Troubleshooting iSeries Access for Web Problems
iSeries News
Written by Carole A Miner
December 17, 2003

This article is a continuation on the topic of Troubleshooting Tools available in the iSeries Access Family. Last month we covered what tools were available for iSeries Access for Windows. This month we will discuss some first steps if you are using the iSeries Access for Web product in your desktop browser.

iSeries Access for Web

Access for Web (product number 5722-XH2) is a Java application that runs on the iSeries server within a web application server (such as WebSphere Application Server or Apache Software Foundation Tomcat). Because the product requires no PC code installation, the troubleshooting basically come down to ensuring that the browser user can connect to the iSeries server, and the Access for Web application.

To install and configure Access for Web on your iSeries server, you first need to download the 'iSeries Access for Web Installation and Users Guide', SC41-5518, from the Access for Web page at www.ibm.com/eserver/iseries/access/web. If you use the 'Checklist' provided and follow the documentation you should have Access for Web up and running in a short while. Another good source of information is the newly available 'iSeries Access for Web and HATS Limited Edition: V5R2 Hot Topics for iSeries Browser Users', SG24-7005. A downloadable copy of this too can be found on the iSeries Access web page.

We Don't Need No Stinkin' Manuals

However, there's a growing consensus among many people that reading directions is just for wimps or those who have lots of spare time. Many iSeries customers appear to follow this philosophy. Here is a sampling of some of the more common Access for Web complaints IBM has received that indicate that many product installation and configuration headaches could have been avoided by more carefully following the documentation. What follows are some FAQs IBM has received and their answers, most of which are found in the documentation that is available for the product!

- "I can't find the Access for Web, 5722-XH2, product" – because Access for Web must be installed on the iSeries, not the PC, it is not on the iSeries Access Family, 5722-XW1, PC CD. Instead it is on the iSeries Keyed Products CD (L2924_01).
- "This version of the software seems identical to the 5250 emulator code for V5R1" – if you only use the PTF that shipped with V5R2, you don't have the new 5250 emulator code, but rather the XML Legacy Gateway version that was used with the V5R1 product. For installation of any software you should make sure you have the latest PTFs. To find out what PTFs are available for Access for Web, go to its web page at www.ibm.com/eserver/iseries/web, select 'Support', then 'Service Packs (PTFs).
- "I did a Restore License Program of Access for Web, 5722-XH2, onto the iSeries but cannot connect to the iSeries using the Access for Web page of www.myiseries/webaccess/iWAHome" – To successfully connect, you not only must install the Access for Web code on the iSeries, but you must configure and start it. Follow the steps in the Installation and Users Guide. Next make sure you have all the pre-requisite iSeries server software installed (and running):
    - One required product that is frequently missing is the correct version of the Java Developer Kit. To use the V5R2 version of Access for Web (5722-XH2), you need JDK 1.2 (5722-JV1 option 3) installed on the iSeries server before you configure Access for Web.
    - Another product you need to install is 5722-SS1 Option 8, AFP Compatibility Fonts – without which you will have problems when attempting to view printed output.

- "I'm trying to configure Access for Web using ASF Tomcat. Everything seems to configure properly and I can get the HTTP server page up. However, when I try to get to the Access for Web page it fails" – you need to assign one port number to the HTTP server and another port number to the Tomcat server. Many customers try to use the same port number for both. This does not work because each port number must be unique and unused.
- "When I am using the Access for Web configure CL command (CFGACCWEB2) to run on ASF Tomcat, I get an error message 'the Tomcat home directory that was specified does not exist on the server'" – When you are configuring Access for Web you have to specify the correct path to the ASF Tomcat server. The Setup and Users Guide provides detailed information on what to enter and where to find the correct value.
- "I am experiencing issues running any of the Access for Web CL commands (CFGACCWEB2, STRACCWEB2, ENDACCWEB2, RMVACCWEB2) on an iSeries server that has the minimum CPW and memory required for the version of WebSphere Application Server I am running" – The Access for Web CL commands invoke a WebSphere function to perform configuration changes to the WebSphere environment. On servers equipped with the minimum CPW and memory required for the WebSphere environment, the WebSphere function may time out, causing the iSeries Access for Web CL command to fail. A workaround that may help is to increase the com.ibm.SOAP.requestTimeout value in the property file listed so the WebSphere function has more time to process before timing out. For WAS 5.0 for iSeries ("Base Edition"), the property file is /QIBM/UserData/WebAS5/Base/*(instance)*/properties/soap.client.props. For For WAS 5.0 - Express for iSeries, the property file is /QIBM/UserData/WebASE/ASE5/*(instance)*/properties/soap.client.props

