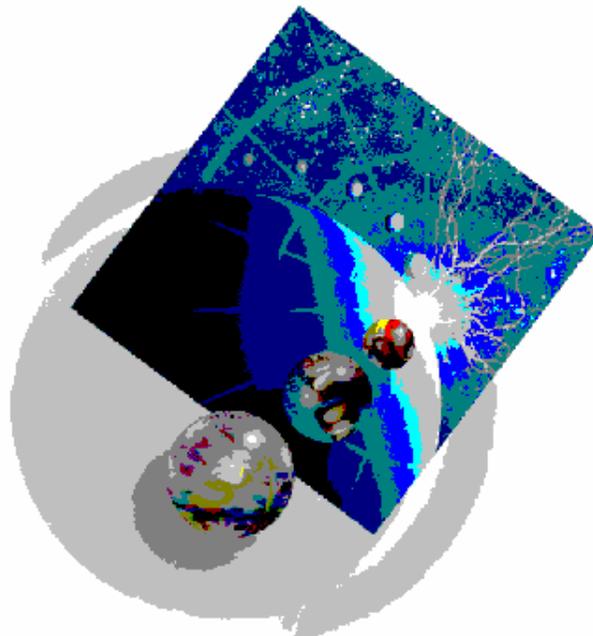

WebSphere Application Server Express V5.0 For iSeries

Exercises

Configuration and Administration Lab
Version 1.0.1 3/11/2003



WebSphere Application Server Configuration Lab

The objective of this lab is to create a new WebSphere Application Server - Express for iSeries (WAS Express) instance that will be used for subsequent labs in this workshop. This allows each team to configure and use resources independent of one another. This would be useful in other scenarios as well such as enabling production, development and test servers on the same iSeries system.

This Lab Exercise has following steps:

- 1. Create your own WAS Express and Apache HTTP Server Instance***
- 2. Test your instance via the WAS Express Internal HTTP Server***
- 3. Test your instance, the Apache HTTP server***

Optional steps:

- 4. Familiarize yourself with the integrated WAS Express administrative console***
- 5. Activate the full function WAS Express administrative console***
- 6. Using the Express Console to modify JVM settings.***
- 7. Regenerate the HTTP server plugin from the full function administrative consoleView the iSeries job information***
- 8. View the log files within the integrated console***

Preliminary Step - Verify System Prerequisites

For this lab, we must assume you have Websphere Application Server Express V5 and all necessary prerequisite software such as PTF's installed. The next few steps will walk you thru ensuring the infrastructure is set up properly for getting Websphere Application Server Express V5 operational on your iSeries server.

Also assumed is that you have a valid Userid, and Password for the system you are testing on. When asked for team number xx, assume team01.

- ___ 1. Sign on to a 5250 session on the iSeries server being used for this class. At the command line, enter GO LIC PGM and press enter.
- ___ 2. Select option 10 (Display installed licensed programs) and press enter.
- ___ 3. At the Display installed licensed programs screen, scroll down until you see licensed program 5722IWE.
- ___ 4. Note that there are two or more items displayed. Press the F11 key once or twice to display the installed release and product options parameters.
- ___ 5. Press the F3 key to exit back to a command line. At the command line, enter WRKPTFGRP and press the enter key. Note that there are a number of Group PTF's installed on the server. For OS/400 V5R2, these are some of the important Group PTF's from a WAS Express perspective:

```
SF99098 (HTTP Server)
SF99169 (Java)
SF99271 (WAS Express)
```

- ___ 6. Press the F3 key to exit back to a command line. At the command line, enter WRKACTJOB and press the enter key. Ensure that the QASE5 subsystem is active.
- ___ 7. Now that you have verified that the product and necessary prerequisites are in place, the next step is to create your WebSphere Application Server Express server.

1. Create your own WAS Express Instance

Throughout the lab exercises, replace XX with your team number.

You will create your own WAS Express Server instance via the HTTP Server administration application you used in an earlier lab.

- ___ 1. Open up a web browser session on your workstation. Go to the following URL:

```
http://server:2001 (where server is the iSeries host or TCP/IP address)Enter
your iSeries Username and Password
```

- ___ 2. You should be at the iSeries Tasks web page, as shown in the next diagram.

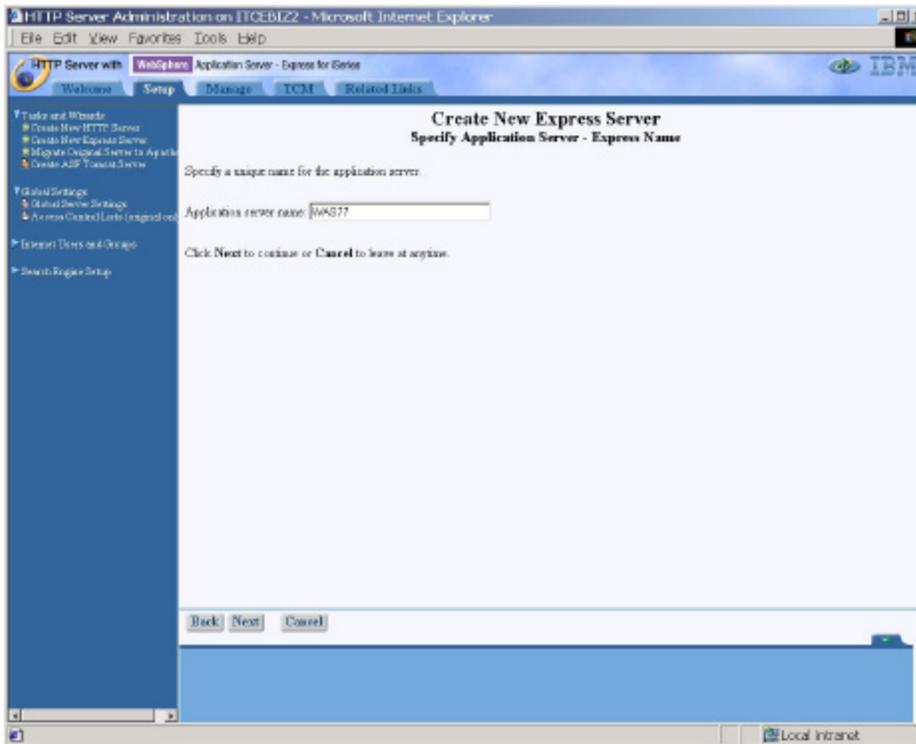


- ___ 3. Click on the IBM H TTP Server for iSeries link.
- ___ 4. Note the different page tabs (Welcome, Setup, Manage, TCM and Related Links). Select the Setup tab, if it is not already selected.
- ___ 5. At the Setup page, observe the navigation frame on the left side. Locate the Tasks and Wizards category and click on the link a few times to familiarize yourself with how to expose and hide the various options.

