Installing AWStats on IIS 6.0 (Including IIS 5.1) Step-by-Step - Revision 3.0

AWStats is such a great statistical tracking program to use, but there seems to be a lack of easy-to-follow documentation available for installing AWStats on IIS. This document covers the basic setup process and will certainly get you started tracking statistics for your websites. If anyone is having troubles getting AWStats to work with IIS 6.0 (or IIS 5.1) after following this documentation please write to me at articles 'at' ihsen.com and I will do my best to respond.

This Article at a Glance

Prerequisites

- IIS 6.0 (Including IIS 5.1*)
- AWStats
- ActivePerl

*I managed to use this document successfully to install AWStats on IIS 5.1 as well. Just remember that IIS 5.1 does not have a Web Service Extensions manager (as mentioned in Step 4).

Brief Outline of Processes

- Install ActivePerl and AWStats (Steps 1 – 3)
- Configure IIS to handle the Perl scripts (Steps 4 – 5)
- Create a new virtual website specifically for AWStats to display statistics (Steps 6 - 8)
- Configure the IIS logs for your website (Step 9)
- Configure AWStats to monitor your website and display the statistics

The best approach is to use this document to get AWStats up and running to collect statistics for one specific virtual website. Once we have at least one working model, we can easily configure AWStats to work for multiple virtual websites. You will discover that Steps **1** – **7** are specific to the web server and only need to be done once, whereas Steps **8** – **11** will need to be repeated for each virtual website that you wish to monitor. If you see the * symbol, treat this step as critical to make sure you get it absolutely correct!

Key References

Reference	Explanation
MyWebsite	The public website that you intend to collect statistics for
AWStats Website	The website AWStats uses to display statistics for all other websites

Step 1 – Downloading the Prerequisite Programs

Download the awstats.exe file from http://awstats.sourceforge.net/
Download the ActivePerl MSI file from http://www.activestate.com/

Step 2 – Installing and Testing ActivePerl

Install ActivePerl on your web server. Follow the prompts but when asked, install the program to the C:\Perl directory. (You may need to create this directory.)

After installing Perl, ensure that it is working by opening a text file using notepad and adding the the following text:

```
#!/usr/bin/perl
print "Hello World.\n";
```

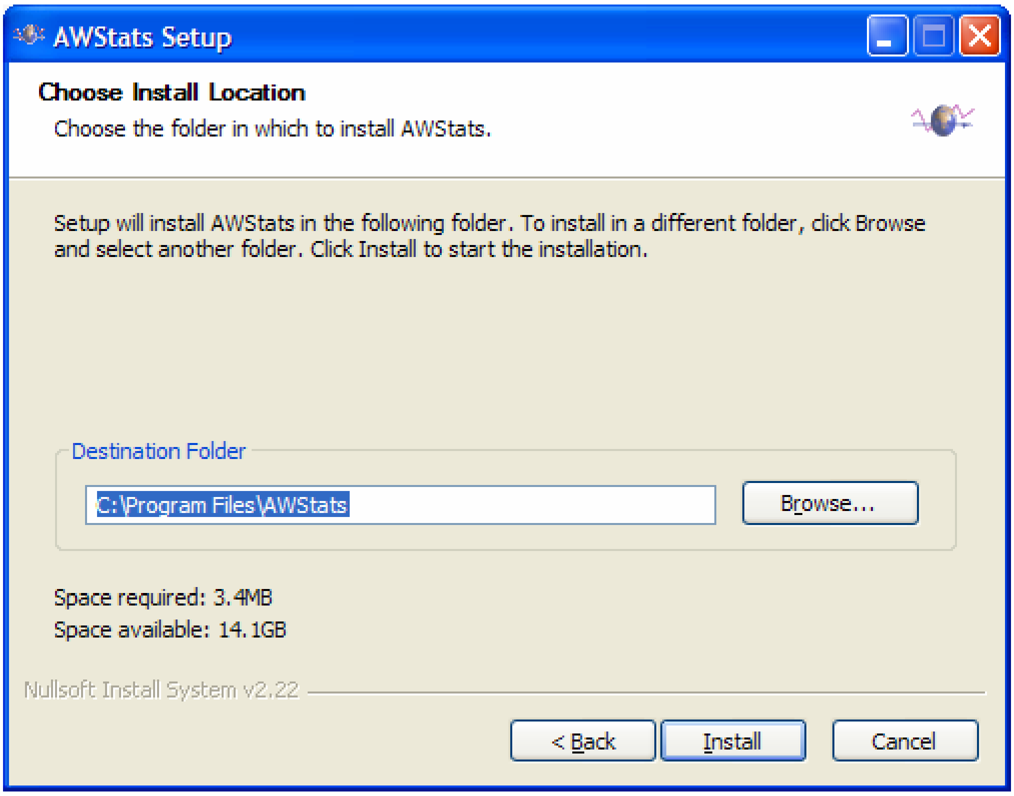
Save this to the “C:\Perl” directory with the filename of “hello.pl”. Now open a command prompt (Start > Run > cmd) and type the following command:

```
C:\Perl\hello.pl
```

If the command runs and produces “Hello World.”, then it looks like Perl is working correctly.

Step 3 – Installing AWStats

Install AWStats and follow the prompts to accept the default settings. (This will install all files including the documents to the C:\Program Files\AWStats directory.)


AWStats Setup

Choose Install Location

Choose the folder in which to install AWStats.

Setup will install AWStats in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.

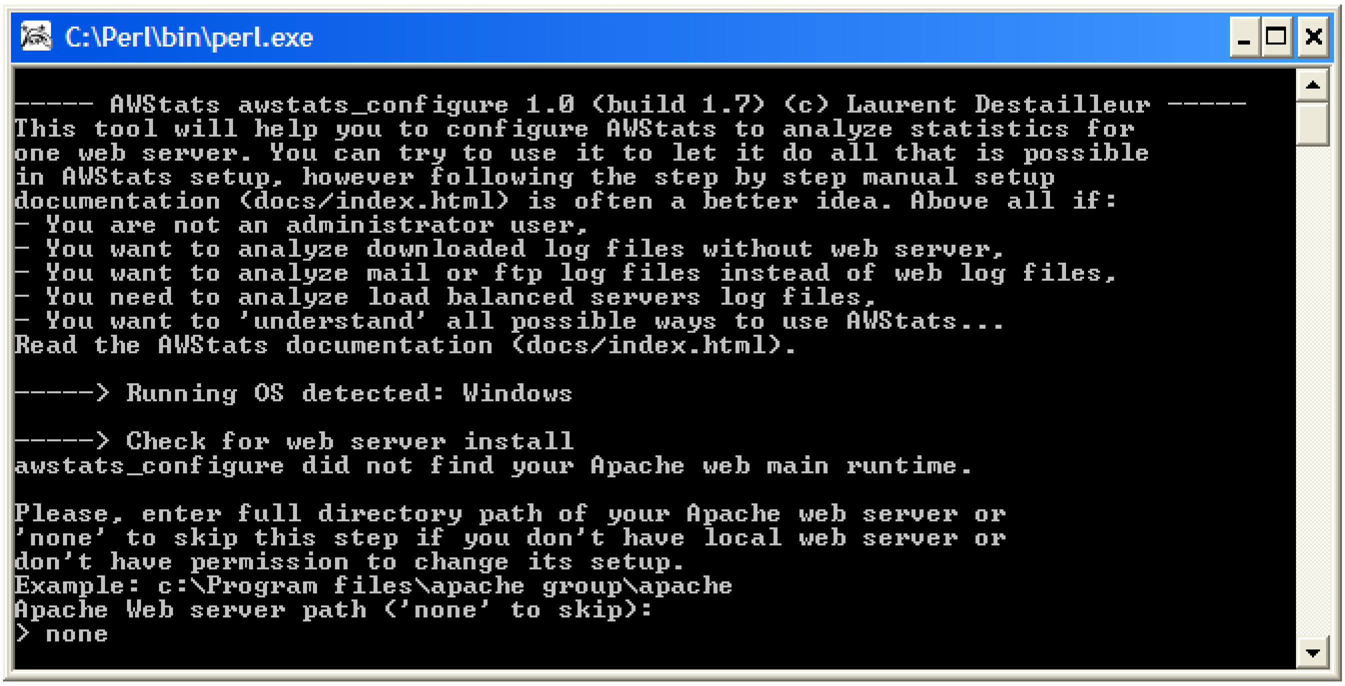
Destination Folder: C:\Program Files\AWStats

