

# WEB BROWSER CONSIDERATIONS

To access SpoolOrganizer/400 via a web browser, OS/400 must be set up properly. The following areas must be set up by the AS/400 administrator:

**Domain Name/IP Address/Port Number**  
**HTTP Server Instance**  
**Validation List**

IBM offers tutorials for setting up an HTTP server at:

*<http://www.as400.ibm.com/tstudio/workshop/webbuild.htm>*

This tutorial will guide you step by step through the setup required for web browser considerations.

Below are some OS/400 setup suggestions for OS/400. For more information contact your network support team or IBM.

## *Domain Name/IP Address/Port Number*

The SpoolOrganizer HTTP server (or any server) will require an IP address and a port number. The network administrator must provide this information. The AS/400 administrator must either assign the server to a unique IP address or use a unique port within an existing address. HTTP servers use port 80 by default. If another server is already using port 80, you will need to assign the SpoolOrganizer to another port. The tutorial mentioned above will show you how to do this. In this case pick a number greater than 1024 (i.e. 8080). Keep in mind users will access the SpoolOrganizer server from their web browser by entering the IP address (and the port if its not 80). For example:

***http://your.ip.address:8080***

To define a an IP address to the AS/400, bring up the “Configure TCP” menu:

**GO CFGTCP**

Select “Work with Interfaces” to verify the IP address is defined. If not, you will need to create an interface. To check the status of the interface, press **F11**. The status should be **Active**.

You probably want users to refer to the SpoolOrganizer server by a name rather than an address number. To do this, the AS/400 administrator must either enroll the AS/400’s IP address and Domain Name to a Domain Name System Name server (DNS) (for Internet access) AND/OR set up the domain name as a host name in the AS/400 Host Name Table (for local network access). We recommend using a DNS if possible. The host name table can also be accessed from the “Configure TCP” menu.

To verify your IP address and Domain Name is set up properly, use the Ping utility. For example, from a remote PC or the A/400 command entry screen, enter the DOS shell and enter the following commands:

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**ping** *your.ip.address*

or

**ping** *your.domain.com*

**Note:** If you suspect the problem is with the local system, try to ping other known IP addresses or domains. For example, you can ping our system (we don't mind):

**ping** *broderickdata.com*      or      **ping** *207.40.118.2*

The ping command will contact the remote system, read the reply data, and calculate the round trip time. Any errors in the setup will cause the ping command to an error message.

## *HTTP Server Instance*

The administrator can use the AS/400 Administrative HTTP Server instance to set up Server instances. To start the administrative HTTP server instance enter the following command:

**STRTCPSVR SERVER(\*HTTP) HTTPSVR(\*ADMIN)**

You access the administrative server from your web browser by entering your domain through port 2001 as shown below:

*http://your.ip.address:2001*

A Server Instance must be configured. The name of the Server Instance is your choice, we recommend you use **SPOOLSVR**. Once set up, you can start the Server Instance using the following command:

**STRTCPSVR SERVER(\*HTTP) HTTPSVR(SPOOLSVR)**

## *Validation List*

We strongly recommend you limit access to SpoolOrganizer via an Access List. An Access List is an AS/400 Validation List object (type \*VLDL) that contains user ids and passwords. The sample Configuration shipped with SpoolOrganizer is set up to use Validation List **%%SYSTEM%%**, which uses the OS/400 internal user profiles as its validation list. SpoolOrganizer also provides validation list **BSOUSR** in library **BDSDATA**, but the Administrator can use another if desired. Note that **\*PUBLIC**, or at least the Server Jobs' user profile, must have at least **\*USE** authority to the Validation List Object. If not, even valid user id/password attempts will fail. In some cases, RSTOBJ operations will remove public authorities from the restored Validation List object.

When a user attempts to use the SpoolOrganizer server's features protected by an Access List, the web browser will display a sign on window requesting a user id and password. The user must enter one of the

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values set up by you to continue. Also, SpoolOrganizer programs will retrieve the user field from the sign on window and use it as the user profile for security checking.

To set up Access List Entries, enter the AS/400 Administrative Server, Internet users, Add Internet User. Enter a User ID and Password. For Validation List, enter **BSDATA/BSOUSR**. Leave the Group File and Group blank.

## Notes:

1) SpoolOrganizer will translate the user id to upper case when using it for security checking. . However the server will not if a validation list other than **%%SYSTEM%%** is used. If you use a non-system validation list we recommend you enter the user id and password in lower case and inform your users.

2) The administrator can use any other available method to place entries into the Validation List **BSDATA/BSOUSR**.

3) SpoolOrganizer security is based on user id. If a non-system Validation List is used, remember to add each created list user as a SpoolOrganizer user.

## *Apache Server Example Configuration*

Below is an example configuration file used to configure Apache HTTP server instance BDS. It allows users to access the Spool Organizer Web Browser Interface.

```
1 # Configuration originally created by Create HTTP Server wizard on Tue Apr 26
14:42:22 EST 2005
2 Listen *:80
3 DocumentRoot /BRODERICK/SPOR40/PGMS
4 Options -ExecCGI -FollowSymLinks -SymLinksIfOwnerMatch -Includes -
IncludesNoExec -Indexes -MultiViews
5 LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\""
combined
6 LogFormat "%{Cookie}n \"%r\" %t" cookie
7 LogFormat "%{User-agent}i" agent
8 LogFormat "%{Referer}i -> %U" referer
9 LogFormat "%h %l %u %t \"%r\" %>s %b" common
10 CustomLog logs/access_log combined
11 LogMaint logs/access_log 7 0
12 LogMaint logs/error_log 7 0
13 SetEnvIf "User-Agent" "Mozilla/2" nokeepalive
14 SetEnvIf "User-Agent" "JDK/1\.\0" force-response-1.0
15 SetEnvIf "User-Agent" "Java/1\.\0" force-response-1.0
16 SetEnvIf "User-Agent" "RealPlayer 4\.\0" force-response-1.0
17 SetEnvIf "User-Agent" "MSIE 4\.\0b2;" nokeepalive
18 SetEnvIf "User-Agent" "MSIE 4\.\0b2;" force-response-1.0
```

# SPPOOLORGANIZER™

```
19 <Directory />
20     Order Deny,Allow
21     Deny From all
22 </Directory>
23 <Directory /BRODERICK/SPOR40/PGMS>
24     Order Allow,Deny
25     Allow From all
26     Require valid-user
27     Options +ExecCGI
28     AuthName "OS/400 User ID and PW"
29     AuthType Basic
30     DirectoryIndex index.htm
31     UserID %%CLIENT%%
32     PasswdFile %%SYSTEM%%
33 </Directory>
34 <Directory /QSYS.LIB/BRODERICK.LIB>
35     Order Allow,Deny
36     Allow From all
37     Require valid-user
38     Options +ExecCGI
39     AuthType Basic
40     AuthName "OS/400 User ID and PW"
41     PasswdFile %%SYSTEM%%
42 </Directory>
43 ScriptAliasMatch ^/cgi-bin/(.*)?(.*) /qsys.lib/broderick.lib/$1.pgm$2
44 ScriptAlias /cgi-bin/ /QSYS.LIB/BRODERICK.LIB/
```