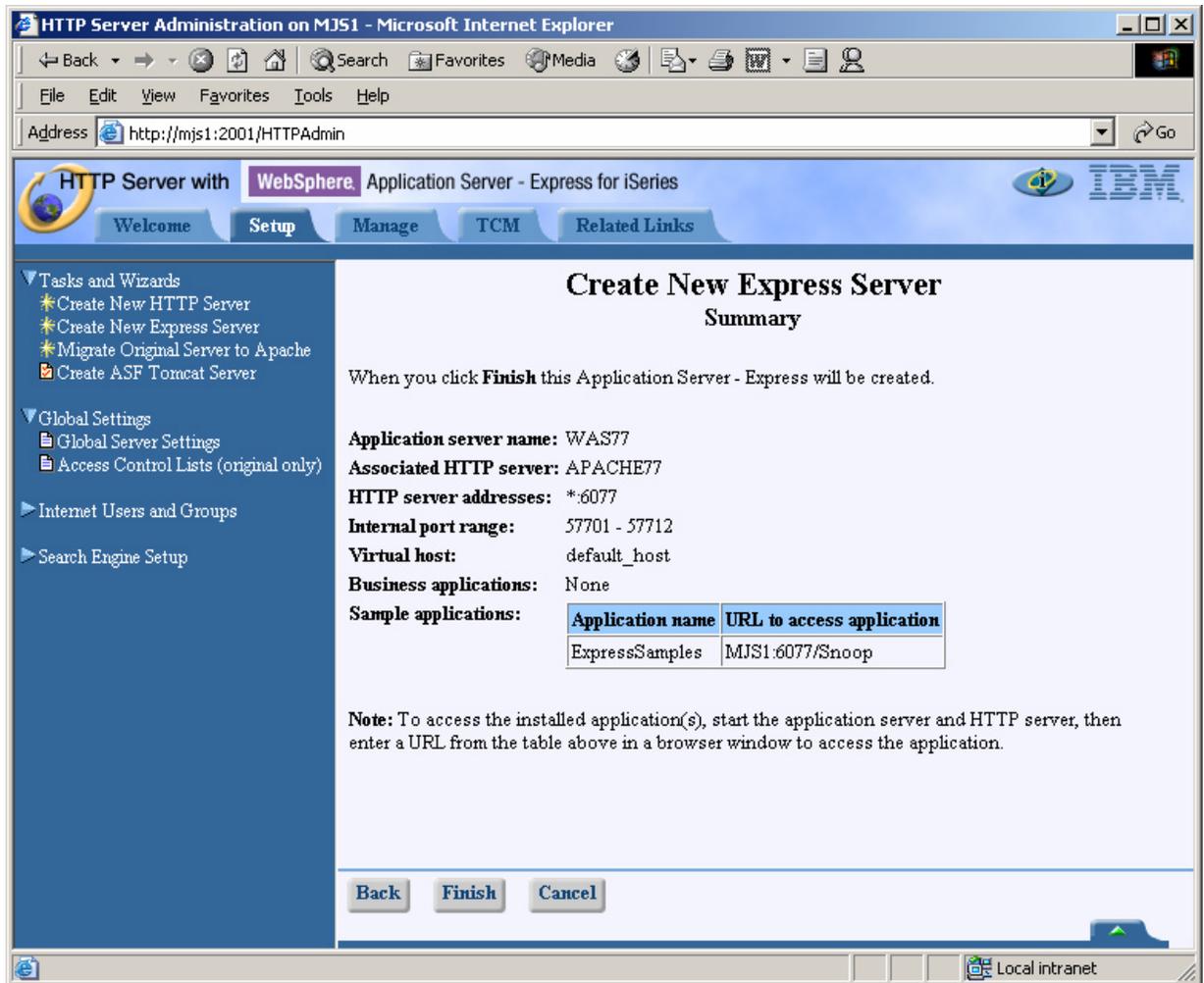


- ___ 6. Select the Create New Express Server option from the Tasks and Wizards category.
- ___ 7. You should see a Create New Express Server welcome type page, with sections entitled Virtual Hosts, Install Application, and Data Sources and JDBC Providers. Click the Next button.

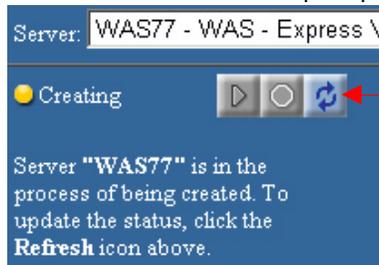
- ___ 8. The next screen lets you specify your application server name. Enter your particular server name (ie WASXX where XX is your team number) and click the Next button. See the next diagram.



- ___ 9. The next screen lets you Create a new HTTP server. Choose the Create a new HTTP server (powered by Apache) option and click the Next button.
- ___ 10. The next screen lets you name your new HTTP server and choose the port it uses. Enter ApacheXX where XX is your team number for the server name, all IP addresses for the IP address and 60XX for the server port. Click the Next button.
- ___ 11. The next screen lets you specify the TCP/IP ports your WAS Express instance will use. Note that WAS Express requires 12 consecutive, unused ports for its internal operation. Enter your particular starting port number, as indicated on your tent card or lab setup sheet (ie 5xx01, where xx is your team number). Click the Next button
- ___ 12. The next screen lets you specify which business and sample applications you want to install. For this lab, just select the Express Samples application. Click the Next button.
- ___ 13. The next screen lets you verify your WAS Express application server settings. Double check your application server name and the TCP/IP port settings to ensure they are correct. After verifying your settings are correct, click the finish button. Here is an example for team 77.



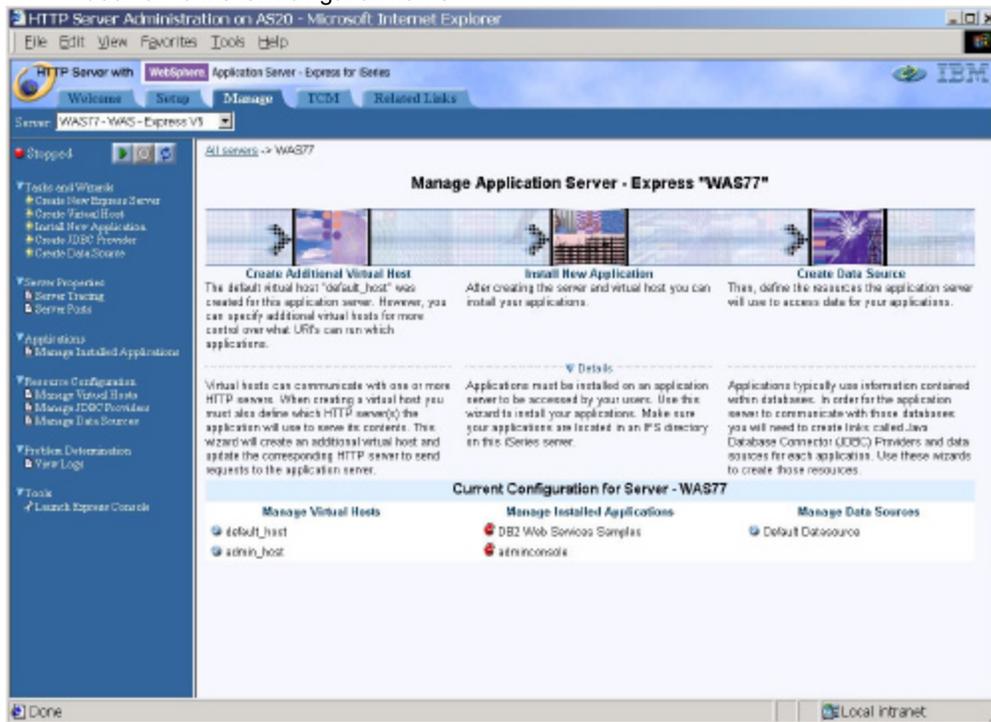
- ___ 14. Depending on the size of the iSeries server used in the class and how many other students are doing the lab, it may take 5 or more minutes for your instance to be created. Now would be a good time to take a break, or possibly look thru the next lab steps.
- ___ 15. After a few minutes have elapsed press the refresh button.