Space required: 3.4MB
Space available: 14.1GB

Nullsoft Install System v2.22

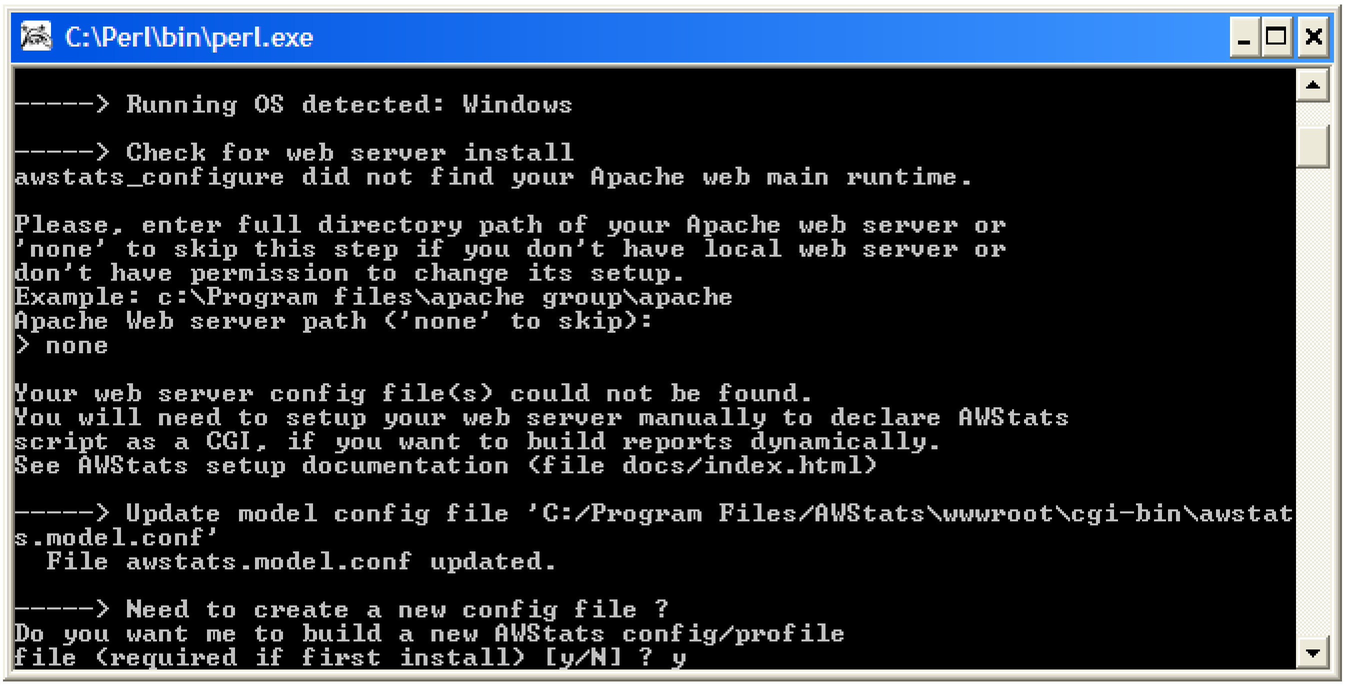
Step 3 – Continued…

You will notice that a Perl window will appear detecting your operating system and will then advise you that it was unable to detect your Apache web server. If this comes as a surprise you, then you may need to consider getting some extra help from here on in! When prompted for your web server path simply add “none” and continue on.



```
----- AWStats awstats_configure 1.0 (build 1.7) (c) Laurent Destailleur -----
This tool will help you to configure AWStats to analyze statistics for
one web server. You can try to use it to let it do all that is possible
in AWStats setup, however following the step by step manual setup
documentation (docs/index.html) is often a better idea. Above all if:
- You are not an administrator user,
- You want to analyze downloaded log files without web server,
- You want to analyze mail or ftp log files instead of web log files,
- You need to analyze load balanced servers log files,
- You want to 'understand' all possible ways to use AWStats...
Read the AWStats documentation (docs/index.html).

-----> Running OS detected: Windows

-----> Check for web server install
awstats_configure did not find your Apache web main runtime.

Please, enter full directory path of your Apache web server or
'none' to skip this step if you don't have local web server or
don't have permission to change its setup.
Example: c:\Program files\apache group\apache
Apache Web server path ('none' to skip):
> none
```

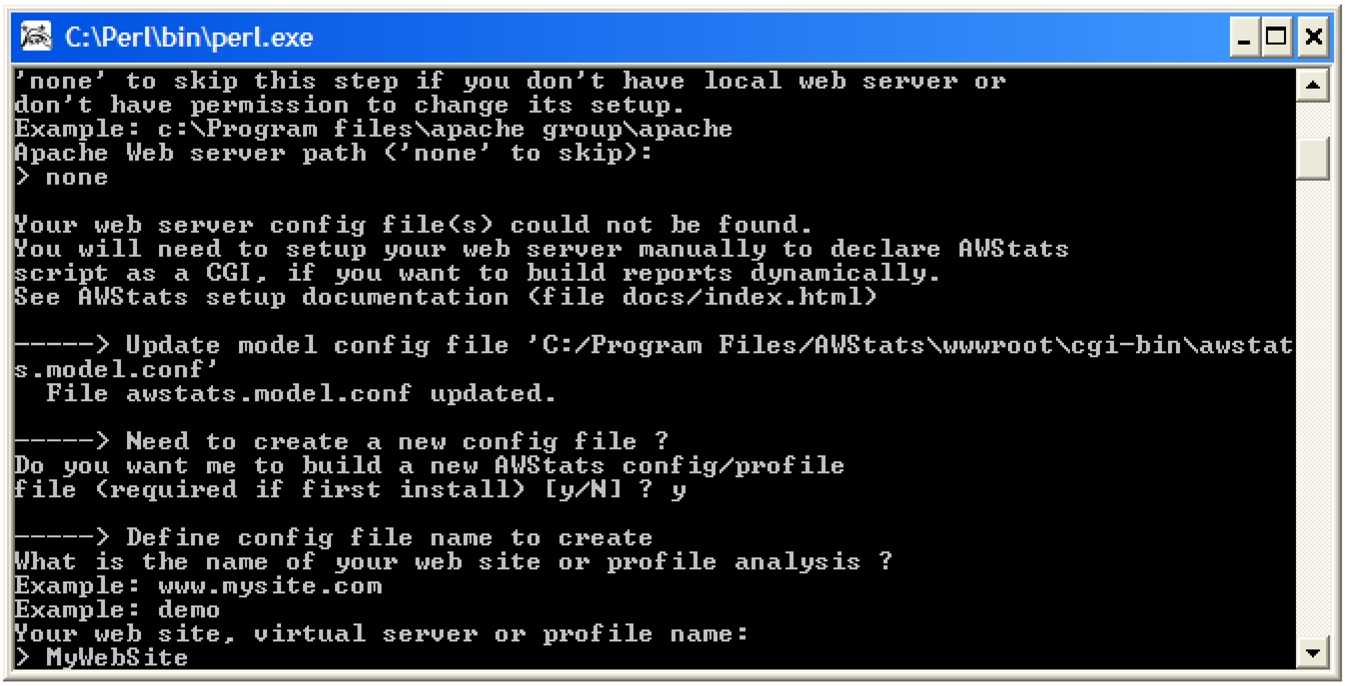
Next, agree to build a new AWStats Profile file.



```
-----> Running OS detected: Windows

-----> Check for web server install
awstats_configure did not find your Apache web main runtime.

Please, enter full directory path of your Apache web server or
'none' to skip this step if you don't have local web server or
don't have permission to change its setup.
Example: c:\Program files\apache group\apache
Apache Web server path ('none' to skip):
> none

Your web server config file(s) could not be found.
You will need to setup your web server manually to declare AWStats
script as a CGI, if you want to build reports dynamically.
See AWStats setup documentation (file docs/index.html)

-----> Update model config file 'C:/Program Files/AWStats\wwwroot\cgi-bin\awstat
s.model.conf'
  File awstats.model.conf updated.

-----> Need to create a new config file ?
Do you want me to build a new AWStats config/profile
file (required if first install) [y/N] ? y
```

