

## TechNote: 6-WordPress Install - IIS 5-1 Adding A Virtual Directory

## Introduction (v1.1):

TechNote 6 in the WordPress installation and setup series reviews setting up a virtual IIS 5.1 directory on XP Pro SP3.

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## **Prerequisites:**

TechNote: 0-WordPress Install Sequence On XP Pro plus Reference Links

Note: If you are reading this install series for XP Pro and IIS 5.1 for the first time, it is highly recommended that you at least scan through the prior "pre-req" documents.

## *My Development Environment:*

See TechNote: 0-WordPress Install Sequence On XP Pro plus Reference Links

## Special Notes:

**Trademark Note**: the inclusion of screenshots, in this or other documents without a Trademark <sup>™</sup> symbol by my "FromTheRanks" Blog-site Title or Logo does not imply these are not Trademarked. They are. These are early in-development screenshots taken before the <sup>™</sup> was added.

Format Change: to accelerate the release of the WordPress TechNote series on www.fromtheranks.com, from TechNote 5a on I have changed the post content format. I have elected to provide basic introductory information only in the on-line post and the entire post (text and images) in the PDF version. Doing so allows me to publish (and update) the series far more quickly.

### Homework:

It is not a great idea to build your web site under the Default Web Site in IIS or directly under C:\inetpub\wwwroot. Aside from security issues ("everyone" knows the defaults) what happens if you wish to





build another website someday? Here's a comment from an article on MSDN, under ASP.NET Configuration, entitled "How To: Create And Configure Virtual Directories in IIS 5.0 and 6.0:

"It is also a convenient way to set up a site for local Web development work, because it does not require a unique Web site for each virtual directory."

### Setup Virtual Directory:

The solution is to build a Virtual Directory that will act like a wholly distinct web-site.

Start  $\rightarrow$  Settings  $\rightarrow$  Control Panel  $\rightarrow$  Administrative Tools

Find and double-click on Internet Information Services

Expand your local computer name:



Select / highlight this and right-click on "Default Web site"  $\rightarrow$  New  $\rightarrow$  virtual directory

This will start up a Wizard, as follows:







Virtual Directory Creation Wizard 🛛 🛛 🔀		
	Welcome to the Virtual Directory Creation Wizard	
	This wizard will help you create a new Virtual Directory on this Web site.	
	Click Next to continue.	
	< <u>B</u> ack <u>Next</u> > Cancel	

Click on "Next"

My recommendation is to enter the name of your website. In my case the web-site will be <u>www.fromtheranks.com</u> so I entered, "fromtheranks":

Virtual Directory Creation Wizard	
Virtual Directory Alias You must give the virtual directory a short na	me, or alias, for quick reference.
Type the alias you want to use to gain acces same naming conventions that you would for <u>A</u> lias: fromtheranks	es to this Web virtual directory. Use the naming a directory.
C	< <u>B</u> ack <u>N</u> ext > Cancel



Click on "Next" and enter, or browse for the location where you wish to put the objects for THIS website. It can be anywhere on your system but I decided to put my root folder on my E: drive.

Note: Whatever you name it, wherever you put it, do not have spaces in the folder names (such as ... \Program Files\.. This has been known to create problems.

Virtual Directory Creation Wizard	
Web Site Content Directory Where is the content you want to publish on the Web site?	
Enter the path to the directory that contains the content. Directory:	
E:\wp	Browse
< <u>B</u> ack Next >	Cancel

To do this I selected the "Browse" button and browsed to E:\wp - if I hadn't have added the folder already I could have done so within the browse window.

Click "OK" to go back to the Virtual Directory Creation Wizard and click "Next". I suggest setting Access Permissions as follows:





Virtual Directory Creation Wizard
Access Permissions What access permissions do you want to set for this virtual directory?
Allow the following:
✓ <u>R</u> ead
Run scripts (such as ASP)
Execute (such as ISAPI applications or CGI)
☐ <u>W</u> rite
Browse
Click Next to complete the wizard.
< <u>B</u> ack <u>N</u> ext > Cancel

[D Potter suggests checking Execute – "WordPress – Installing WordPress on Windows ... Part 1" ... I have not yet found this to be necessary.]

