Configuring Microsoft IIS 5.0 and Tomcat 4.0.4 for Analyzer Fix Pack 2

This document explains how to configure Microsoft IIS 5.0 and Tomcat 4.0.4 so that they work together. The following instructions are based on the Windows 2000 Professional SP3 platform. The manual configuration steps and files are referenced from R. Barr and A. Conrad (http://www.getnet.net/~rbarr/TomcatOnIIS/default.htm).

NOTE: All Path information listed in this document is pointing to default paths taken during Installation of all products (including Analyzer Windows Client which is covered in general in a different document regarding how to install Analyzer Fix Pack 2)

Overview of steps

- 1. Download the file iis_tomcat.zip
- 2. Extract the zip file into C:\Program Files\Apache Tomcat 4.0
- 3. Update the Windows Registry by double clicking the file called isapi_redirector.reg
- 4. Create a new Virtual Directory called "jakarta" in IIS
- 5. Add a new ISAPI Filter called "jakarta" within IIS
- 6. Stop and restart IIS

The file paths specified in this document refer to the default paths that you can select during the installation of a given product. If you custom file paths instead of the defaults provided during the Tomcat installation and Analyzer Windows Client installation, you need to change the workers.properties file and uriworkermap.properties file as noted. However, if you use the default file paths, the updated workers.properties file and uriworkermap.properties file been are included in the iis_tomcat.zip file and you do not need to make additional changes to these files.

Prerequisites

- 1. Ensure that IIS 5.0 is installed and running on Port 80 of your Windows server. You can verify that IIS is correctly running by opening http://hostname in a Web browser.
- Set the JAVA_HOME environmental variable as a system variable so that it points to the file path that the Analyzer Windows Client is installed to (the default file path is: C:\hyperion\analyzer\jdk).
- 3. Ensure that Tomcat 4.0.4 is installed and running on the default Port 8080. You can verify that Tomcat is correctly running by opening http://hostname:8080 in a Web browser.
- 4. Ensure that the CATALINA_HOME environmental variable is set to the path that Tomcat 4.0.4 is installed to (the default file path is: C:\Program Files\Apache Tomcat 4.0).
- 5. Ensure that Tomcat 4.0.4 can serve the example Java Server Page (JSP) files. You can verify that Tomcat can serve the JPS files by opening http://localhost:8080/examples/jsp/dates/date.jsp in a Web browser.
- 6. Set the registry settings for isapi_redirector.dll and double check workers.properties file and uriworkermap.properties file for correct information as listed below.

Download iis_tomcat.zip

- Download iis_tomcat.zip from ftp://ftp.service.ibm.com/ps/products/db2olap/fixes/v81/fp2/iis_tomcat.zip. The iis_tomcat.zip file contains the following 4 files:
 - isapi_redirector.reg, which sets up the necessary information into the Windows registry
 - isapi_redirector.dll which provides the bridge between IIS and Tomcat
 - workers.properties which is a required file for ISAPI
 - uriworkermap.properties which is a required file for ISAPI
- 2. Extract iis_tomcat.zip into your CATALINA_HOME directory (default path is C:\Program Files\Apache Tomcat 4.0).

NOTE: You must extract the iis_tomcat.zip zip file into the CATALINA_HOME directory. This zip file creates necessary subdirectories and files into specific, required locations.

IIS registry file

- 1. In a text editor, open the isapi.redirector.reg registry file located in the CATALINA_HOME directory. If you did not use the default paths and settings, change the path information as necessary so that:
 - Log_file points to the CATALINA\\logs\\ iis_redirector.log (C:\\Program Files\\Apache Tomcat 4.0\\logs\\iis_redirector.log)
 - worker_file points to CATALINA\\conf\\ntiis\\workers.properties (C:\\Program Files\\Apache Tomcat 4.0\\conf\\ntiis\\workers.properties)
 - worker_mount_file points to the CATALINA\\conf\\ntiis\\uriworkermap.properties (C:\\Program Files\\Apache Tomcat 4.0\\conf\\ntiis\\uriworkermap.properties)
- 2. Save the file if you made any changes, then close the file.
- 3. Double-click the isapi.redirector.reg registry file to open it in the Registry Editor.
- 4. To view the registry values, as shown in Figure 1:
 - a. Expand the HKEY_LOCAL_MACHINE folder
 - b. Expand the Software folder.
 - c. Expand the Apache Software Foundation folder
 - d. Expand the Jakarta ISAPI Redirector folder.
 - e. Expand the 1.0 folder.