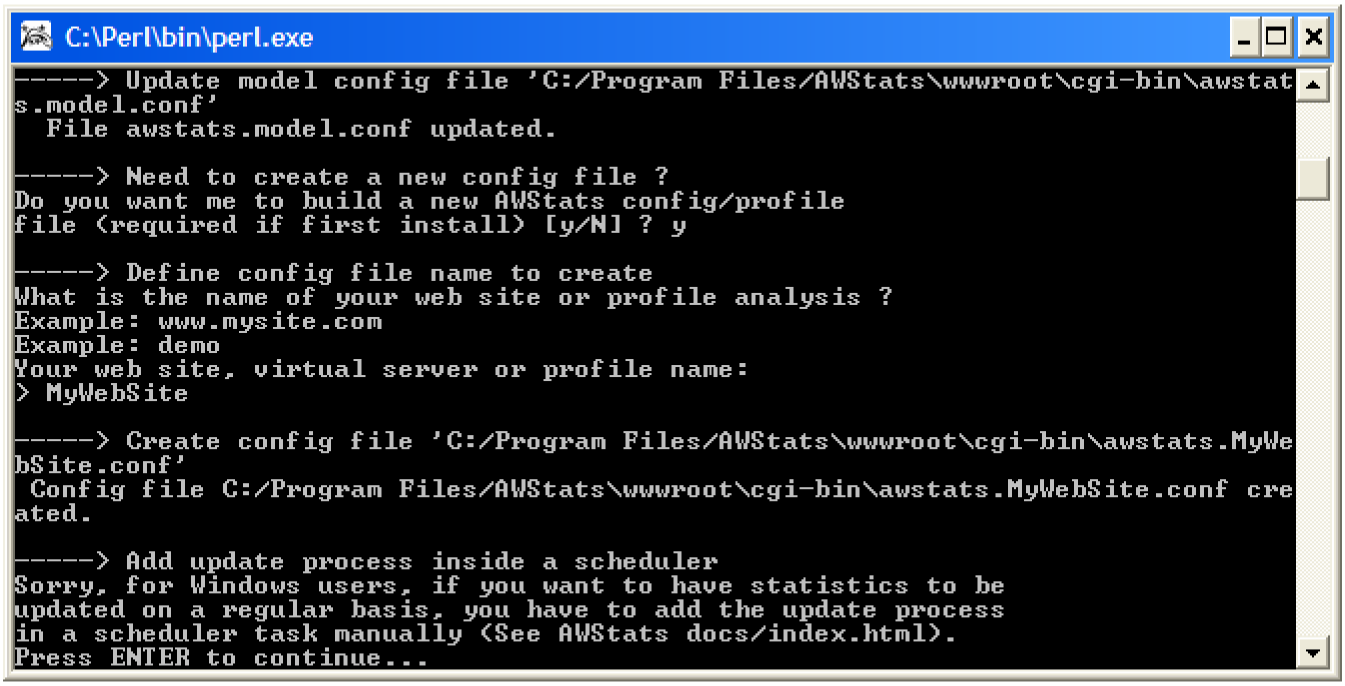
Step 3 – Continued…

Add a name for the web site that you intend to monitor. This name can be anything you want as long as it helps to identify the actual website that you wish to monitor. Don't worry if you have multiple websites running from the same web server we can easily add all these later. It is important to get this first Profile file right to get us started.



```
'none' to skip this step if you don't have local web server or
don't have permission to change its setup.
Example: c:\Program files\apache group\apache
Apache Web server path ('none' to skip):
> none

Your web server config file(s) could not be found.
You will need to setup your web server manually to declare AWStats
script as a CGI, if you want to build reports dynamically.
See AWStats setup documentation (file docs/index.html)

-----> Update model config file 'C:/Program Files/AWStats\wwwroot\cgi-bin\awstat
s.model.conf'
  File awstats.model.conf updated.

-----> Need to create a new config file ?
Do you want me to build a new AWStats config/profile
file (required if first install) [y/N] ? y

-----> Define config file name to create
What is the name of your web site or profile analysis ?
Example: www.mysite.com
Example: demo
Your web site, virtual server or profile name:
> MyWebSite
```

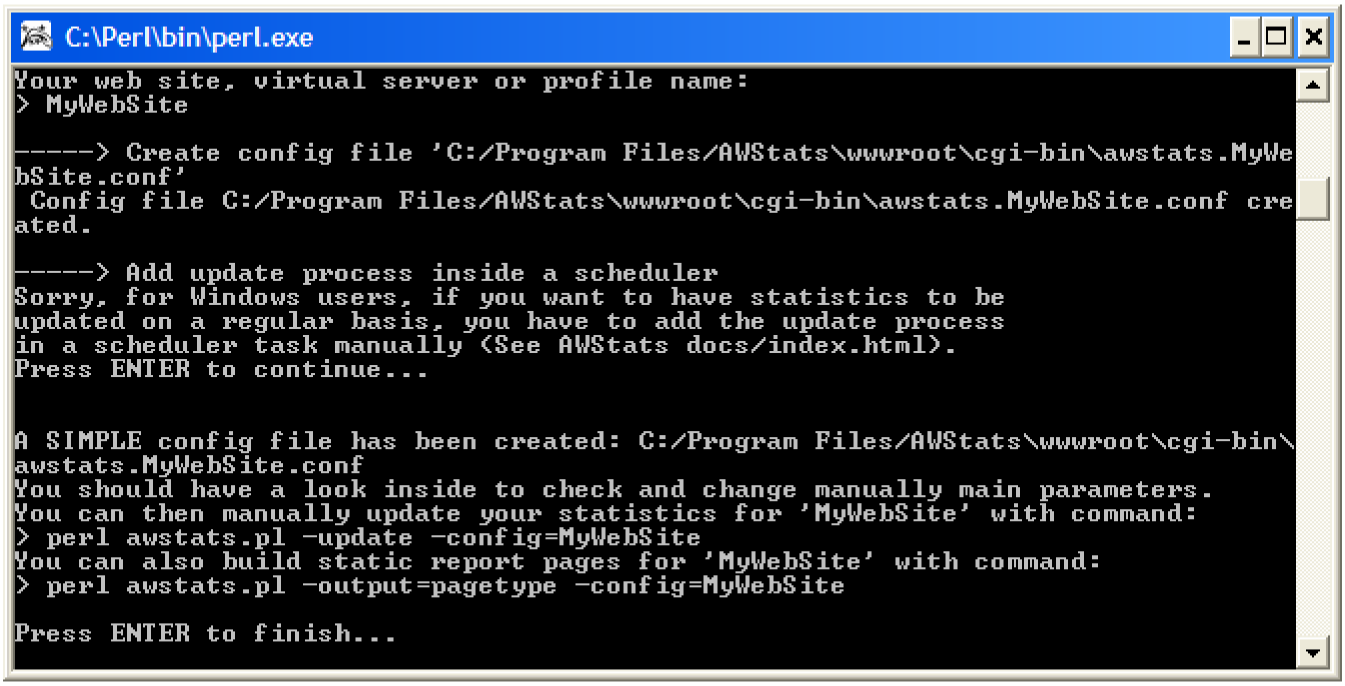
Next, hit Enter to continue when it advises you that Windows users will need to set up a scheduler task (more on this later).



```
-----> Update model config file 'C:/Program Files/AWStats\wwwroot\cgi-bin\awstat
s.model.conf'
  File awstats.model.conf updated.

-----> Need to create a new config file ?
Do you want me to build a new AWStats config/profile
file (required if first install) [y/N] ? y

-----> Define config file name to create
What is the name of your web site or profile analysis ?
Example: www.mysite.com
Example: demo
Your web site, virtual server or profile name:
> MyWebSite

-----> Create config file 'C:/Program Files/AWStats\wwwroot\cgi-bin\awstats.MyWe
bSite.conf'
 Config file C:/Program Files/AWStats\wwwroot\cgi-bin\awstats.MyWebSite.conf cre
ated.

-----> Add update process inside a scheduler
Sorry, for Windows users, if you want to have statistics to be
updated on a regular basis, you have to add the update process
in a scheduler task manually (See AWStats docs/index.html).
Press ENTER to continue...
```