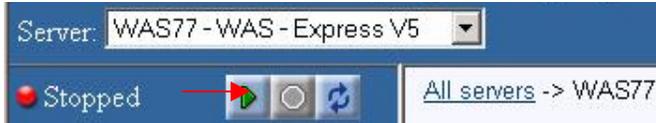
The HTTP server ADMIN job will be consuming significant system resources during this time. Please avoid the temptation to frequently refresh the screen, as it will only prolong the completion.

- ___ 16. After your WAS Express instance has been created, you should be in the Manage screen tab and see the Manage Application Server - Express "yourservername" screen as shown in the next

diagram. Note that a number of configuration options can be selected from the main panel, in addition to the left navigation frame.



___ 17. Locate the server administration buttons at the top of the left navigation frame.



___ 18. Click the start button (the one with the green triangle).

___ 19. Depending on the size of the iSeries server used in the class and how many other students are doing the lab, it will take a few minutes for your instance to start. You can periodically (every 10 seconds or so) click the refresh button to determine when your application server has started.

___ 20. If all goes well, your server should now be started.

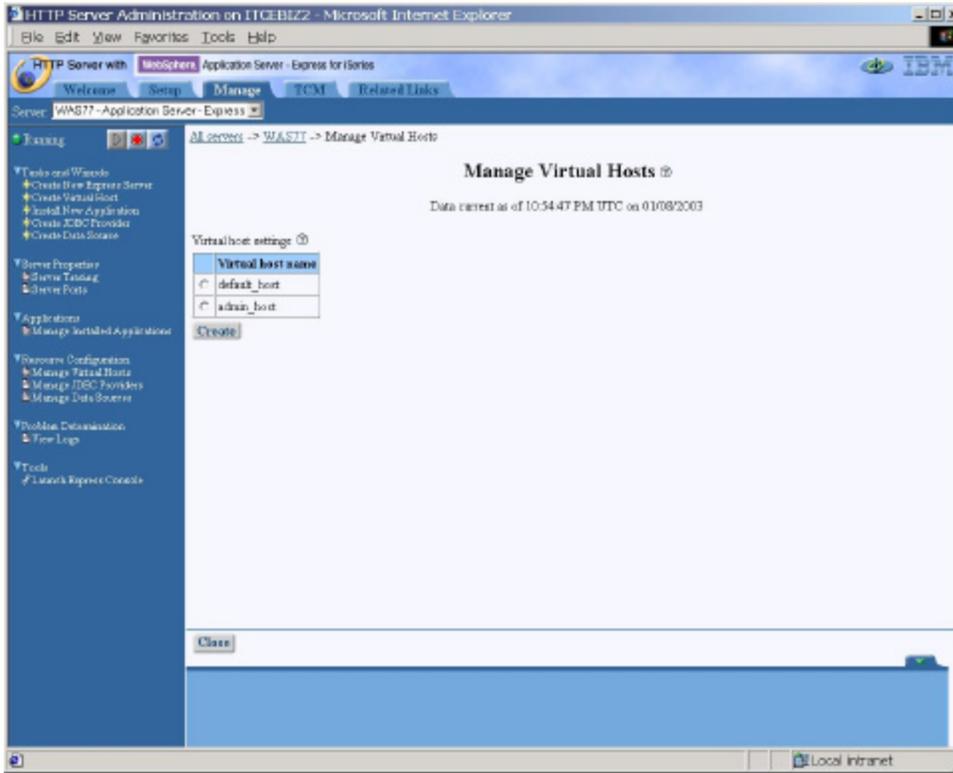


___ 21. Your next step is to run a test application to determine if your server was setup correctly.

2. Test your instance via the WAS Express Internal HTTP Server

In this step you will test your Express instance using its internal HTTP server port, and the sample application you installed in step 1. You will perform this task in two steps. First, you will need to know the internal HTTP server port that your Express instance is using. Second, you will then use this to try running the snoop test servlet.

1. At the Express configuration console, click the Manage Virtual Hosts option under the Resource Configuration category



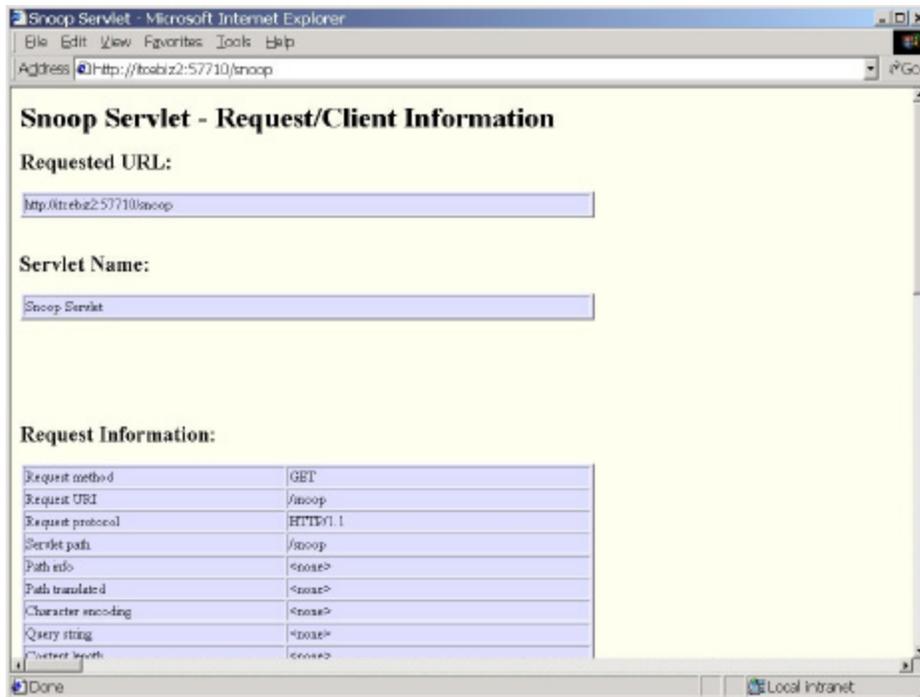
2. You should see two entries - default_host and admin_host. Select the default_host radio button option, then click the Properties button.
3. You should now see two virtual host ports defined (ie 5xx10 & 60xx). The port 60xx is for your Apache HTTP server. The port ending in 10 is your WAS Express internal HTTP server port. This is the port you will use to test your application server in the next task.