Click "Next", then click "Finish".

I don't know if this is absolutely required but, to be on the safe side, I would recommend doing a "stop" (run  $\rightarrow$  net stop iisadmin) and then "start" (run  $\rightarrow$  net start w3svc) OR rebooting your computer, to make sure everything is set correctly.

Open up Internet Information Services and check the "Default SMTP Virtual Server" and "start" it, if it isn't, by right-clicking on it and selecting "start":

🝓 Internet Information Services				X
<u> Eile Action View Help</u>				
	▶ ■ II			
Conternet Information Services	Computer	Local	Version	Stat
ilocal compute (local compute) ⊕ ilocal web Sites ⊕ ilocation in the sites (location in the site) (location in	WORKSTATION1 (local computer)	Yes	IIS V5.1	
<	<			>

To confirm your settings, in the IIS Manager select your new virtual directory:





🝓 Internet Information Services	
Eile Action View Help	
🝓 Internet Information Services 🛛 Nar	ne Path
Image: Second	tr-eng tr-it
E · I Ftr-it ✓	

Note: we'll cover the reason behind the sub-folders (ftr-it and ftr-eng) in the WordPress install documents.

Right-click on this and select Properties. Virtual Directories tab should look something like this:

fromtheranks Properties		? 🛛			
HTTP Headers Virtual Directory	Custom Errors	ASP.NET			
When connecting to this re	Virtual Directory     Documents     Directory Security       When connecting to this resource, the content should come from: <ul> <li>A directory located on this computer</li> <li>A share located on another computer</li> </ul>				
A redirection to a URL      Logal Path: E:\wp     Browse      Script source access     ✓ Log visits      Age ad     Vite      Directory browsing					
Application Settings Application name: fr Starting point: <[ Execute Permissions: 9	omtheranks Default\fromtheranks icripts only	Configuration			
Application Protection:	1edium (Pooled) OK Cancel	Unload			



Note 1: Make sure Execute Permissions is set to Scripts Only - if you clicked on "Access Permissions" page in the wizard, it would have set it to "Scripts and Executables".

Note 2: click on the "Help" button for additional info on these settings. Do note that later on you can "tweak" the settings configured using the Wizard.

If you click on the "Configuration" button you should see something like this:

pplication Co	nfiguration		2
Mappings Opti	ons Debugging		
Cache ISAF	Pl applications		
- Application k			
Application	appings		
Exten	Executable Path	Verbs 🔼	
.htw	C:\WINDOWS\system32\webhits.dll	GET,HEA.	
.ida	C:\WINDOWS\system32\idq.dll	GET,HEA.	
.idc	C:\WINDOWS\system32\inetsrv\http	OPTIONS	
.idq	C:\WINDOWS\system32\idq.dll	GET,HEA.	
licx	C:\WINDOWS\Microsoft.NET\Frame	GET,HEA.	
.php	E:\PHP\php5isapi.dll	All	
.rem	C:\WINDOWS\Microsoft.NET\Frame	GET,HEA.	
.resources	C:\WINDOWS\Microsoft.NET\Frame	GET,HEA.	
.resx	C:\WINDOWS\Microsoft.NET\Frame	GET,HEA.	
.rules	C:\WINDOWS\Microsoft.NET\Frame	GET,HEA.	
.shtm	C:\WINDOWS\system32\inetsrv\ssin	GET,POS' 🥪	
<		CET DOC	
Add	<u>E</u> dit <u>R</u> emove		
			J
	OK Cancel Applu	Help	

Note: Verify that the "Verbs" column is set to "All".

If you click "OK", go back and then click on the Documents tab you should see something like this:





fromtheranks Properties		? 🛛
HTTP Headers	Custom Errors	ASP.NET
Virtual Directory	Documents	Directory Security
Enable Default Do <u>c</u> ume	nt	
t Index.php		Add
Default.asp		
Default.aspx		<u>R</u> emove
Enable D <u>o</u> cument Foote	۶۲ 	<u>B</u> rowse
	OK Cancel	Apply Help

About the only thing you won't see here is the "ISAPI Filter" tab. That is because it is set for *all* websites on your local computer. See: TechNote: 5a-WordPress Install - PHP 5-2-9-2 Setup.