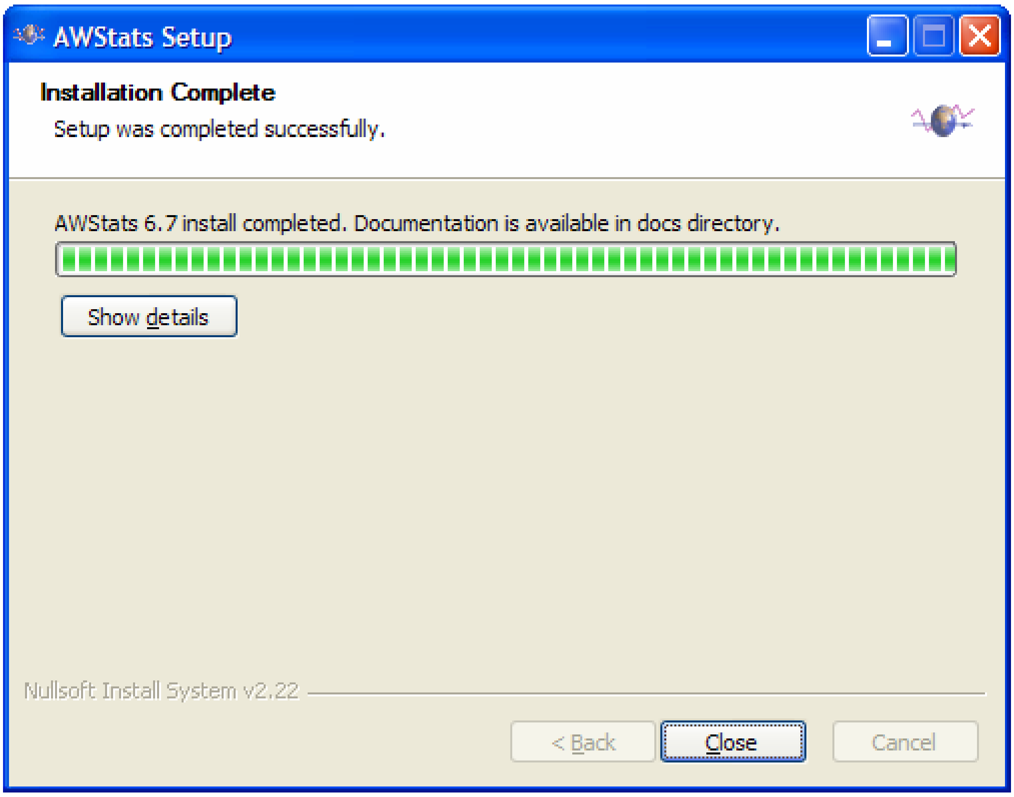
Step 3 – Continued…

Hit Enter to finish.



```
Your web site, virtual server or profile name:
> MyWebSite

-----> Create config file 'C:/Program Files/AWStats\wwwroot\cgi-bin\awstats.MyWe
bSite.conf'
 Config file C:/Program Files/AWStats\wwwroot\cgi-bin\awstats.MyWebSite.conf cre
ated.

-----> Add update process inside a scheduler
Sorry, for Windows users, if you want to have statistics to be
updated on a regular basis, you have to add the update process
in a scheduler task manually (See AWStats docs/index.html).
Press ENTER to continue...


A SIMPLE config file has been created: C:/Program Files/AWStats\wwwroot\cgi-bin\
awstats.MyWebSite.conf
You should have a look inside to check and change manually main parameters.
You can then manually update your statistics for 'MyWebSite' with command:
> perl awstats.pl -update -config=MyWebSite
You can also build static report pages for 'MyWebSite' with command:
> perl awstats.pl -output=pagetype -config=MyWebSite

Press ENTER to finish...
```

Finally, click Close to close the AWStats setup window.



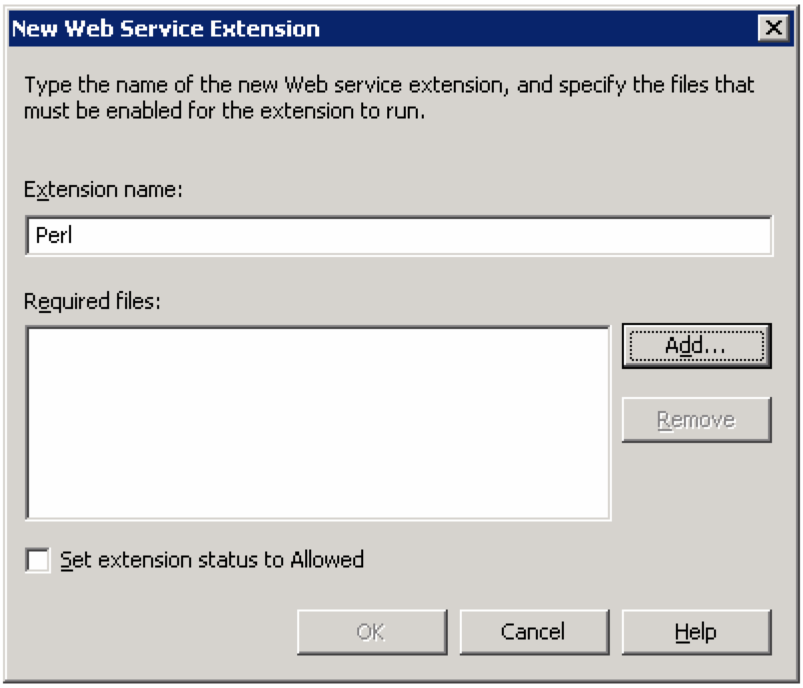
Installation Complete

Setup was completed successfully.

AWStats 6.7 install completed. Documentation is available in docs directory.

