

IIS 5 Log Files

Thinking about creating and maintaining your own public internet web server and website? One thing to consider is keeping track of what your visitors do while they are browsing your webpage. That's where file logging comes in. I like to think that logging web user activity is much like requiring guests at a hotel or bed and breakfast to sign a guestbook. A successful inn keeper welcomes all visitors and maintains some record of their visitor, including length of stay, etc.

File Logging for a web server is similar to an open guestbook in the lobby, but this record is more thorough and is hidden from the users. It also provides a list of attempted break-ins and hack attempts. Microsoft's Internet Information Services (IIS) ver. 5.1 snap-in provides 3 different types of file logging. All three types are text based and designed for a single site. They are **Microsoft IIS Log File Format**, **NCSA Common Log File Format**, and **W3C Extended Log File Format**. An example of each along with a description is provided below:

Microsoft IIS Log File Format – Fixed format standard devised by Microsoft.

Example:

```
192.168.114.201,,03/20/98,7:55:20,W3SVC2,SALES1,192.168.114.201,4502,163,3223,200,0,GET,DeptL  
ogo.gif  
172.16.255.255,anonymous,03/20/98,23:58:11,MSFTPSVC,SALES1,192.168.114.201,60,275,0,0,0,PAS  
S,intro.htm
```

NCSA Common Log File Format – Fixed format standard created by the National Center for Supercomputing Applications (NCSA). Example:

```
172.21.13.45 REDMOND\fred [08/Apr/1997:17:39:04 -0800] "GET  
/scripts/iisadmin/ism.dll?http/serv HTTP/1.0" 200 3401
```

W3C Extended Log File Format – Customizable format which is the default type for logging in IIS. Example:

```
W3C  
#Software: Microsoft Internet Information Services 5.1  
#Version: 1.0  
#Date: 2004-08-26 00:04:35  
#Fields: time c-ip cs-method cs-uri-stem sc-status  
00:04:35 172.18.61.107 GET /iisstart.asp 200
```

There are different reasons for using a specific file format. Many third party web server log file analytical programs use one form or another. Some programs even require using the customizable W3C Extended Log File Format because of their flexibility and input requirements to exam all necessary data.

Setting the Log File Format

To view the properties for a web server, run the Internet Information Services under the Administrative Tools. Open the web sites folder so that the web page being examined is highlighted, as shown in Figure 1.

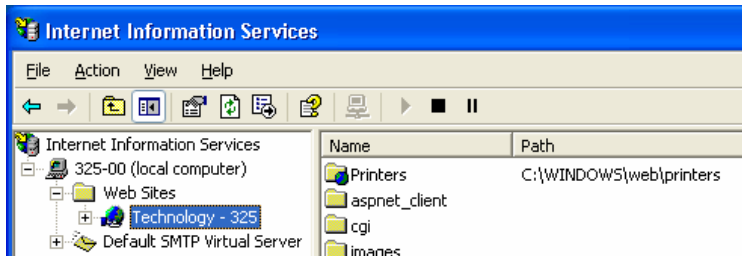


Figure 1. Highlighting the base web page.

Right click on the web server item and then click on Properties. A web server properties screen will be displayed similar to the one shown in Figure 2.

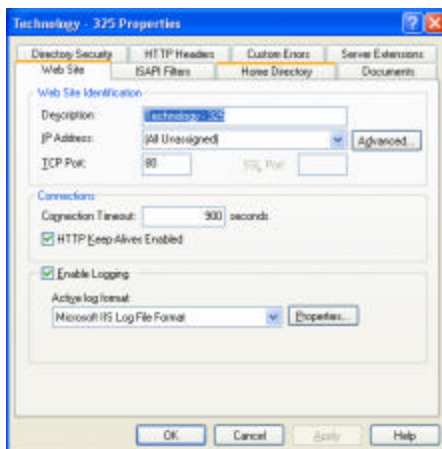


Figure 2. Web server properties in IIS.

Click on the Web Site tab. On the page below is the Enable Logging check box. No logging is performed unless this is checked. Below this is the selection box with the properties button on the right. Figure 3 shows the three available options.

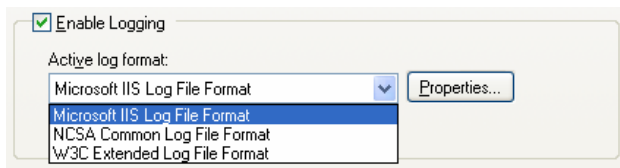


Figure 3. Active Log Formats.

The properties are different for the formats. To check this click the Active log format and then click the Properties button. These properties include the Time Period, log file size, and the directory where they are saved.

The properties for the Microsoft IIS and NCSA Common formats are similar and are shown in Figure 4 respectively.

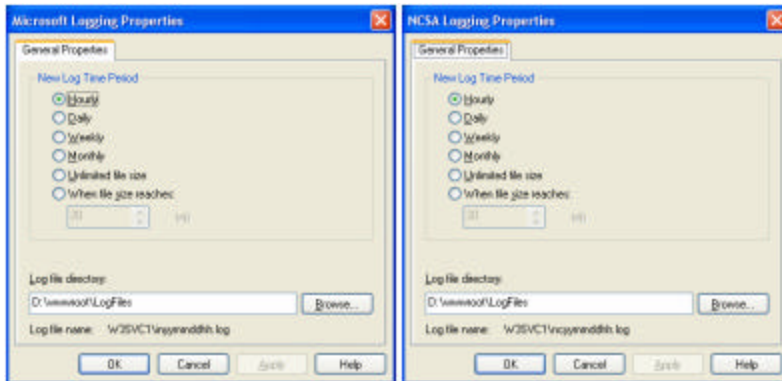


Figure 4. Microsoft and NCSA Logging Properties.

W3C Extended Log File Format option is again similar to the previous two formats, but also provides Extended Properties available on the Extended Properties tab. Figure 5 shows the Extended properties with all options showing.

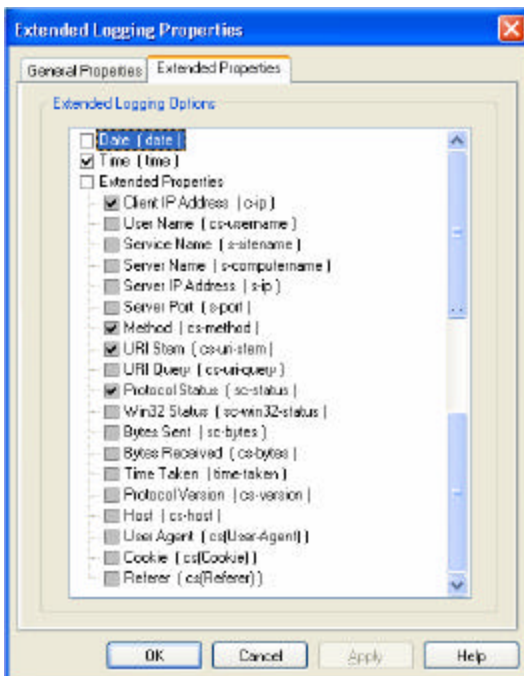


Figure 5. All Extended Properties shown.

If you make any changes to the Log File Format, click Apply and OK.

Keep track of what your visitors do while visiting your web page by utilizing the options available in the various Log File Formats in IIS.

Author: Michael Keller
Title: Lab Technician
Platform: PC
Date: October 5, 2004

Web Resources:

- http://www.microsoft.com/resources/documentation/IIS/6/all/techref/en-us/iisRG_LOG_2.msp
- <http://www.iisfaq.com/Default.aspx?tabid=3077>