💰 Registry Editor				×
Registry Edit View Favorites Help				
	Name	Туре	Data	
HARDWARE	Default)	REG_SZ	(value not set)	
E - SAM	extension_uri	REG_SZ	/jakarta/isapi_redirector.dll	
	log_file	REG_SZ	C:\Program Files\Apache Tomcat 4.0\logs\iis_redirector.log	
DOFTWARE	bg_level	REG_SZ	emerg	
	worker_file	REG_SZ	C:\Program Files\Apache Tomcat 4.0\conf\ntiis\workers.properties	
jakarta Isapi Redirector	worker_mount_file	REG_SZ	C:\Program Files\Apache Tomcat 4.0\conf\ntiis\uriworkermap.properties	
	•			۲
My Computer/HKEY LOCAL MACHINE/SOFTW	ADE\Apache Software Eq.	ndation) lal	varta Icani Bedirector'i 1 0	

Figure 1 - The isapi.redirector.reg registry file in the Registry Editor

Editing the workers.properties file

A modified version of the workers.properties file is included in the iis_tomcat.zip file. It has been modified to include the correct values for the two values that need to be set. Figure 2 shows the portion of the workers.properties file that includes the modified workers.tomcat_home and workers.java_home values.

📕 workers.properties - Notepad		- 🗆 🗵
<u>F</u> ile <u>E</u> dit F <u>o</u> rmat <u>V</u> iew <u>H</u> elp		
# # workers.tomcat_home shoul # installed tomcat. This is # directories. # workers.tomcat_home="C:\Pro	d point to the location where you where you have your conf, webapps and lib gram Files\Apache Tomcat 4.0"	
# # workers.java_home should # you should have a bin and # workers.java_home=C:\hyperi	point to your Java installation. Normally lib directories beneath it. on\analyzer\jdk	
#		-

Figure 2- Modified workers.properties file

If you did not install IIS or Tomcat in the default directories, you need to edit the workers.properties file by completing the following steps so that the values correspond to your custom installation paths:

- 1. In a text editor, open the workers.properties file located in the CATALINA_HOME\conf\ntiis directory.
- 2. Edit the workers.tomcat_home value so that it refers to the CATALINA_HOME directory.
- 3. Edit the workers.java_home value so that it refers to the JAVA_HOME directory.

Configuring IIS

To configure IIS:

- 1. Start the Microsoft IIS Internet Services Manager.
- 2. Right-click **Default Web Site** and select **Properties**.
- 3. Click the Directory Security page.
- 4. Click the Anonymous Access and Authentication Control Edit button
- 5. Ensure that the Anonymous user is a valid Windows user and has read, write, or change privileges.
- 6. Click OK.
- 7. Right-click **Default Web Site** and select **New --> Virtual Directory**.
- 8. Enter jakarta in the **Alias** field as shown in Figure 3. The new alias name must be jakarta. Click **Next.**

irtual Directory Creation Wizard	×				
Virtual Directory Alias You must give the virtual directory a short name, or alias, for quick reference.					
Type the alias you want to use to gain acce same naming conventions that you would fo	ess to this Web virtual directory. Use the or naming a directory.				
Alias:					
jakarta					
	ß				
	< Back Next > Cancel				

Figure 3 – New alias name

9. Enter the path to the directory that contains the isapi_redirector.dll file. The default path is: C:\CATALINA_HOME\bin as shown in Figure 4. Click **Next**.