Stop the IIS Admin service using: Run  $\rightarrow$  net stop iisadmin

Start the IIS Admin service using: Run  $\rightarrow$  net start w3svc

Open up Internet Information Services (aka IIS Admin), go to your new Virtual Directory and ensure all of the settings are correct.

### **Testing You Setup:**

To make sure you have configured everything properly, test it before moving on (note: see Debug notes at the end of the testing section).

#### Test #1:

Move, or copy, one of your previous ".php" test scripts previously saved under c:\inetpub\wwwroot (such as "test.php" as covered in an earlier doc) into your *new* root folder. In my case it would be "E:\wp".

Note: the virtual directory "alias" you created above is strictly for access via IE or Firefox, etc. Explorer, knows nothing about this alias so when copying you must use the actual folder names.

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Bring up IE and enter the new virtual directory and the test.php script. I entered mine like this: http://localhost/fromtheranks/test.php, The results looked like this:

🖉 phpinfo() - Wind	lows Internet Explorer
💽 🗸 🖉 http	p://localhost/fromtheranks/test.php 💌 😽 🗙 Live Search
	Y BLOCKER - Search Web -
🔶 🍄 🌈 phpinfo	0 👘 🔹 🔂 🔹 🖶 🔁 Bage 🖛 🌍 Tools 🗸 🎽
PHP Version	5.2.9-2
System	Windows NT 5.1 build 2600
Build Date	Apr 9 2009 08:22:37
Configure Command	cscript /nologo configure.js "enable-snapshot-build" "enable-debug-pack" "with- snapshot-template=d:\php-sdk\snap_5_2\vc6\x86\template" "with-php-build=d:\php- sdk\snap_5_2\vc6\x86\php_build" "with-pdo-oci=D:\php-sdk\oracle\instantclient10 \sdk,shared" "with-oci8=D:\php-sdk\oracle\instantclient10\sdk,shared"
Server API	ISAPI
Virtual Directory Support	enabled
Configuration File (php.ini) Path	C:\WINDOWS
Loaded Configuration File	E:\PHP\php.ini
<	
	Second intranet 🔍 100% 👻

#### Test #2:

Move, or copy, one of your previous ".php" test scripts previously saved under c:\inetpub\wwwroot (such as "test.php" as covered in an earlier doc) into your new root sub-folder (if you have one). In my case it would be "E:\wp\ftr-it".

Bring up IE and enter the new virtual directory, sub-directory and the test.php script. I entered mine like this: http://localhost/fromtheranks/ftr-it/test.php. The results looked like this:



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🖉 phpinfo() - Wind	lows Internet Explorer	×
🔆 🔁 🗸 🖉 http	p://localhost/fromtheranks/ftr-it/test. 💙 🗲 🗙 Live Search 🔎	•
	Search Web 🔻	
🚖 🕸 🌈 phpinfo	()	»
PHP Version	n 5.2.9-2	
System	Windows NT 5.1 build 2600	
Build Date	Apr 9 2009 08:22:37	
Configure Command	cscript /nologo configure.js "enable-snapshot-build" "enable-debug-pack" "with- snapshot-template=d:\php-sdk\snap_5_2\vc6\x86\template" "with-php-build=d:\php- sdk\snap_5_2\vc6\x86\php_build" "with-pdo-oci=D:\php-sdk\oracle\instantclient10 \sdk,shared" "with-oci8=D:\php-sdk\oracle\instantclient10\sdk,shared"	
Server API	ISAPI	
Virtual Directory Support	enabled	
Configuration File (php.ini) Path	C:\WINDOWS	
Loaded Configuration File	E:\PHP\php.ini	~
<		
Done	Socal intranet 🔍 100% 🔻	

Bring up IE and enter the new virtual directory, the second sub-directory (if you have one) and the test.php script. I entered mine like this: <u>http://localhost/fromtheranks/ftr-eng/test.php</u>. As there is no test.php in this sub-directory the results are predictable:





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🖉 The page cannot be found - Windows Internet Explorer		
🚱 🕤 👻 🛃 http://localhost/fromtheranks/ftr-eng/te 🔽 🐓 🗙 Live Search	<b>P</b> -	
ZONEALARM® SPY BLOCKER - Search Web -		
🔶 🏟 🌈 The page cannot be found 🍡 🖓 🔹 🔝 🔹 🎰 🔹 🔂 Page 🔹 🍏 Too	ls <b>▼</b> ≫	
The page cannot be found	<	
The page you are looking for might have been removed, had its name changed, or is temporarily unavailable.		
<ul> <li>Please try the following:</li> <li>If you typed the page address in the Address bar, make sure that it is spelled correctly.</li> <li>Open the <u>localhost</u> home page, and then look for links to the information you want.</li> <li>Click the <u>Back</u> button to try another link.</li> </ul>		
HTTP 404 - File not found Internet Information Services Technical Information (for support personnel)	>	
Done Second Seco	•	

We'll come back to this test after we install WordPress in our new "E:\wp" folders.

## **Debug Notes:**

Note: after setting all of this up, <u>http://localhost/</u> no longer works. I'm not exactly sure why, but I suspect it has to do with default IIS settings being tromped on:





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<i>(C</i> HTTP 4	03 Forbidden - Windows Internet Explorer
00.	r 🙋 http://localhost/ 💽 😽 🗙 Live Search 🔎 🔹
ZONEA	LARM® SPY BLOCKER - Search Web -
😭 🏟	(€ HTTP 403 Forbidden (age ▼ (2) Tools ▼
1	The website declined to show this webpage
	<ul><li>Most likely causes:</li><li>This website requires you to log in.</li></ul>
	What you can try:
	<ul> <li>Go back to the previous page.</li> </ul>
	More information
	This error (HTTP 403 Forbidden) means that Internet Explorer was able to connect to not have permission to view the webpage.
	For more information about HTTP errors, see Help.
<	
	😜 Internet 🔍 100% 🔻 🛒

Originally I made my Virtual Directory "E:\Wordpress". And, all of the above tests worked. However, after learning a bit more about how I wanted to set up my web-site, I decided to change the construction, as follows:

Created a new folder: "E:\wp"

Created two sub-folders under "E:\wp", entitled "E:\wp\ftr-it" and "E:\ftr-eng"

I then deleted my original Virtual Directory that pointed to "E:\Wordpress". It might have worked to just change the folder in the Home Directory tab, but I wanted to try it from scratch.

I then deleted my "E:\Wordpress" folder.

I rebuilt the Virtual Directory, pointed it at "E:\wp" using all of the settings as described above.

Trivia: part of the reason behind the change was I didn't want to constantly type "WordPress".





But:

When I went to test the new setup, it didn't work. IE7 / IIS kept coming up with a "404 error", which is "file or folder not found"; it couldn't find "test.php" though it was in the new folder.

What I did to "fix" it:

Went through the Registry to see if there was any trace of the old Virtual Directory at "E:\wordpress". No trace. See snapshots below.

Went through the IIS logs located in "C:\WINDOWS\system32\Logfiles\W3SVC1". These didn't tell me anything I didn't already know.

Checked all my settings. They all looked correct.

Went into the Home Directory tab and did a browse to my new folder (E:\wp") and then saved it, thinking this might "re-set" the folder.

Poked around IIS/MMC, by right-clicking on my new Virtual Directory, clicking on "Explore" then "Browse" then back to "Explore".

In the midst of this step, IIS/MMC "blew up" and sent an error off to MS (no, I didn't think to record it) and then it recommended restarting IIS.

I restarted IIS using "net start w3svc" and ... the new Virtual Directory worked.

I then re-ran all of the above tests and they passed with flying colors.

Though there are clues above no doubt, I have no actual idea how IIS/MMC "fixed" itself, but I do have queries out on the forums to see if I can find out. I'll update as I discover more behind this issue (if I ever do).

Screen-shots from the debugging session:





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## Next Step:

The next step will be to do the initial installation of MySQL Database and User needed to install WordPress. See: TechNote: 7-WordPress Install - MySQL Database And User Setup.

