



Web Server Deployment

Microsoft Internet Information Services (IIS)

Release 3.3

February 2008

Yellowfin ®
Release 3.3
Install Guide

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Yellowfin and IIS

Yellowfin can be mounted in a virtual directory off an existing IIS web server. For example, this allows for Yellowfin to operate at the location <http://mydomain.com/reporting> . Yellowfin will still run on Tomcat but is connected to IIS via a redirection connector.

Resources Required

The IIS-Tomcat connector will require the following files:

- IIS Isapi Redirection DLL (isapi_redirect.dll)
- workers.properties
- uriworkermap.properties

The Isapi_redirect.dll can be downloaded from <http://tomcat.apache.org/download-connectors.cgi>. The properties files will be provided below.

Setting up the Yellowfin Server

Yellowfin itself only requires a configuration modification. This is to enable AJP/1.3 connections when Yellowfin is started.

Modify the Yellowfin/appserver/conf/server.xml. Add the following lines to the file inside the <Service name="Catalina"> XML node.

```
<Connector port="8009"  
enableLookups="false" redirectPort="8443" debug="0"  
protocol="AJP/1.3" />
```

There will be an existing <Connector> node. This will referer to standard HTTP connections (with the port specified from the Yellowfin installation process) that are allowed to connect directly to Yellowfin. This block can be left here.

After restarting Yellowfin it will now be listening on port 8009 for AJP/1.3 connections. The port can changed to be any free TCP/IP port.

Installing the IIS-Tomcat Connector

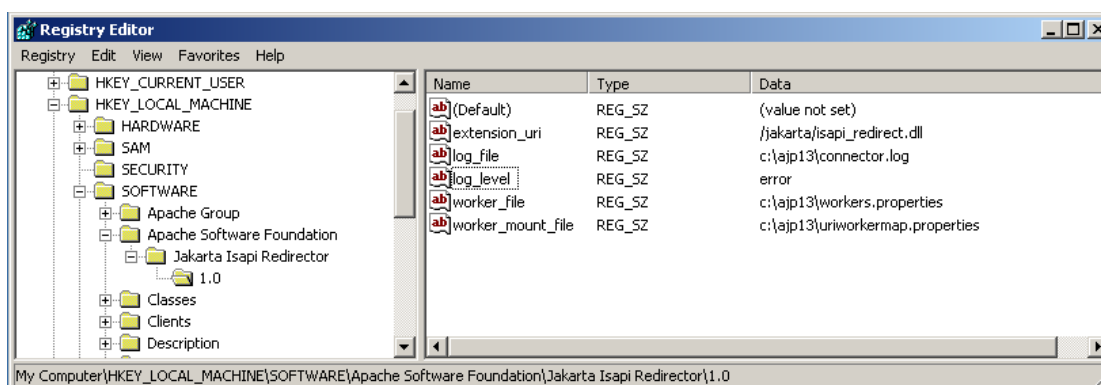
The Isapi_redirect.dll should be downloaded and placed in a directory. For the purposes of this tutorial "[c:\ajp13](#)" will be used, however this can be any directory on the filesystem.

Modifications will need to be made to the registry, using Regedit, or another registry editing application. Generate the following Registry Key if it doesn't already exist:

```
HKEY_LOCAL_MACHINE\  
SOFTWARE\  
Apache Software Foundation\  
Jakarta Isapi Redirector\  
1.0
```