- "How does running Access for Web affect server performance?" – The answer to this question is determined more by the load on your Web application server and other system workloads than it does with running Access for Web. Use the IBM *@server* Workload Estimator tool to estimate the computer resources required for Domino, Java, WebSphere Commerce, WebSphere, Web Serving and traditional workloads. You can access this on the web at www-912.ibm.com/supporthome.nsf/document/16533356. The Workload Estimator offers calculations for the most current iSeries or AS/400e models. The Workload Estimator does not address Access for Web usage, but it does provide WebFacing workloads, which will work as ballpark numbers for Access for Web as well. If you are using a WebSphere Application Server on your system, you may want to fine-tune it. Check out the iSeries WebSphere web page at http://www.ibm.com/servers/eserver/iseries/software/websphere/index2.html and read Chapter 3 of the 'Buying and Selling Guide'. It contains many good tips for getting optimal performance from WAS.

- "I am using WAS V5 Express for iSeries. How can I get Access for Web to start automatically after my system IPL's each night?" – You can use a CL command to start you application server instance. But before making the call, you need to be sure to start the WAS Express subsystem first by running the command: STRSBS QASE5/QASE5. To start your application server from the OS/400 command line, run this command:

```
SBMJOB CMD(CALL PGM(QASE5/QASESTRSVR) PARM('-instance'
'/QIBM/UserData/WEBASE/ASE5/instance')) JOB(instance)
JOBD(QASE5/QASE5) JOBQ(QASE5/QASE5) USER(QEJBSVR) LANGID(*USRPRF)
CNTRYID(*USRPRF) CCSID(*USRPRF)
```

where *instance* is the name of the application server instance that you want to start. You can only start one application server when you run this command. To start additional application servers, you must run the command separately for each application server that you want to start.
Note: To run this command, your user profile must have *USE authority to the QEJBSVR user profile. Use the Edit Object Authority (EDTOBJAUT) command to add or verify that your user profile has this authority.