Step 4 – Setting up the Perl Extension in IIS

Now we are going to set up IIS with access rights. Open up your IIS Manager (Start > Run > inetmgr) and go to the Web Service Extensions folder. Right click on the “Web Service Extension” folder and choose “Add a new Web service extension…”



New Web Service Extension

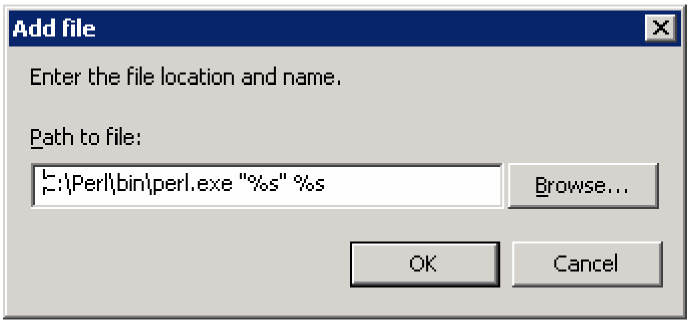
Type the name of the new Web service extension, and specify the files that must be enabled for the extension to run.

Extension name: Perl

Required files:

☐ Set extension status to Allowed

Add the title “Perl” and then click “Add…” to add a path to the Perl executable.



Add file

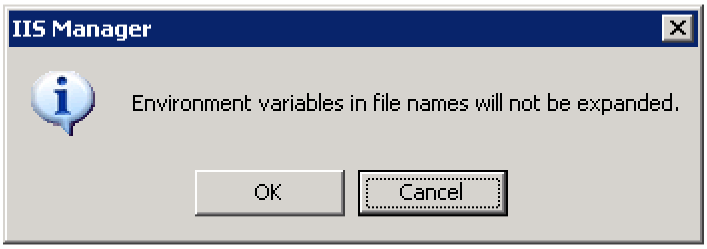
Enter the file location and name.

Path to file: C:\Perl\bin\perl.exe "%s" %s

Browse to the C:\Perl directory to pick up the Perl executable and add the following path (including the environment variable):

C:\Perl\bin\perl.exe “%s” %s

If you get the following message, remove the variable that is already in use (most likely the %s without the quotes).

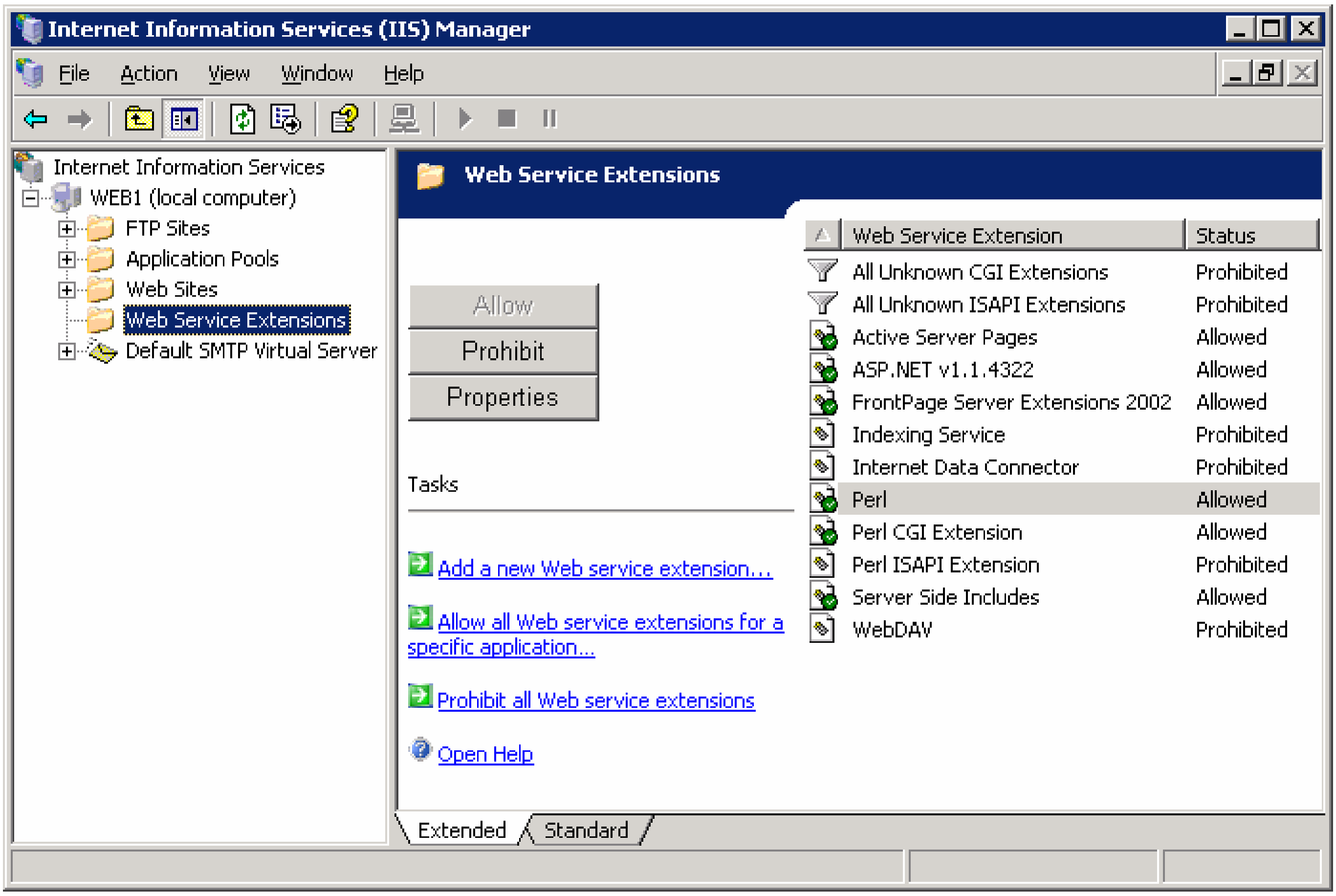


IIS Manager

Environment variables in file names will not be expanded.

Step 4 – Continued…

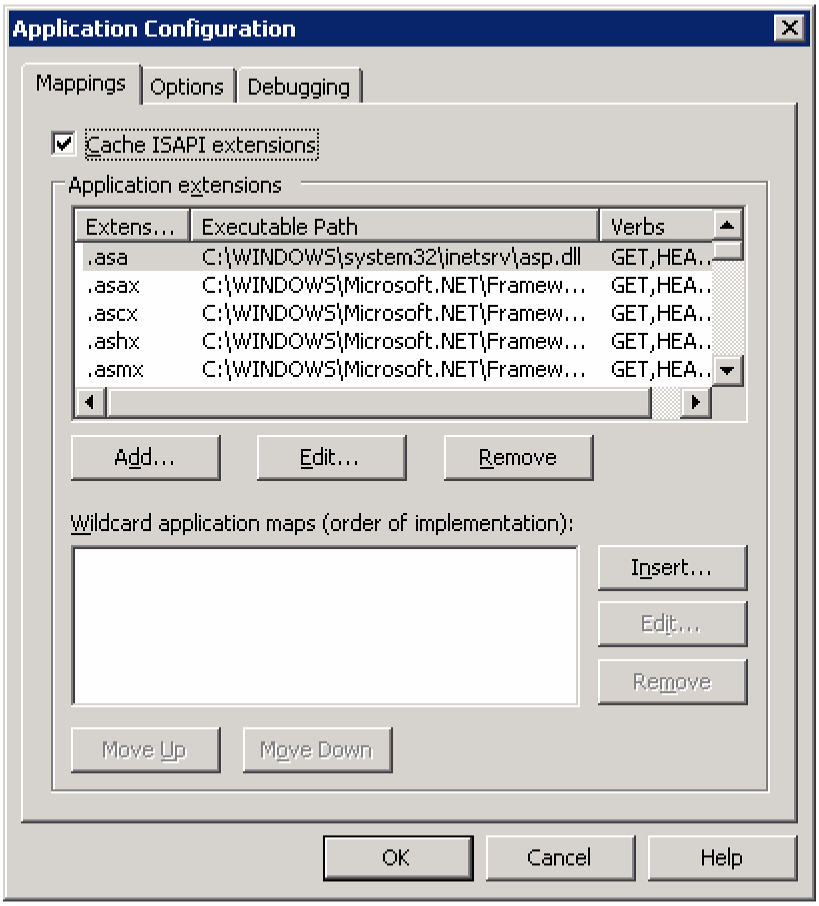
Finally, ensure that both the "Perl" and the "Perl CGI Extension" extensions have been set to "Allowed" as per the following window. This is important to allow the Perl scripts to run when updating the statistics dynamically.