Note: If your Apache HTTP server port is not listed or is incorrect, you will need to make the appropriate modifications within the default_host virtual host setting. Contact your instructor if you run into difficulties.

4. Open up another web browser session on your workstation (keep the current console session active). Go to the following URL to test your application server instance:

<http://server:5xx10/snoop> (where server is the iSeries host or TCP/IP address and 5xx10 is the WAS internal HTTP server port you saw in the previous task)

5. If all goes well, you should see the results of the 'snoop' servlet, indicating that your WAS Express instance is setup and operating correctly.

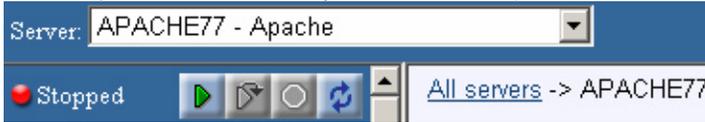


Your next step is to run the same application, instead using your Apache HTTP server instance.

3. Test your instance via the Apache HTTP server

In this step you will test your Express instance using the Apache HTTP server you created earlier, and the sample application you installed in step 1. This will determine if the linkage between your Apache HTTP server and WAS Express application server instances is setup and operating correctly.

- __ 1. Go to the HTTP Administration console and click on the link for your HTTP server instance (ie Apachexx, where xx is your team number).



- __ 2. If your server is not running, start it. If it is already running, restart it.

Note: You need to restart the HTTP server in order for the WAS Express plugin code to be activated.

- __ 3. You can use the same web browser session you used in step 2 to test your instance with the WAS Express internal HTTP server.
- __ 4. Go to the following URL to test your application server instance:

`http://server:60xx/snoop` (where server is the iSeries host or TCP/IP address and 60xx is the port for your Apache HTTP server)

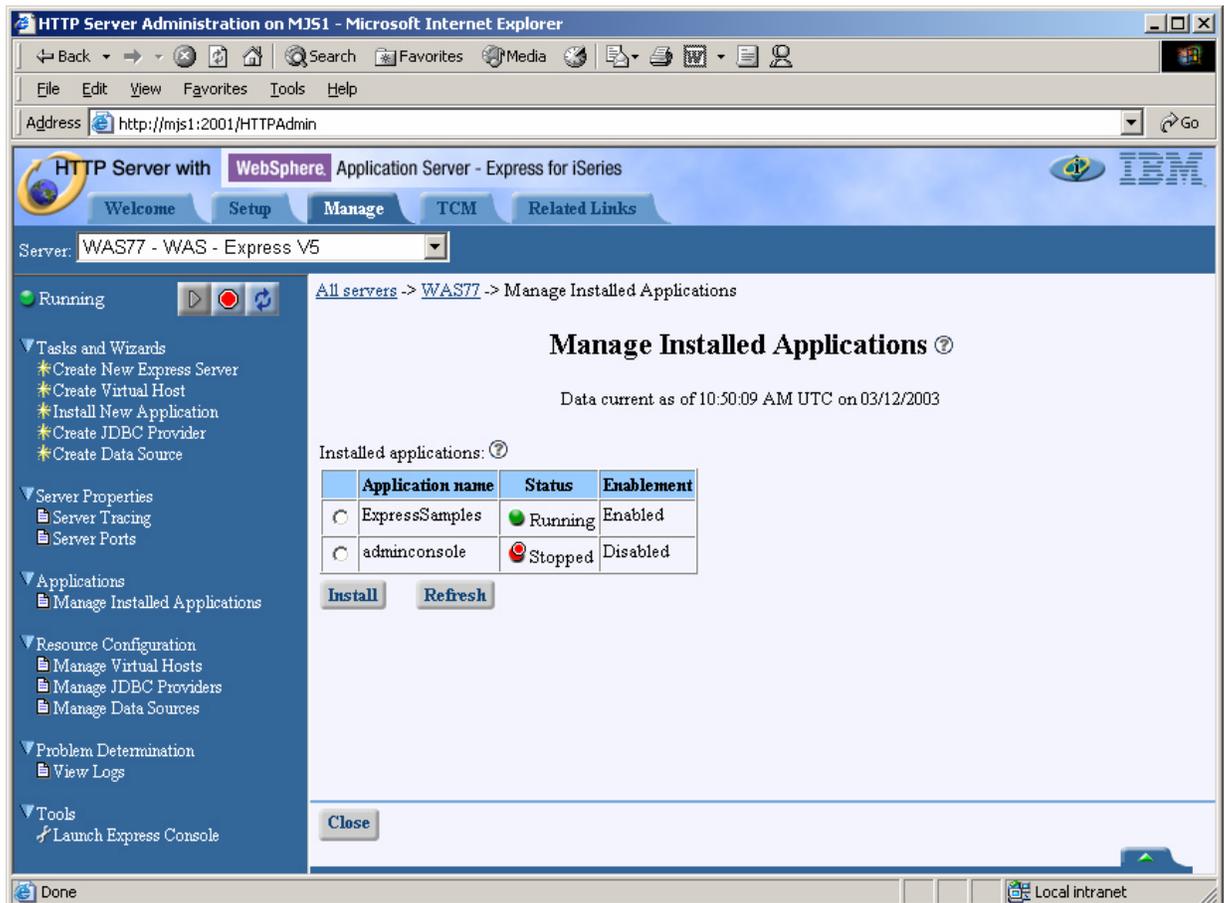
- __ 5. If all goes well, you should see the results of the 'snoop' servlet, indicating that your WAS Express instance is setup and operating correctly.

This concludes the lab exercise. There are optional steps below. Continue with the optional steps if you have completed steps 1 -3 in under 45 minutes.

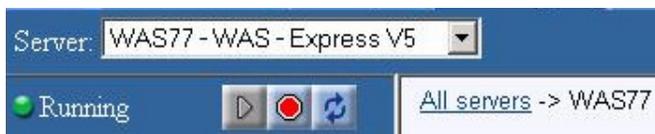
4. Familiarize yourself with the integrated WAS Express administrative console (Optional Step)

In this step you will look at additional administrative capabilities within the integrated console application.

- ___ 1. Select your WASxx WebSphere Express Instance from the Server Dropdown.
- ___ 2. At the Express configuration console, click the Manage Installed Applications option under the Applications category.
- ___ 3. Notice the installed applications and their status. Select the ExpressSamples radio button.



- ___ 4. Note the additional options for stopping the application or viewing the properties. Click on the Properties button.
- ___ 5. You should now see an Application Properties page with two tabs - General & Virtual Host Mapped to Web Modules. In the General tab, note the location of the installed application.



- ___ 6. Click on the Virtual Host Mapped to Web Modules tab.
- ___ 7. Notice that there is one web module. Select the radio button next to the web module name.
- ___ 8. Notice that you can now assign a different virtual host to this web module.

