



Journyx Technical Note

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Subject: Configuring external Apache with Journyx Timesheet and Journyx Work Optimizer

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In some environments it may be necessary to configure the Timesheet or Optimizer product to operate with an existing Apache Web Server installation.

This document provides guidelines for this process. Journyx recommends that only personnel with extensive experience in Apache administration attempt this procedure. This version of this document applies to Version 4.5 of Journyx Timesheet *only*.

Background Information

Timesheet and Optimizer ship with Apache HTTP Server; in the case of Timesheet versions based on 4.5 this is Apache 1.3.6. In order to achieve best performance, Journyx requires that the Apache used as the Web Server front-end for Timesheet support the mod_python module. Thus the following requirements on the external (target) Apache must be met:

- `httpd -v` must list the version as 1.3 or higher, but not 2.0 or higher.
- `httpd -l` must list `mod_python.c` as one of the compiled modules.
- The user that executes the external Apache must have permissions to read all files owned by the Timesheet install user in the Timesheet install directories. A good way to do this is to make sure they are in the same group and set appropriate group permissions for the files.

If `mod_python` is not listed as one of the supported modules, then the `httpd` must be recompiled with that capability included. In the event that the target `httpd` needs to be recompiled, the Python executable found in the Timesheet install must be found in the compiling user's path. This is found in the directory `pd/Linux/python/bin`. (If you are not installing on Linux, the 'Linux' component in the path should be one of 'AIX' or 'SunOS' or 'FreeBSD')

Complete instructions on compiling Apache are beyond the scope of this document. For instructions on compiling Apache with `mod_python` support see the following websites.

- <http://www.apache.org/>
- <http://www.modpython.org/>

Configuration Process

After the mod_python functionality has been confirmed for the target Apache httpd, the following steps may be used to install a Timesheet instance referencing the target Apache. For this example we suppose that the installing user is 'tsadmin'. Further, we suppose that the installation is happening in /u/tsadmin/jt (as opposed to the default of /u/tsadmin/jtime/jtime).

Please Note: The user "tsadmin" must exist, and should be in a group such that all files installed by that user can be accessed by the user under whom the target Apache instance runs.

1. Logged in as user "tsadmin", un-zip and un-tar the installation image into the tsadmin home directory. Then cd to jtime and enter this command

```
./jtinstall --externalapache /tsadmin/
```

2. After the command has completed, you will need to add the following lines to apache's httpd.conf. Note the full path shown here as /home/tsadmin/jt/pi... may have to be modified to reflect the path to the actual install on your system.

```
#####  
# configuration for tsadmin (4.5 site)  
#####  
PassEnv PGDAT  
PassEnv PYTHONPATH  
PassEnv WTHOME  
PassEnv PATH  
AddHandler python-py pyc inc  
PythonInterpPerDirectory On  
  
Alias /tsadmin/icons/  
/home/tsadmin/jt/pi/apache/serverroot/htdocs/image/  
Alias /tsadmin/jtime  
/home/tsadmin/jt/pi/apache/serverroot/htdocs/  
ScriptAlias /tsadmin/jtcgi/  
/home/tsadmin/jt/pi/apache/serverroot/cgi-bin/  
  
<Directory /home/tsadmin/jt/pi/apache/serverroot/cgi-bin>  
    AddHandler python-program .py  
    AddHandler python-program .pyc  
    AddHandler python-program .python  
    PythonHandler dopy  
</Directory>  
  
<Directory /home/tsadmin/jt/pi/apache/serverroot/htdocs>  
    Action python-py /tsadmin/jtcgi/dopy.py  
</Directory>
```

3. After adding those directives to the `httpd.conf` file then you will have to stop and restart Apache. Before restarting Apache, you will need to make sure the `PYTHONPATH` environment variable is set properly for the user that runs Apache. You can take the setting and place it in the appropriate rc file (`.bashrc`, `.profile`, etc.) to make sure that this is always set when starting Apache. A good way to tell what the variable should be set to is to source the Timesheet setup file then echo the variable. Do this as the installing user.

```
cd jt/pi/bin
. ./setup
echo $PYTHONPATH
```

4. When you have that variable in the Apache user's environment, stop and restart `httpd`.

5. Finally, stop and restart the installation by doing the following.

```
cd ~/jt/pi/bin
. ./setup
wstop;wstart
```

Check Timesheet to see if everything is working. If Apache cannot find the site or modules then please review the Apache configuration. If the site is found, but returns no HTML, please check for permissions problems between the Apache user and the files in the Timesheet install directory.