Internet Information Services (IIS) Manager
File
Action
View
Window
Help
Internet Information Services
WEB1 (local computer)
FTP Sites
Application Pools
Web Sites
Web Service Extensions
Default SMTP Virtual Server
Web Service Extensions
Allow
Prohibit
Properties
Tasks
Add a new Web service extension…
Allow all Web service extensions for a specific application…
Prohibit all Web service extensions
Open Help
Extended
Standard

Web Service Extension	Status
All Unknown CGI Extensions	Prohibited
All Unknown ISAPI Extensions	Prohibited
Active Server Pages	Allowed
ASP.NET v1.1.4322	Allowed
FrontPage Server Extensions 2002	Allowed
Indexing Service	Prohibited
Internet Data Connector	Prohibited
Perl	Allowed
Perl CGI Extension	Allowed
Perl ISAPI Extension	Prohibited
Server Side Includes	Allowed
WebDAV	Prohibited

Step 5 – Setting up the Application Extension in IIS

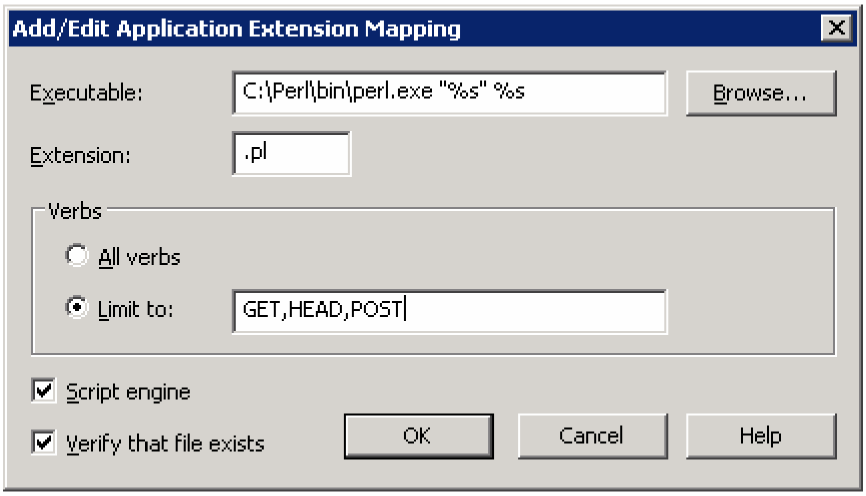
Go to the “Web Sites” folder in the IIS Manager and right click on any virtual website that you intend to collect statistics for. Select Properties and then select the “Home Directory” tab and then select “Configuration…” (in the “Applications Settings” section). The following window should appear:



☑ Cache ISAPI extensions

Extens...	Executable Path	Verbs
.asa	C:\WINDOWS\system32\inetsrv\asp.dll	GET,HEA...
.asax	C:\WINDOWS\Microsoft.NET\Framew...	GET,HEA...
.ascx	C:\WINDOWS\Microsoft.NET\Framew...	GET,HEA...
.ashx	C:\WINDOWS\Microsoft.NET\Framew...	GET,HEA...
.asmx	C:\WINDOWS\Microsoft.NET\Framew...	GET,HEA...

Check to see if a “.pl” extension is in the list. If not, then you need to add it by clicking on “Add…” and entering the details exactly as follows:



Executable: C:\Perl\bin\perl.exe "%s" %s

Extension: .pl

○ All verbs

● Limit to: GET,HEAD,POST

☑ Script engine

☑ Verify that file exists

Select OK to save and close this.

Note: The good news is, you only need to do Steps 5 & 6 once as this will be a global change in IIS.

Step 6 – Creating a Website for the AWStats

Now, we are going to create a new website specifically for AWStats to use for displaying the statistics for any of our virtual websites.

Create a folder under your web root folder entitled “AWStats” (or whatever you like to identify the location of your AWStats Website). In other words, if your web pages are stored under the standard “C:\Inetpub\wwwroot”, then create it under there. For all you others, you should know exactly what I mean.

Go to the “C:\Program Files\AWStats\wwwroot” directory and copy the following folders (and all the contents) out to sit under the new directory you have just created:

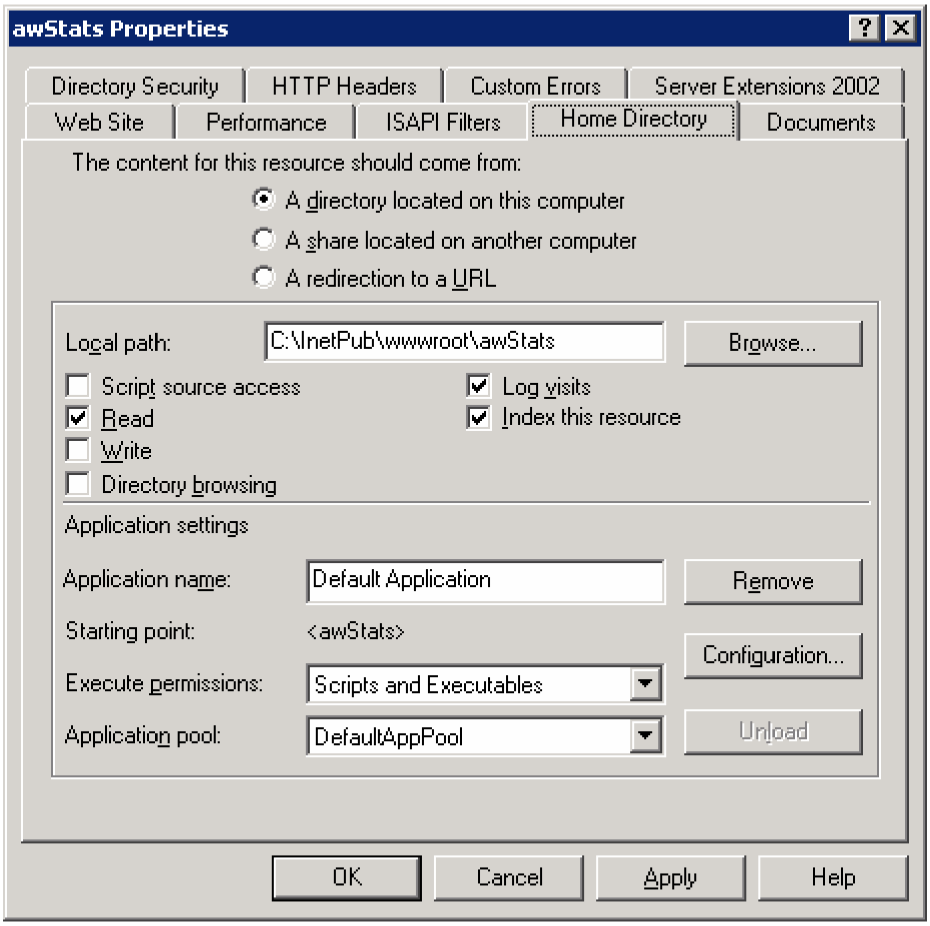
- cgi-bin
- classes
- css
- icon
- js

Please note that you can simply place these folders and files directly under the web root if you want to, but I intend to run the web statistics in a separate virtual website as I am attempting to be careful not to allow “Scripts and Executables” access to the root of my website.