All servers -> WAS77 -> Manage Installed Applications -> Application Properties

Application Properties ?

General | **Virtual Host Mapped to Web Modules**

Web modules and corresponding virtual hosts for application "ExpressSamples": ?

	Web module	Virtual host	Context root
<input checked="" type="radio"/>	Express Web Samples	default_host	/

default_host
 admin_host

- ___ 9. Ensure the virtual host remains default_host and then click the Cancel button. You may see a popup window asking you to confirm that you will be exiting the form and that any changes will be lost. Click the OK button.
- ___ 10. At the Express configuration console, click the Server Ports option under the Server Properties category.

The screenshot shows the 'Server Ports' configuration page in the HTTP Server Administration console. The page title is 'Server Ports'. Below the title, there is a table titled 'Services and their associated ports' with the following data:

Service name	Port
Admin	57711
Admin	57712
HTTP transport	57710
HTTP transport	57711
HTTP transport	57712
JMX SOAP connector	57706
Name service	57701

At the bottom of the table, there is a 'Clear' button.

- ___ 11. You should see a table listing several services and their associated TCP/IP ports. Notice the two Admin service ports. There are also HTTP transport services for these ports also. This is for the full function browser console. The first port is for HTTP (nonsecure), the second port is HTTPS (secure).
- ___ 12. You should also see the port for your internal WAS Express HTTP server, and a few others.

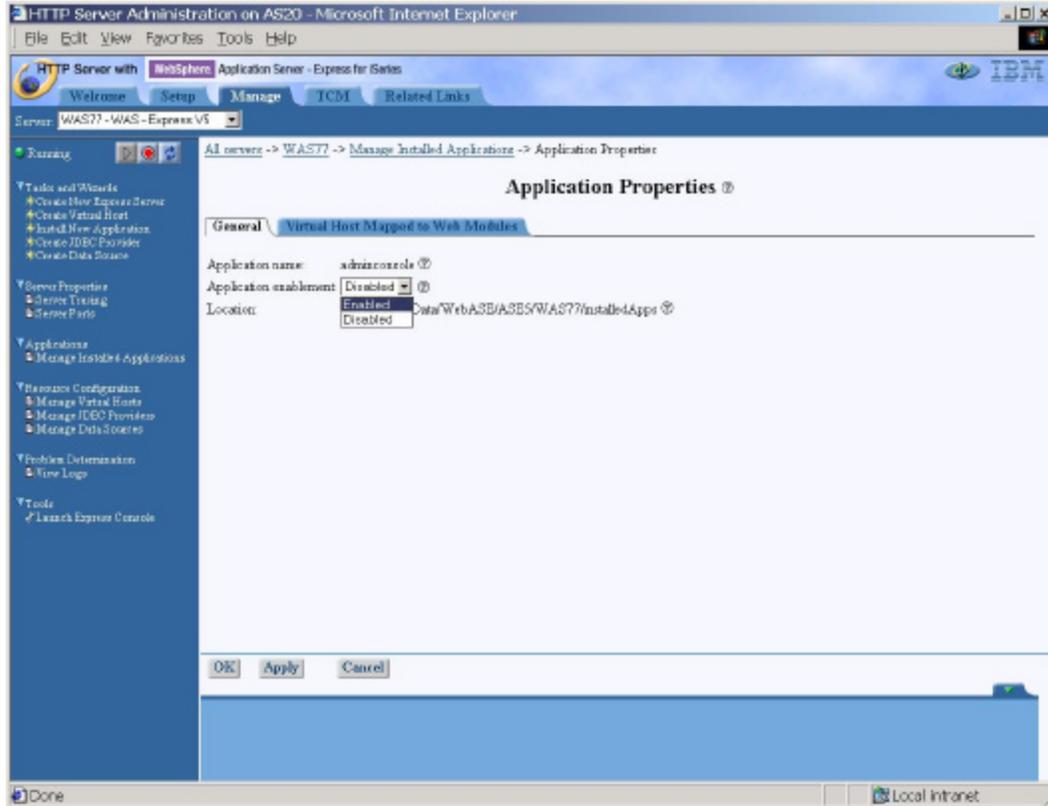
Your next step is to enable the full function administrative console for your Express instance. This step is necessary in order to provide full access to all of the available configuration options. Here are a number of functions that require the full function administrative console:

- ✍ Configuring JDBC providers & datasources that support applications developed with WebSphere Studio Version 4
- ✍ Configuring application level security
- ✍ Configuring advanced JVM runtime parameters such as classpath settings and language encoding

5. Activate the full function WAS Express administrative console

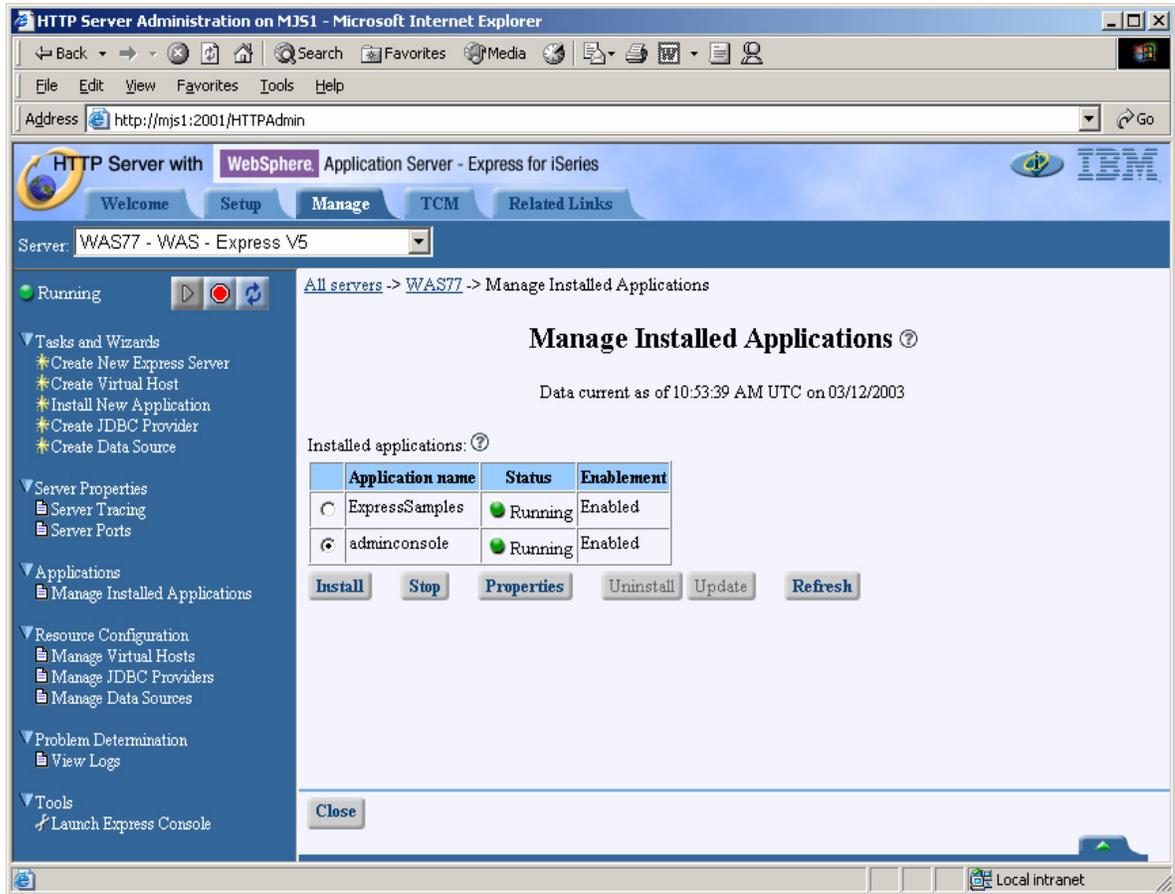
In this step you will enable the WAS Express full function administrative console. The browser based HTTP administration server you have been using thus far is typically adequate for all but the most complex WAS Express administrative tasks. By default, it is disabled. In this step you will enable the full function administrative console to provide advanced capabilities necessary to support subsequent lab exercises in this workshop.