Virtual Directory Creation Wizard	×
Web Site Content Directory Where is the content you want to publish on the Web site?	(J)
Enter the path to the directory that contains the content.	
Directory:	
C:\Program Files\Apache Tomcat 4.0\bin	Browse
< Back	Cancel

Figure 4 - Directory path to the isapi_redirector.dll file

10. Ensure that the **Read** and **Execute** checkboxes are selected as shown in Figure 5. Click **Finish**.

I	Virtual Directory Creation Wizard
,	Access Permissions What access permissions do you want to set for this virtual directory?
- 1	Allow the following:
	✓ <u>R</u> ead
	Run <u>s</u> cripts (such as ASP)
	Execute (such as ISAPI applications or CGI)
	☐ <u>W</u> rite
	Erowse
:	Click Next to complete the wizard.
:	
i,	
i	< <u>B</u> ack <u>N</u> ext > Cancel

Figure 5 - Access permission settings

Adding the ISAPI filter

To add the ISAPI filter:

- 1. Right-click **Default Web Site** and select **Properties**.
- 2. Click the ISAPI Filters page.
- 3. Click Add. The Filter Properties window opens.
- 4. Enter jakarta in the Filter Name field as shown in Figure 6. The new filter name must be jakarta.

Defa	ult Web 9	Site Properti	es					<u>?</u> ×
	Directory S Web Site	ecurity H Performan	ITTP He aders ice ISAPI	Filters	stom Error Home I	s Se Directory	rver Extensio	ns nts
	Filters installed here are active for this Web site only. Filters are executed in the order listed below:							
		Status	Filter Name		Priority		Add	
	ţ	Filter Proper Filter Name: Executable:	iakarta C:\Program F	iles (Apac	he Tomca	at 4.0\bin\i: Browse	sapi_re	
	_		OK	Cano		Help		
_			ок	Cano		Apply	Hel	p

Figure 6 - ISAPI Filters page

- 5. Enter the path to the directory that contains the isapi_redirector.dll file. The default path is: C:\CATALINA_HOME\bin as shown in Figure 4. Click **OK**.
- 6. On the main page, click **Apply** and then click **OK**.
- 7. Start IIS again.
- 8. Open the ISAPI Filters page of the Default Web Site Properties window again. Ensure that the jakarta filter has a green arrow in the status column as shown in Figure 7. If the status column does not contain a green arrow, a configuration error might have occurred.
- 9. To test that the filter works, open the following URL in a Web browser: http://hostname/examples/jsp/dates/date.jsp.

efault Web !	Site Proper	ties		?)			
Directory S Web Site	ecurity Performa	HTTP Headers ance ISAPI Fi	Custom Errors	Server Extensions ory Documents			
Filters installed here are active for this Web site only. Filters are executed in the order listed below:							
	Status	Filter Name	Priority	Add			
t	1	jakarta	High	Remove			
				E dit			
+				Disable			
			R				
		ок	Cancel App	ly Help			

Figure 7 - Updated ISAPI Filters page

Editing uriworkermap.properties

To define the correct directory to the ISAPI redirector, you need to modify the uriworkermap.properties file. A modified version of the uriworkermap.properties file is included in the iis_tomcat.zip file. It has been modified to specify the correct values for the two values that need to be added. **Error! Reference source not found.** shows the portion of the workers.properties file that includes the two additional values.

If you did not install IIS or Tomcat in the default directories, you need to edit the workers.properties file by completing the following steps so that the values correspond to your custom installation paths:

- 4. In a text editor, open the uriworkermap.properties file.
- 5. Add the following two values to the list of sites to be redirected to Tomcat, where Analyzer6 Server corresponds to the context root that was used when Analyzer was installed:

/Analyzer6_Server=\$(default.worker)
/Analyzer6_Server/*=\$(default.worker)

6. Save the uriworkermap.properties file.



Figure 8 - Modified uriworkermap.properties file

After editing the original uriworkermap.properties file or replacing the original file with the modified file provided in the iis_tomcat.zip file, complete the following steps:

- 1. Start the IIS Service again to reload the ISAPI redirector.
- 2. Open the following URL in a Web browser: http://hostname/Analyzer6_Server/index.html.