Essentially, we will be using AWStats from this new location, so consequently the files under “C:\Program Files\AWStats\wwwroot” will become redundant. I would not remove those files because there are help files there for future reference (along with other Perl files for advanced users).

Open up your IIS Manager (Start > Run > inetmgr), and create a new website using this new “AWStats” folder that you have created under the web root. If you do as I have done, you can always create a subdomain (or domain) purely for gathering statistics for all of your websites, like “statistics.mydomain.com”. Or just use the IP address. Whichever is easier providing you can access the website!

Create your AWStats Website using the following settings (note that the “Execute permissions” are set to “Scripts and Executables” which will be required for the Perl scripting):



awStats Properties

The content for this resource should come from:

● A directory located on this computer
○ A share located on another computer
○ A redirection to a URL

Local path: C:\InetPub\wwwroot\awStats

□ Script source access
☑ Read
□ Write
□ Directory browsing
☑ Log visits
☑ Index this resource

Application settings

Application name: Default Application

Starting point: <awStats>

Execute permissions: Scripts and Executables

Application pool: DefaultAppPool

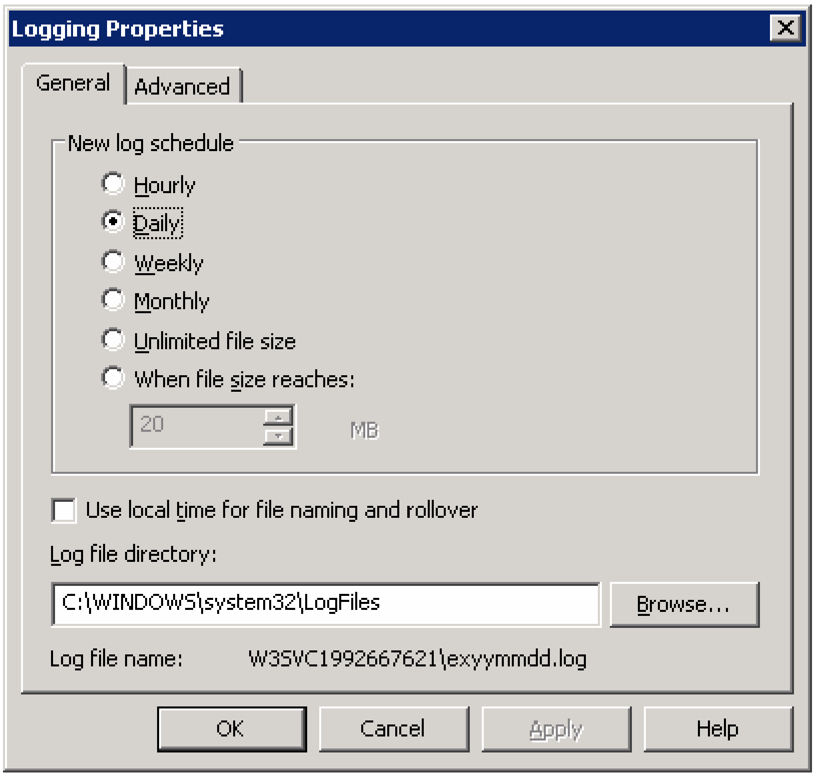
Step 7* – Setting up the AWStats Data Directory with Modify Rights

Open up Windows Explorer and go to the the virtual directory is that you are using for your new AWStats Website. Create a directory called “data”. Enable “Modify” access to be given to the standard IUSR_MyServer account. This is the directory that AWStats will store the data it creates from gathering the statistics. (Yes, even despite the fact that IIS stores all of the web logs already… It’s different!). Using the “Modify” rights is critical so that AWStats can update its own logs.

Our AWStats Website is now ready to start working, so now we need to feed it some statistics!

Step 8* – Configuring the Web Log File Location, Frequency and Data Collection for MyWebsite

Using the IIS Manager (Start > Run > inetmgr), open the Properties of MyWebsite and select the Web Site tab and then click on the “Enable logging” checkbox to enable it (if not already checked), select “WC3 Extended Log File Format” and then select the “Properties…” to open the following dialog box:



New log schedule

○ Hourly
● Daily
○ Weekly
○ Monthly
○ Unlimited file size
○ When file size reaches: 20 MB

☐ Use local time for file naming and rollover

Log file directory: C:\WINDOWS\system32\LogFiles

Log file name: W3SVC1992667621\exyymmdd.log

Here you can set the “Log file directory” to any directory you choose (or simply use the default). Go to the “Advanced” tab and ensure that ALL of the following are checked (please don’t get this part wrong!):

- Date (date)
- Time (time)
- Client IP Address (c-ip)
- Username (cs-username)
- Method (cs-method)
- URI Stem (cs-uri-stem)
- URI Query (cs-uri-query)
- Protocol Status (sc-status)
- Bytes Sent (sc-bytes)
- Protocol Version (cs-version)
- User Agent (cs(User-Agent))
- Referrer (cs(Referrer))

These will be the actual details we are collecting from each website hit. When this has been done, click OK to close and exit back to the IIS Manager.

Note: If required, check the “Use local time for file naming and rollover” option. Remember that IIS always records the statistics using GMT because it makes the assumption that the Internet is universal and therefore should use the Universal time zone. I believe that there is a plugin for AWStats that allows you to use the local time for recording your statistics. Be aware that there is a performance hit with using plugins with AWStats. For further details go to: http://awstats.sourceforge.net/awstats_contrib.html#PLUGINS

Step 9 – Removing the Old Web Log Files for a Clean Start

Go to the IIS web logs directory and delete ALL the log files.

These are usually located at something similar to “C:\WINDOWS\system32\Logfiles\W3SVC1992667621\” (You can see the location in Logging Properties as shown in Step 8).

If you have configured a different directory then you should know where I mean. The files usually appear to be named like exYYMMDD.log and can all be deleted (unless for some reason you wish to keep them). I believe that the difference is that their format will probably not suit the AWStats log format, so attempting to read the old log files into AWStats probably won’t work too well.

Step 10 – Configuring the AWStats Profile

Now, go to the “cgi-bin” directory of your AWStats Website and you will notice a file entitled “awstats.MyWebsite.conf” (or whatever you named your Profile from Step 3). Note that you can ultimately use this file as a template to work with any other websites you wish to gather statistics from. Open the file for editing*. There are only a few specific parameters that need to be altered in this file to get it to work. Here is the list (exactly as each appears in the Profile file) according to what I found was successful (the other parameters I left at the default settings):

*Open the file in WordPad first and view the contents. (By opening it in WordPad first it will be nicely formatted for opening in our favourite: Notepad, which I also think is one of Microsoft’s more capable programs!)

```
****************************************************************************************
LogFile="C:\WINDOWS\system32\Logfiles\W3SVC1992667621\ex%YY%MM%DD.log"

LogType=W

LogFormat="date time cs-method cs-uri-stem cs-uri-query cs-username c-ip cs-version cs(User-Agent) cs(Referer) sc-status sc-bytes"

LogSeparator=" "

SiteDomain="www.mydomain.com"

HostAliases="www.mydomain.com"

DNSLookup=1

DirData="C:\Inetpub\wwwroot\awstats\data"

DirCgi="/cgi-bin"

DirIcons="../icon"
****************************************************************************************
```

Hint 1: To get the correct LogFormat, generate a page hit (assuming you have completed Step 8) to your website and then check out the log in IIS (eg. C:\WINDOWS\system32\Logfiles\W3SVC1992667621\). Open any log file and you will see the proper format, which you can simply copy and paste straight into the “LogFormat” parameter!