Getting More Information

Access for Web does provide a wealth of information about your network environment. Although it is in somewhat of an unnatural place to look, you can find this from your main page (i.g. //you iseries name/webaccess/iWAMain) by clicking on the 'Other' Tab from the navigation panel, and then selecting 'About'.
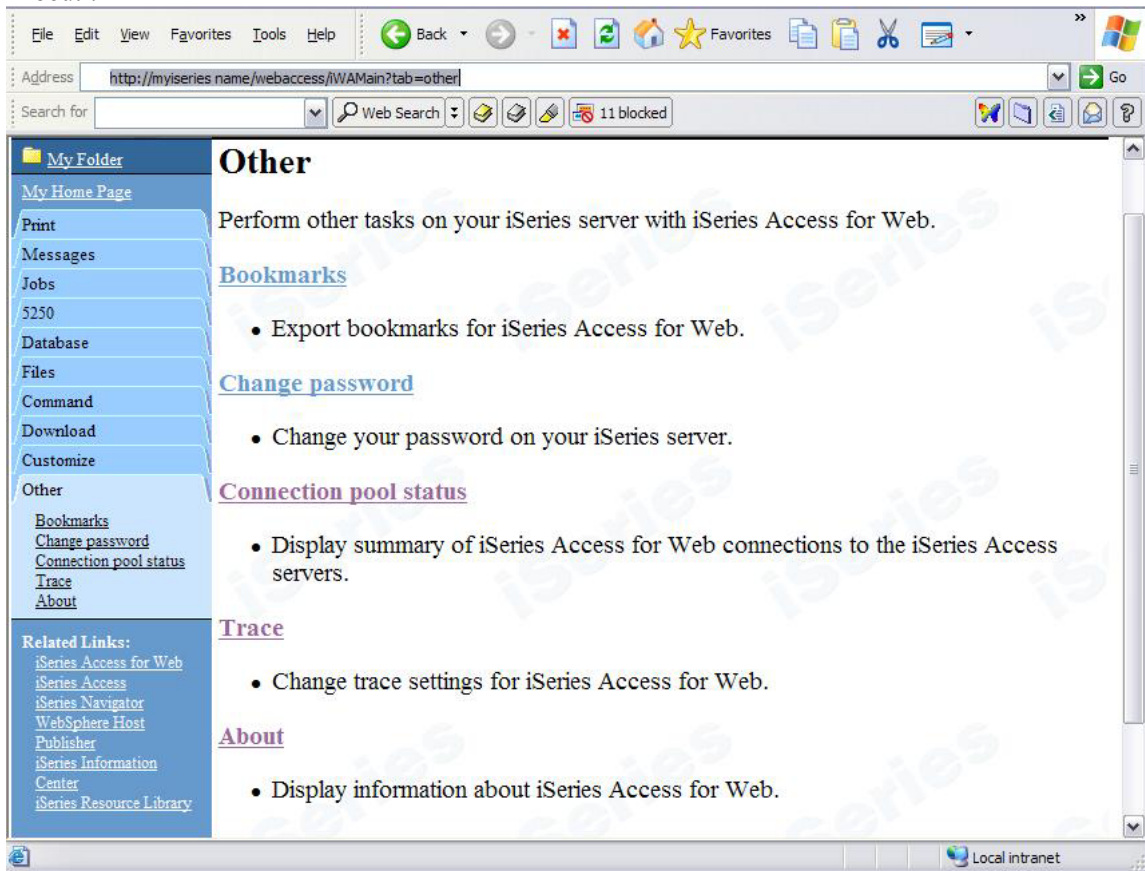