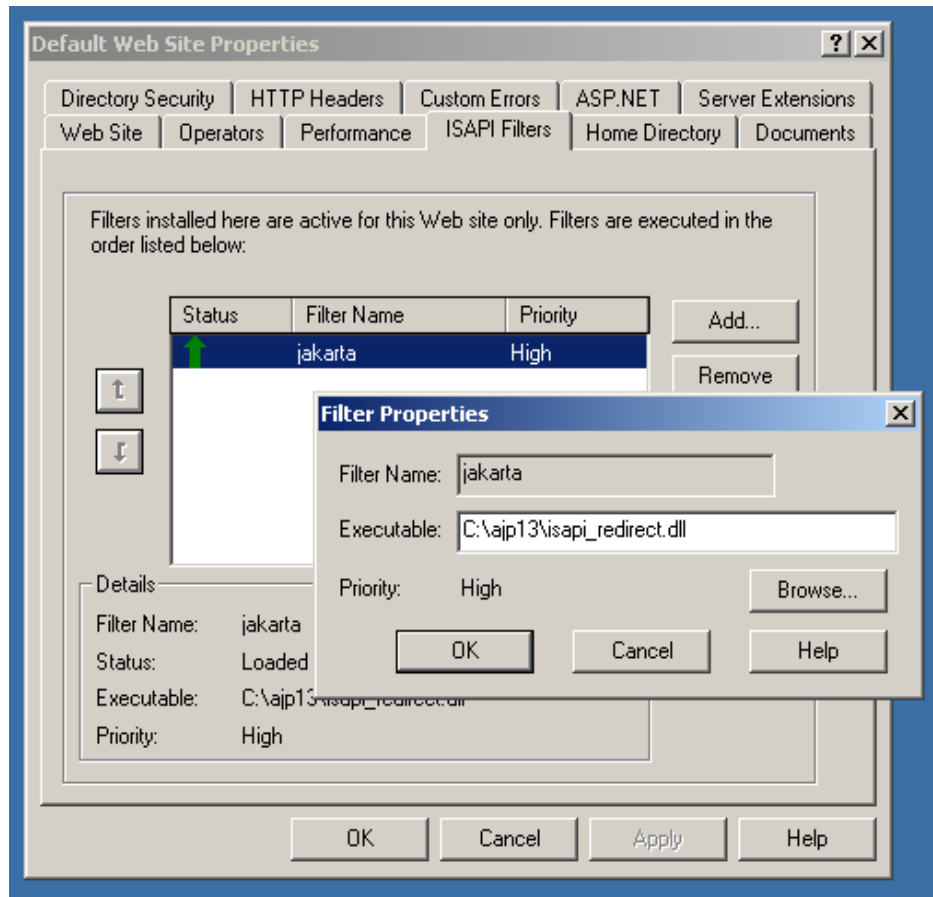
Once this registry key structure has been built, create the following String Values:

Name	Value
extension_uri	/jakarta/isapi_redirect.dll
worker_file	c:\ajp13\workers.properties
worker_mount_file	c:\ajp13\uriworkermap.properties
log_file	c:\ajp13\connector.log
log_level	error



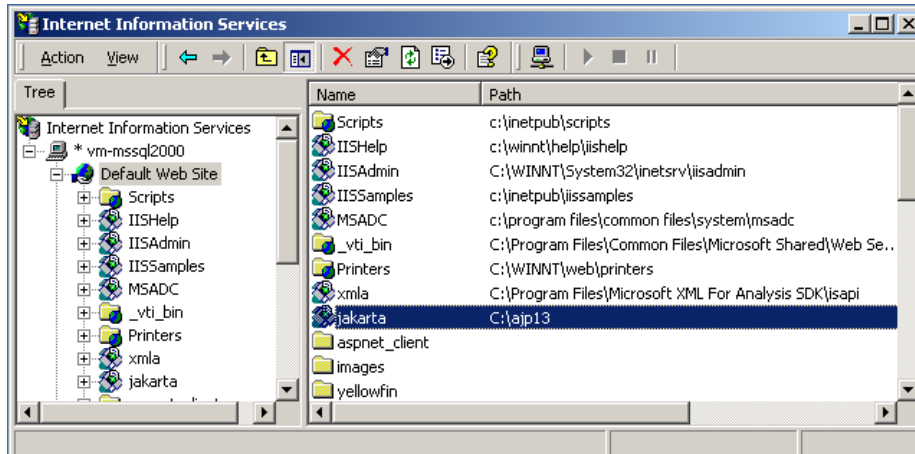
Installing the Redirection Filter

Attach a filter via the main website options dialog, on the ISAPI filters tab. Name the filter "jakarta" and select the Isapi_redirect.dll as the filter.