Hint 2: Be very careful with your directory paths here with the “LogFile”, “DirData”, “DirCgi” and “DirIcons” parameters. I had lots of issues getting this Profile file to read the directories that I had specified using the “/”, “../” or ”.” switches. Just be warned that getting the path right is critical for AWStats to work properly and even though it looks like it is updating correctly, your statistics may not reflect the actual updates. The path that seemed to matter the most was the “DirData” path, which worked perfectly using the absolute path. (For example, DirData="C:\Inetpub\wwwroot\awstats\data").

Hint 3: Make sure you use the exact “LogFile” path for the website that you want statistics for. Don’t use the path I have used in the above example as I guarantee yours will be different from mine and for every other website!

Hint 4: Watch your quotation marks! Follow the above example carefully.

Hint 5: It is possible to add multiple domain / subdomain names / IP addresses to the “HostAliases” parameter (providing they all point to the same virtual website!). For example, you could have:

```
HostAliases="www.mydomain.com support.mydomain.com 227.12.16.212”
```

Notice how the entries are each separated by a space? In theory you should have no problems with the way I have specified the structure in the above example, but please be warned… Check it out for yourself!

Step 11 – Testing and Finishing

Let's test it out! Open a command prompt and change to the "C:\Inetpub\wwwroot\awStats\cgi-bin" directory. Run the following Perl command to update the AWStats data for display:

awstats.pl -config=MyWebsite –update

This should provide output something similar to the following on the command screen:

```
C:\Inetpub\wwwroot\awstats\cgi-bin>awstats.pl -config=MyWebsite -update
Update for config " C:\Inetpub\wwwroot\awstats\cgi-bin/awstats.MyWebsite.conf"
With data in log file " C:\WINDOWS\system32\Logfiles\W3SVC1992667621\ex040716.log"...
Phase 1 : First bypass old records, searching new record...
Direct access to last remembered record has fallen on another record.
So searching new records from beginning of log file...
Phase 2 : Now process new records (Flush history on disk after 20000 hosts)...
Jumped lines in file: 0
Parsed lines in file: 12
 Found 2 dropped records,
 Found 6 corrupted records,
 Found 0 old records,
 Found 4 new qualified records.
```

To view your statistics, open up a browser and go to the subdomain / domain that you would have set up for the AWStats virtual website and enter the following URL:

http://statistics.mydomain.com/cgi-bin/awstats.pl?config=MyWebsite

Obviously replace the subdomain / domain name and the profile name with yours!

To explain this better, you are simply running the awstats.pl file from the cgi-bin directory with the Profile file name being passed into the script. This should give us what we are ultimately seeking from this exercise - a page of statistics! If this was successful, then the URL you just used is the address we will be using from now on to view our statistics for MyWebsite!

Scheduled Updates

You will need to set up a batch file* and run it from the Windows Schedular so that it updates the statistics every hour (or whichever frequency you require). Here is an example of a simple batch file that I run every hour to update the statistics:

Batch files can be created from a simple text file (.txt) using notepad. When written, rename the file name to have a *.bat or *.cmd extension.

```
@echo off
C:\Inetpub\wwwroot\awStats\cgi-bin\awstats.pl -config=MyWebsite –update
C:\Inetpub\wwwroot\awStats\cgi-bin\awstats.pl -config=MyWebsite2 –update
```

As long as you run a scheduled update at least once a day (preferably just before midnight) you should get your statistics correctly.

If you require up-to-the-minute statistics, it is possible to dynamically update the statistics page via an "Update now" link by setting the following parameter in the Profile (conf) file:

"AllowToUpdateStatsFromBrowser=1" (see the AWStats documentation for more details).

Other Virtual Websites Need Tracking?

If you wish to create statistical tracking for another virtual website on your web server, simply copy the existing Profile file out and rename it to suit the new website you wish to track. For example:

awstats.MyWebsite2.conf

Alter the following parameters within the new Profile file to match the new virtual website:

- LogFile
- SiteDomain
- HostAliases

Make sure you follow Step 8 to configure the website logs and then run the update command as above.

Using Include Files for Multiple Virtual Websites (Optional)

If you have a lot of virtual websites to monitor, AWStats also allows you to use “includes” in your Profile (conf) files. This means that you can use a common Profile (conf) file for all virtual websites and include only the LogFile, SiteDomain and HostAliases parameters (as above) for each website. As an example, my awstats.MyWebsite.conf would look similar to the following:

```
******************************************************************************************
Include "awstats.common.conf"

LogFile=" C:\WINDOWS\system32\Logfiles\W3SVC1992667621\ex%YY%MM%DD.log"

SiteDomain="www.mydomain.com"

HostAliases=" www.mydomain.com "
******************************************************************************************
```

In the above example, the "awstats.common.conf" file would have the LogFile, SiteDomain and HostAliases parameters commented out with a “#”. Remember to use the correct path to the “included” Profile (conf) file. In the above example it assumes that all Profile (conf) files reside in the same directory.

Creating Static Statistics Pages (Optional)

If you prefer, you can also run a Perl command to build static pages of your site statistics by simply adding the following commands to your batch file (after the update command) for each website:

```
awstats.pl -config=MyWebsite -output -staticlinks > C:\Inetpub\wwwroot\awStats\awstats.MyWebsite.html
awstats_buildstaticpages.pl -config=MyWebsite
```

Please note that you will need to copy the “awstats_buildstaticpages.pl” script file from the “C:\Program Files\AWStats\tools” directory into the "C:\Inetpub\wwwroot\awstats\cgi-bin" directory. The commands “-output -staticlinks” literally “pipe” the output to new HTML pages (which you name) for viewing, so wherever you create these pages is where you should be viewing your statistics. The “awstats_buildstaticpages.pl” command creates all of the detailed pages. Each time you run this batch file your static pages will obviously be overwritten. As long as you run the scheduled update at least once (no less than 2 minutes) before midnight of the day you wish to gather statistics for, you will get your statistics correctly for that given day.

Extra Security (Optional)

If you wish to secure your statistical pages you can always employ standard Windows authentication to secure the AWStats directories. Set up a user with ONLY “Read” access to the AWStats directory. Then, using IIS disable Anonymous Access to the AWStats Website forcing a Windows logon to access your AWStats Website statistics. Simple, and it works a treat!

Possible Errors and Issues

Thanks must go to Wayne Wallace for providing some information in case you receive the dreaded “403 Access Denied” issue while running the Perl scripts. He advised that Microsoft have provided a KB article to address these types of issues at http://support.microsoft.com/kb/904056/en-us.

Winding Up

There is no end to the number of Profiles that can be set up. This should hopefully conclude the process for installing the AWStats program. As mentioned earlier, if anyone has any issues with this guide, please do not hesitate to contact me so that I can address any documentation issues. In fact, if anyone has any suggestions to add value to this document please let me know so that we can make the document even more comprehensive and valuable.

Finally, if this guide has contributed to making your life slightly easier, then send me a shout because it'd be nice to know that I actually made a difference!

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