of password authentication, the permissions required may vary.

The following Python script can be used to test for the proper installation and execution of Python-based CGI scripts with IIS.

Create a file in a text editor such as Microsoft Notepad, and include the following lines of code. Save the file in the scripts folder as **Test.py**.

```
print
print 'Status: 200 OK'
print 'Content-type: text/html'
print

print '<HTML><HEAD><TITLE>Python Sample CGI</TITLE></HEAD>'
print '<BODY>'
print '<H1>This is a header</H1>'
```

```
print '<p>' #this is a comment
print 'See this is just like most other HTML'
print '<br>'
print '</BODY>'
```

Browse "Test.py" on the Web site:

http://<computer_name>/scripts/test.py

Alternatively, you can use the Python interpreter as your script interpreter in your ASP pages. After you have the Python scripting engine registered, create a file by using Notepad and include the following lines of code. Save the file in the scripts folder as **Python.asp**.

```
<%@LANGUAGE=Python%>
<HTML>
<head></head>
<body>
<h1>Python Test</h1>

<%
#do some python stuff here

Response.Write('Python Test<br>')
Response.write('<h3>Smaller heading</hr>')
%>

</body>
</html>
```

Browse "Python.asp" on the Web site:

http://<computer_name>/scripts/python.asp

REFERENCES

For more information on Python see:

<http://www.python.org/> (<http://www.python.org/>)

For the ActiveState Python Interpreter see:

<http://www.activestate.com/Products/ActivePython/> (<http://www.activestate.com/Products/ActivePython/>)

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APPLIES TO

- Microsoft Internet Information Server 4.0
- Microsoft Internet Information Services 5.0

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