Creating the Virtual Directory

Create a virtual directory named “jakarta” and point this to the directory containing the Isapi_redirect.dll file. Make sure this virtual directory has execute permissions.



Defining the Workers.properties File.

The workers.properties file defines instances of tomcat that IIS can connect to. Usually there will only be one instance of Yellowfin and will require a fairly simple workers.properties file. However the workers.properties file can define multiple instances of Yellowfin when load balancing is required. The properties file must sit in the location that was defined in the registry entry. Here is a basic workers.properties file.

```
worker.list=ajp13  
worker.ajp13.port=8009  
worker.ajp13.host=localhost  
worker.ajp13.type=ajp13
```

Each worker defines a tomcat instance, or tomcat context. The worker above as been named ajp13 and it will connect to host “localhost” on port “8009”. Usually the above example will work if tomcat (Yellowfin) is residing on the same server as IIS, otherwise you will have to modify the host option.

Defining the URIWorkerMap.properties File.

The uriworkersmap.properties file defines the type of files that IIS will retrieve from Tomcat. A basic uriworkermap.properties file will contain the following:

```
/*=ajp13
```

This will forward all requests to tomcat for rendering content, including images, style and javascript requests.

IIS can serve static content from Yellowfin. This can be configured by making the ajp connection only request the JSP pages. For example:

```
/*.jsp=ajp13
```

```
/*.i4=ajp13
```

This will only request jsp pages and i4 actions. The css, javascript and images directories from Yellowfin will have to be copied into the same path in the IIS directory.

Debugging Information

Once the redirection filter and both the properties files configured, IIS should redirect requests to Yellowfin.

If there are issues with the connector, and it does not redirect as expected, the connector log file can be interrogated. This is the log file that was configured in the registry, in our example it was c:\ajp13\connector.log.

The IIS log files can also be viewed. These are usually located at C:\WINNT\system32\LogFiles\W3SVC1

Yellowfin Context

The above Tomcat-IIS example will mount Yellowfin directly onto the base domain of a IIS website. For instance, Yellowfin will be accessible by http://mydomain.com/index_mi.jsp

If there is a need to mount Yellowfin in a virtual directory, such as <http://mydomain.com/reporting> then the Yellowfin tomcat context will need to be modified to “reporting” rather than using the Tomcat Root directory..

To modify Yellowfin's context:

- In Yellowfin/appserver/conf/Catalina/localhost there is a ROOT.xml file. Rename this to the context you wish to use. For example reporting.xml.
- In Yellowfin/appserver/webapps this is a ROOT directory. Rename this to the context name. (“reporting” in our example)
- There will be a line in Yellowfin/appserver/reporting/WEB-INF/web.xml. The line contains a reference to the ROOT directory, change this to the context name (“reporting”). The line will be similar to:

```
<!ENTITY jsps SYSTEM  
"file://applications/yellowfin//appserver/webapps/ROOT/WEB-INF/web-  
jsps.xml">
```

Once Yellowfin has restarted you will be able to access this via the “reporting” directory. When connecting directly to Yellowfin, the URL will be <http://yellowfin-server:port/reporting>.

If Yellowfin has been successfully mounted on IIS, you should be able to access Yellowfin via <http://mydomain.com/reporting>

You can modify the uriworkersmap.properties to restrict this to only the reporting context. This will stop the filter from checking every HTTP request, and only forward links that reference the /reporting context.

uriworkermap.properties:

```
/reporting/*=ajp13
```


Useful Links

There are many How-To type documents on the internet that outline this process. Documentation may be available that is more relevant to the version of IIS that you are using. Usually searching for "IIS tomcat connector" will return relevant results.

http://tomcat.apache.org/connectors-doc/webserver_howto/iis.html

<http://www.tonotono.net/ua/nph-.cgi/000000A/http/www.onjava.com/pub/a/onjava/2002/12/18/tomcat.html>

http://wiki.apache.org/tomcat/Tomcat_and_IIS_Howto

<http://www.roktech.net/devblog/enclosures/iis6-Tomcat5-JK2.pdf>