Figure 1. About iSeries Access For Web

One function of interest is the 'Connection Pool Status'. This provides information on the total number of active connections, number of available connections, total number of users that have connected, total number of users that are currently active, etc. More importantly, after reviewing your Connection Pool Status, the iSeries administrator can click on the link for 'Settings – Connection Pool' and set up and manage the iSeries Access servers used by Access for Web. In Figure 2 you will see that the administrator can control the total number of connections, maximum connections per users, inactivity clean-up, etc.
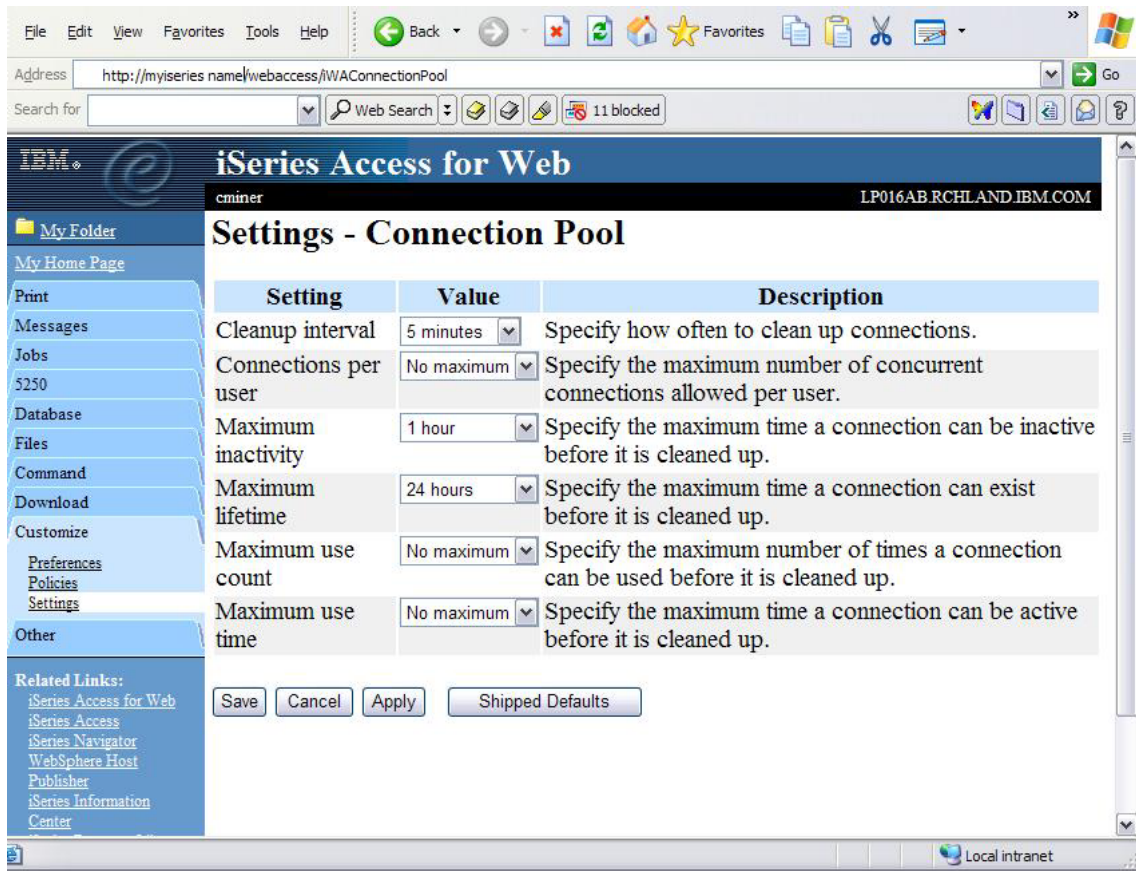
Figure 2. Settings – Connection Pool

Other information, you will find in 'About' includes:

- Product Information – iSeries Access for Web version, fix level installed…
- Request Information -- TCP/IP addresses, iSeries server name, web application server being used…
- Request Headers – accept language, connection, cookies…
- iSeries Access for Web Information – end user ID, session number, installed language…
- iSeries Access for Web Properties – trace and pooling information …
- iSeries Toolbox for Java Properties – trace information…
- Connection Pool Properties – cleanup interval, connections per user…
- File Content Type Map – file types such as .xls, .123, .html, .xml…
- System Properties – information about iSeries, entry points…
- Memory – total iSeries member used and available

At the bottom of this list of information there are a couple of other pieces of information that can be nice to have:

- List of all installed software products on your iSeries server, an easy way to see what you have installed. You can even drill down and find more information on each product, such as what software fixes (PTFs) have been applied for that specific product, as well as the Software Fix Properties.
- A list of system values that includes the system value categories shown in Figure 3.

Category	Description
Allocation	Allocation system values
Date and Time	Date and time system values
Editing	Editing system values
Library List	Library list system values
Message and Logging	Message and logging system values
Security	Security system values
Storage	Storage system values
System Control	System control system values
Network Attributes	Network attributes of the system
All	All system values in the system