- ___ 1. At the Express configuration console, click the Manage Installed Applications option under the Applications category.
- ___ 2. Notice the adminconsole application is stopped and in a disabled status. Select the adminconsole application radio button.
- ___ 3. Notice that there are additional option buttons that appear. Click the Properties button.
- ___ 4. The next screen should show an Application Enablement list box indicating Disabled, plus the OS/400 IFS location of the full function console application. Select the Enabled option, then click the OK button.



- ___ 5. It may take a few seconds for the application to become enabled. You should now be at the Manage Installed Applications screen.
- ___ 6. The adminconsole application should now be Enabled.
- ___ 7. Click the Start button.

- __ 8. Depending on the size of the iSeries server used in the class and how many other students are doing the lab, it may take a few seconds for your console application to start. Eventually you should see the status change to Running, as shown in the next diagram.

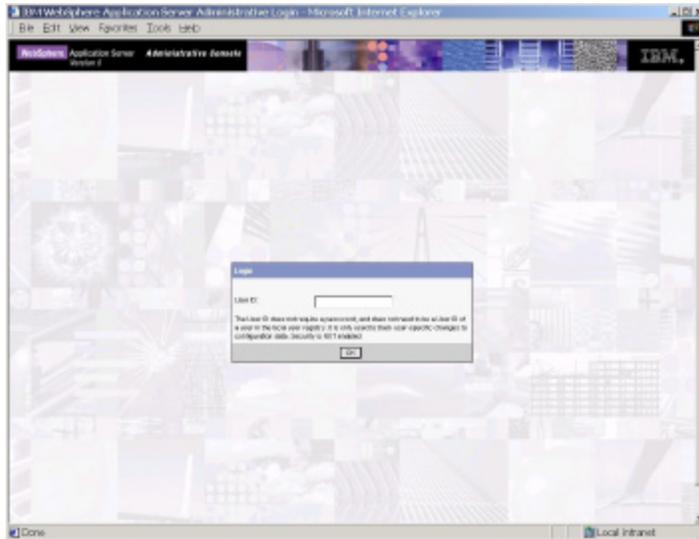


- __ 9. Click on Launch Express Console under Tools
- __ 10. You should see another browser window pop up, taking you to the full function administrative console application.

6. Using the Express Console to modify JVM settings.

Your next step is to enable your application server to support multiple language (UTF-8) encoding. This step is necessary in order to support applications built with the IBM WebFacing tool and J2EE 1.2. J2EE 1.3 has automatic client encoding detection so this step is not required for this lab. The purpose is to introduce the student to the Websphere Application Server Express V5.0 Console.

Depending on the size of the iSeries server used in the class and how many other students are doing the lab, it may take a few seconds for your console application to appear. Eventually you should see the console logon screen.



1. Enter your iSeries userid and click the OK button.

- __ 2. The first time the administrative console application is run, it will take a moment or two for it to come up. Please be patient. You should eventually see the console 'home page', as shown in the next diagram.

- __ 3. Expand Applications by clicking on the button and then click on your WebSphere Express Application Server 5.0 for iSeries instance (WASXX).

- __ 4. Click on your Express instance name in the Application Servers window.

5. Scroll down the window and click Process Definition.

Configuration Option	Description
View Container	Specify thread pool and dynamic cache settings for the container. Also, specify session manager settings such as persistence and tuning parameters, and HTTP transport settings.
Logging and Tracing	Specify Logging and Trace settings for this server.
ORB Service	Specify settings for the Object Request Broker Service.
Custom Properties	Additional custom properties for this runtime component. Some components may make use of custom configuration properties which can be defined here.
Diagnostic Trace Service	View and modify the properties of the diagnostic trace service.
Debugging Service	Specify settings for the debugging service, to be used in conjunction with a workspace debugging client application.
IBM Service Logs	Configure the IBM service log, also known as the activity log.
Server Components	Additional runtime components which are configurable.
Process Definition	A process definition defines the command line information necessary to start/initialize a process.

6. Click on Java Virtual Machine.

Configuration

General Properties

Working directory:

Apply OK Reset Cancel

Additional Properties

[Java Virtual Machine](#): Advanced Java virtual machine settings.

[Process Execution](#): A set of properties that control how the operating system permissions, Umask, process priority.

7. This is where you can change JVM settings like classpath, heap size, and Generic JVM arguments. Click in the Initial Heap Size field and change the value to 128. This will have little impact but serves for experience. After changing the value click the Apply button at the bottom of the screen.

8. After clicking Apply you will be prompted to save your configuration. Do this by clicking on the save link in the Message(s) and then the Save button on the next screen. All changes need to be saved this way in order to take affect. Some changes like the one you just made need the server to be restarted to take effect. We do not need to do this right now.

Message(s)

⚠ Changes have been made to your local configuration. Click [Save](#) to apply changes to the master configuration.
 ⓘ The server may need to be restarted for these changes to take effect.

[Application Servers](#) > [WAS76](#) > [Process Definition](#) >

Java Virtual Machine

Advanced Java virtual machine settings. ⓘ

Configuration

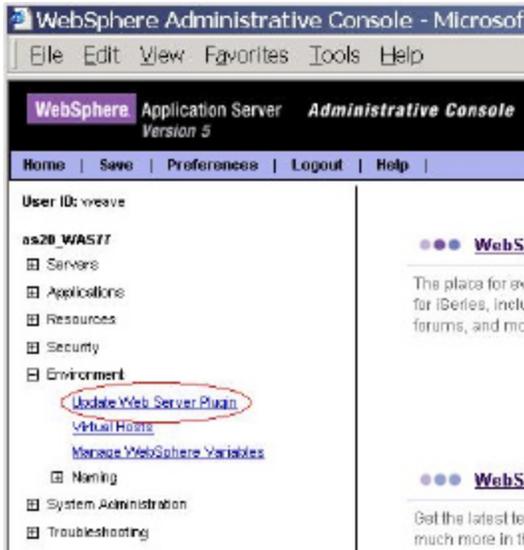
7. Regenerating the HTTP server plugin

Regenerate the HTTP server plugin from the full function administrative console

The WAS Express integrated console application will automatically regenerate the HTTP Server plugin file for events such as installing a new application. The full function administrative console you used in step 6 to set the UTF-8

encoding does not automatically regenerate the plugin. In this step you will learn how to manually regenerate the HTTP server plugin within the full function administrative console.