Figure 3. iSeries System Values

Some Final Tips

Because iSeries Access for Web uses the TCP/IP protocol you don't really need to do any configuration work on the desktop other having a network adapter. Then it is simply a matter of insuring you can connect to your iSeries server. And for those very difficult network situations, Access for Web provides tracing capabilities to aid in tracking down problems. If you do need to contact IBM Service, it is likely that they will ask you to run the 'Trace' utility, and they will provide information on how to use it. See Figure 4 for an example of the type of information that can be collected.
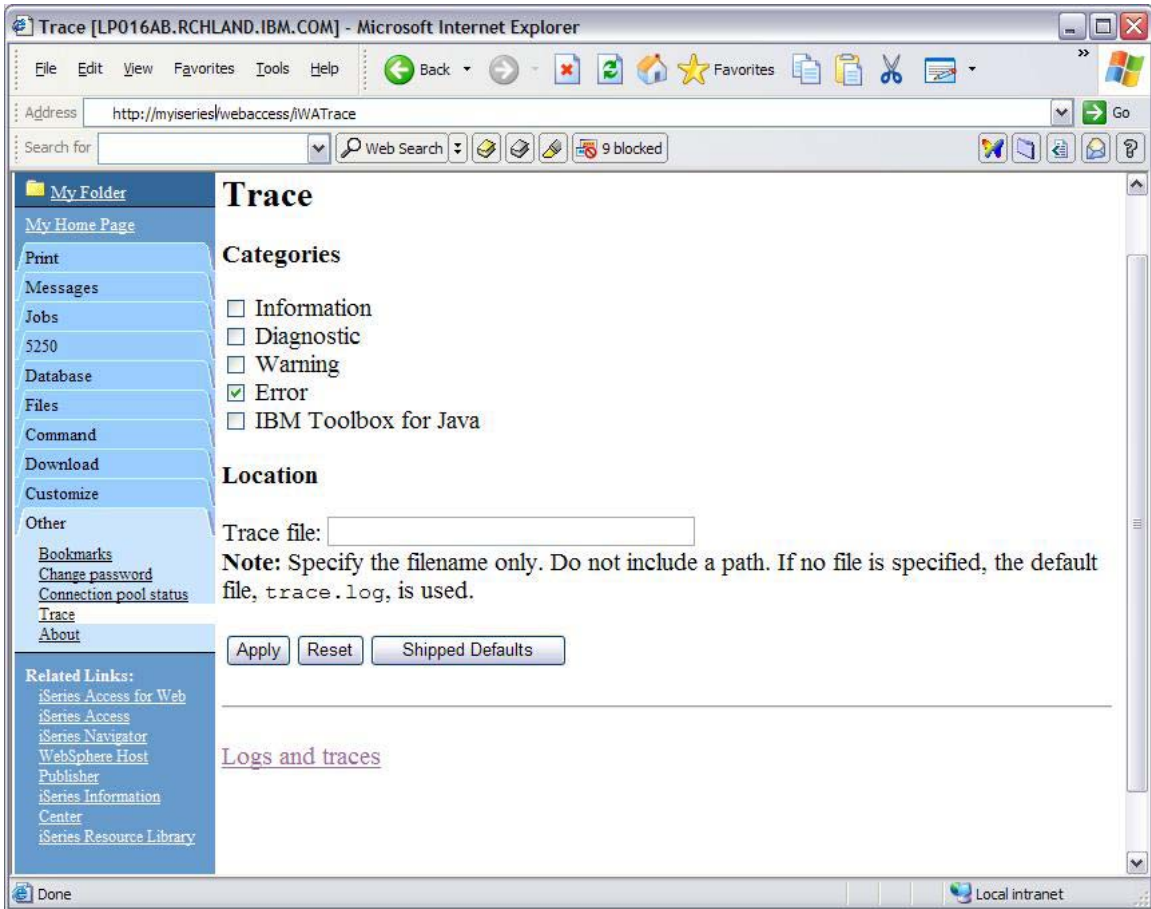
Figure 4. Gathering information using the Trace function

New V5R3 iSeries Access for Web

On January 30, 2004, the V5R3 version of iSeries Access for Web (product number 5722-XH2, V5R3) was made available for download from the Access for Web page. This product has worldwide IBM Support via telephone or electronic services. It will be included in the next refresh of the iSeries Access Family, Product 5722-XW1. It is currently supported on both OS/400 V5R1 and V5R2.

Carole A Miner is a senior software engineer in the iSeries Client integration area in the IBM Rochester lab. Carole has held a variety of programming, management, and planning roles on Rochester-developed products. Since 1988, Carole has mainly focused on client integration.