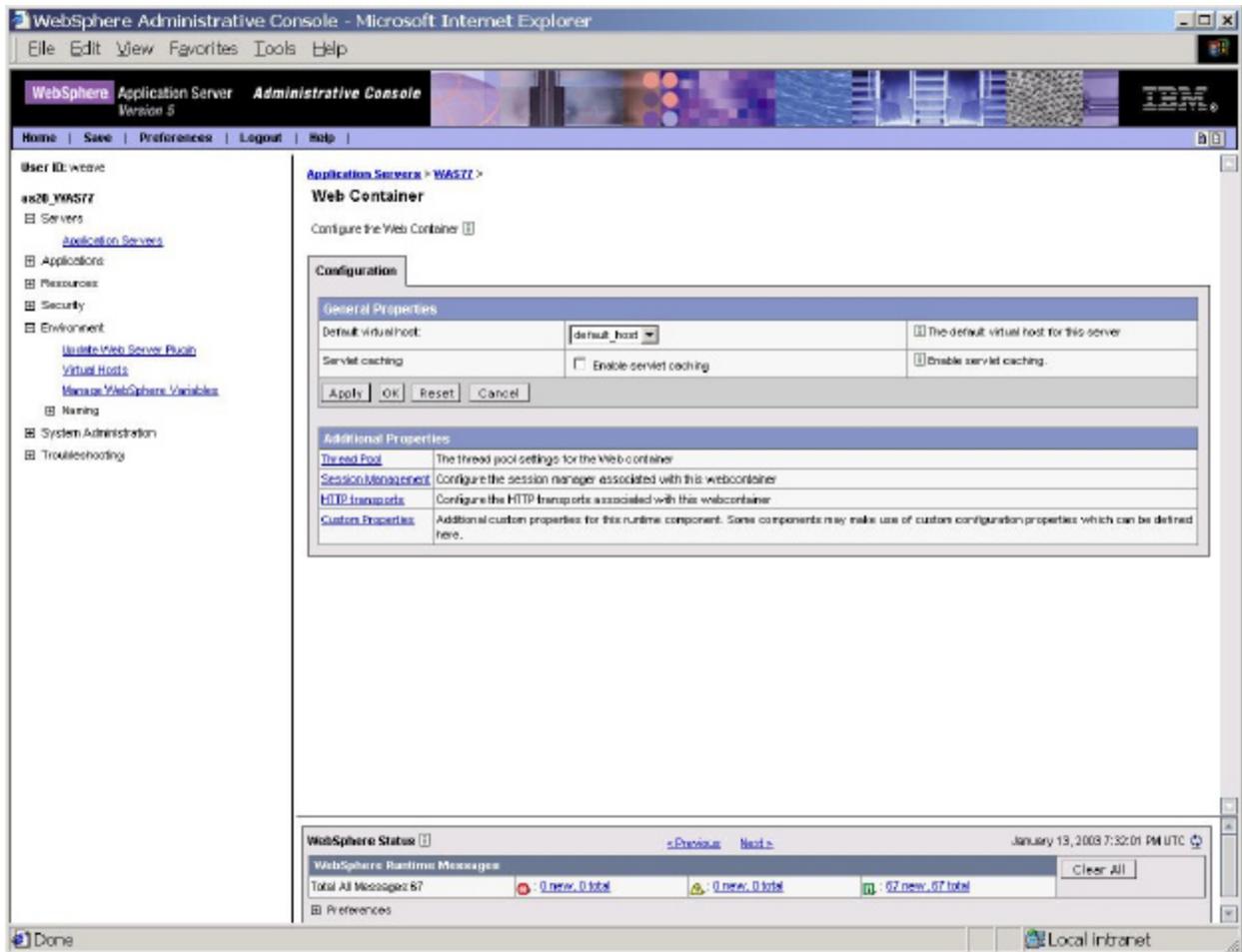
- __ 1. If you still have the full function console window open from step 6, use that session. Otherwise, from the integrated console application, Click on the Launch Express Console option under the Tools category.
- __ 2. You should see another browser window pop up, taking you to the full function administrative console application.
- __ 3. Enter your iSeries userid and click the OK button.
- __ 4. The first time the administrative console application is run, it will take a moment or two for it to come up. Please be patient. You should eventually see the console 'home page'.
- __ 5. Under the server name, click the Environment option and you should see an Update Web Server Plugin option.



- __ 6. Click on the Update Web Server Plugin link. In a moment or so you should see the Update web server plugin configuration screen.
- __ 7. Click on the OK button to manually regenerate the plugin. You should see a confirmation message at the top of the window indicating that the task was successful.



- __ 8. Click on the View or download the current web server plugin configuration file link.
- __ 9. Note that the plugin file is in XML (eXtensivle Markup Language). Also, note the TCP/IP port settings for the WAS Express internal HTTP server task and the external Apache HTTP server task.
- __ 10. Select the Servers category, then the Application Servers link, then the Web Container property.



- __ 11. View the HTTP Transports property. Note that there are ports defined for the WAS Express internal HTTP server, and the two ports for the full function administrative console.
- __ 12. If you have time, feel free to browse thru some of the other categories. **DO NOT MAKE ANY CHANGES AT THIS TIME!**
- __ 13. When you have finished browsing thru the administrative console options, ensure you logout of the session.

8. View the iSeries job information (Optional Step) (Developer Works Live: Skip This Step)

In the preliminary step at the beginning of the lab you observed that the OS/400 QASE5 subsystem was operational prior to creating your WAS instance. In this step you will view the OS/400 job log information.

- ___ 1. Sign on to a 5250 session on the iSeries server being used for this class. At the command line, enter WRKACTJOB and press enter.
- ___ 2. Scroll thru the job activity until you find subsystem QASE5.
- ___ 3. Locate your particular server job (ie WASXX, where XX is your team number) and choose option 5 (work with job).
- ___ 4. Select option 10 to work with the job log. Press the F10 key to view the detailed job information.
- ___ 5. Locate the message "WebSphere application server *yourservername* ready."
- ___ 6. Place the cursor on this message line and press the F10 key to display the detailed message.
- ___ 7. The message should state which port or ports that administrative requests can be handled.
- ___ 8. Question: Which port(s) are listed?
 - ___ all ports the server is listening on
 - ___ only the secure and nonsecured full function administrative console ports
 - ___ only the nonsecured full function administrative console port

9. View the iSeries job information (Optional Step)

- ___ 1. At the Express configuration console, click the View Logs option under the Problem Determination category.
- ___ 2. Note the 4 different log files and their location in the OS/400 IFS.
- ___ 3. Select the SystemOut.log file and press the View button.
- ___ 4. A new window should pop up, showing you the log file contents.
- ___ 5. Use the log file to answer the following questions.

Hint: Scroll to the bottom of the listing, then scroll upwards to find the last application server startup section. Here is an example:

```

File View of /QIBM/UserData/WebASE/ASE5/WAS77/logs/WAS77/SystemOut.log - Microsoft Internet Explorer
File Edit View Favorites Tools Help

***** Start Display Current Environment *****
WebSphere Platform 5.0 (BASE 5.0.0 s0245.03) [EXPRES8 5.0.0 s0245.03] running with process name as20_WAS77/as20_WAS77.WAS77 and process
Host Operating System is OS/400, version V5R2M0
Java version = 1.3.1, Java Compiler = j1co_de, Java VM name = Classic VM
was.install.root = /QIBM/ProdData/WebASE/ASE5
user.install.root = /QIBM/UserData/WebASE/ASE5/WAS77
Java Home = /QIBM/ProdData/Java00/J0K13
ws_ext.dirs = /QIBM/ProdData/WebASE/ASE5/java/tools:/QIBM/UserData/WebASE/ASE5/WAS77/classes:/QIBM/ProdData/WebASE/ASE5/classes:/QIBM/Pro
Classpath = /QIBM/UserData/WebASE/ASE5/WAS77/properties:/QIBM/ProdData/WebASE/ASE5/properties:/QIBM/ProdData/WebASE/ASE5/lib/boottap.jar
Java Library path = /Q8Y8.LIB/TE2CMD8.LIB/Q8Y8.LIB/Q8Y8.LIB/Q8Y8.LIB/QTEMP.LIB/Q8Y8.LIB/Q8Y8.LIB/PPREXP.LIB
***** End Display Current Environment *****

[1/13/03 14:56:53:487 UTC] 34759627 ManagerAdmin I TRAS0019I: The startup trace state is *all=disabled.
[1/13/03 14:56:59:455 UTC] 34759627 AdminInitiali A ADMN0015I: AdminService initialized
[1/13/03 14:57:09:755 UTC] 34759627 Configuration A SECJ0215I: Successfully set JAAS login provider configuration class to com.ibm.ws.sec
[1/13/03 14:57:10:209 UTC] 34759627 SecurityDM I SECJ0231I: The Security component's PFDC Diagnostic Module com.ibm.ws.security.core.S
[1/13/03 14:57:10:544 UTC] 34759627 SecurityComp I SECJ0309I: Java 2 Security is disabled.
[1/13/03 14:57:10:766 UTC] 34759627 SecurityComp I SECJ0212I: WCCM JAAS configuration information successfully pushed to login provider
[1/13/03 14:57:10:977 UTC] 34759627 SecurityComp I SECJ0240I: Security service initialization completed successfully
[1/13/03 14:57:44:610 UTC] 34759627 JMSSoapAdapte A ADMN0013I: SOAP connector available at port 57706
[1/13/03 14:57:44:697 UTC] 34759627 SecurityComp I SECJ0243I: Security service started successfully
[1/13/03 14:57:44:714 UTC] 34759627 SecurityComp I SECJ0210I: Security enabled false
[1/13/03 14:57:51:040 UTC] 34759627 ResourceMngr I WSVR0049I: Binding Default DataSource as DefaultDataSource
[1/13/03 14:57:53:159 UTC] 34759627 ResourceMngr I WSVR0049I: Binding Default_CF as eis/DefaultDataSource_CNF
[1/13/03 14:58:06:639 UTC] 34759627 ApplicationMg A WSVR0200I: Starting application: adminconsole
[1/13/03 14:58:08:122 UTC] 34759627 WebContainer A SRVE0161I: IBM WebSphere Application Server - Web Container. Copyright IBM Corp. 199
[1/13/03 14:58:08:369 UTC] 34759627 WebContainer A SRVE0162I: Servlet Specification Level: 2.3
[1/13/03 14:58:08:412 UTC] 34759627 WebContainer A SRVE0163I: Supported JSP Specification Level: 1.2
[1/13/03 14:58:09:341 UTC] 34759627 WebContainer A SRVE0169I: Loading Web Module: adminconsole.
[1/13/03 14:58:11:023 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: JSP 1.2 Processor: init
[1/13/03 14:58:11:800 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: SimpleFileServlet: init
[1/13/03 14:58:11:961 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: InvokerServlet: init
[1/13/03 14:58:12:136 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: Validator: init
[1/13/03 14:58:12:176 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: EventInitializer: init
[1/13/03 14:58:12:536 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: action: init
[1/13/03 14:58:12:580 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: action: Tiles definition factory lo
[1/13/03 14:58:12:525 UTC] 34759627 WebGroup I SRVE0180I: [adminconsole] [/admin] [Servlet.LOG]: SecureCleanup: init
[1/13/03 14:58:13:266 UTC] 34759627 ApplicationMg A WSVR0221I: Application started: adminconsole
[1/13/03 14:58:13:340 UTC] 34759627 ApplicationMg A WSVR0200I: Starting application: DB2 Web Services Samples
[1/13/03 14:58:13:553 UTC] 34759627 WebContainer A SRVE0169I: Loading Web Module: DB2 Web Services Samples
[1/13/03 14:58:13:704 UTC] 34759627 WebGroup I SRVE0180I: [DB2 Web Services Samples] [/services] [Servlet.LOG]: JSP 1.2 Processor: i
[1/13/03 14:58:13:838 UTC] 34759627 WebGroup I SRVE0180I: [DB2 Web Services Samples] [/services] [Servlet.LOG]: SimpleFileServlet: i
[1/13/03 14:58:13:827 UTC] 34759627 WebGroup I SRVE0180I: [DB2 Web Services Samples] [/services] [Servlet.LOG]: InvokerServlet: init
[1/13/03 14:58:14:254 UTC] 34759627 WebGroup I SRVE0180I: [DB2 Web Services Samples] [/services] [Servlet.LOG]: db2_watson_db: init
[1/13/03 14:58:14:383 UTC] 34759627 WebGroup I SRVE0180I: [DB2 Web Services Samples] [/services] [Servlet.LOG]: db2_watson_db: init

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Questions

Java 2 security is ____enabled ____disabled

What service is listening on port 5xx01? _____

Which applications have been started? _____

Which port is utilizing the HTTPS transport? _____

What servlet & JSP versions does your application server support? ____servlet ____JSP

The answers are on the next page.

Answers

Java 2 security is ____enabled _x__disabled

What service is listening on port 5xx01? __RMI Connector_____

Which applications have been started? ____adminconsole & ExpressSamples_____

Which port is utilizing the HTTPS transport? __5xx12 (the secure admin console port)

What servlet & JSP versions does your application server support? 2.3_servlet 1.2_JSP