


























**PAW Web Filter Version 0.30 (release)**

This Software is Open Source

*<http://paw-project.sourceforge.net>*

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# What is PAW

PAW (pro-active webfilter) is an Open-Source filtering HTTP proxy based on the Brazil Framework provided as a Open-Source Project by SUN. Because the Brazil Framework and PAW are written in Java the software is highly portable.

PAW allows for easy plugin of Handlers (filter outgoing requests) and Filters (filter incoming data - the HTML response) and a GUI for end users. All the configuration files are in XML-Format and thus easy to modify (even without the GUI).

It's aim is to provide an easy to use interface for end users and to be easily extendable by developers. PAW consists of the followig components:

- PAW Server which implements the filtering HTTP Proxy.  
For Installation instructions see [Starting the server](#).
- PAW GUI for easy PAW Server administration.  
For Installation instructions see [Starting the GUI](#).

PAW is published under a [modified Apache License](#) to be as open as possible.

Internally the following Java components are used:

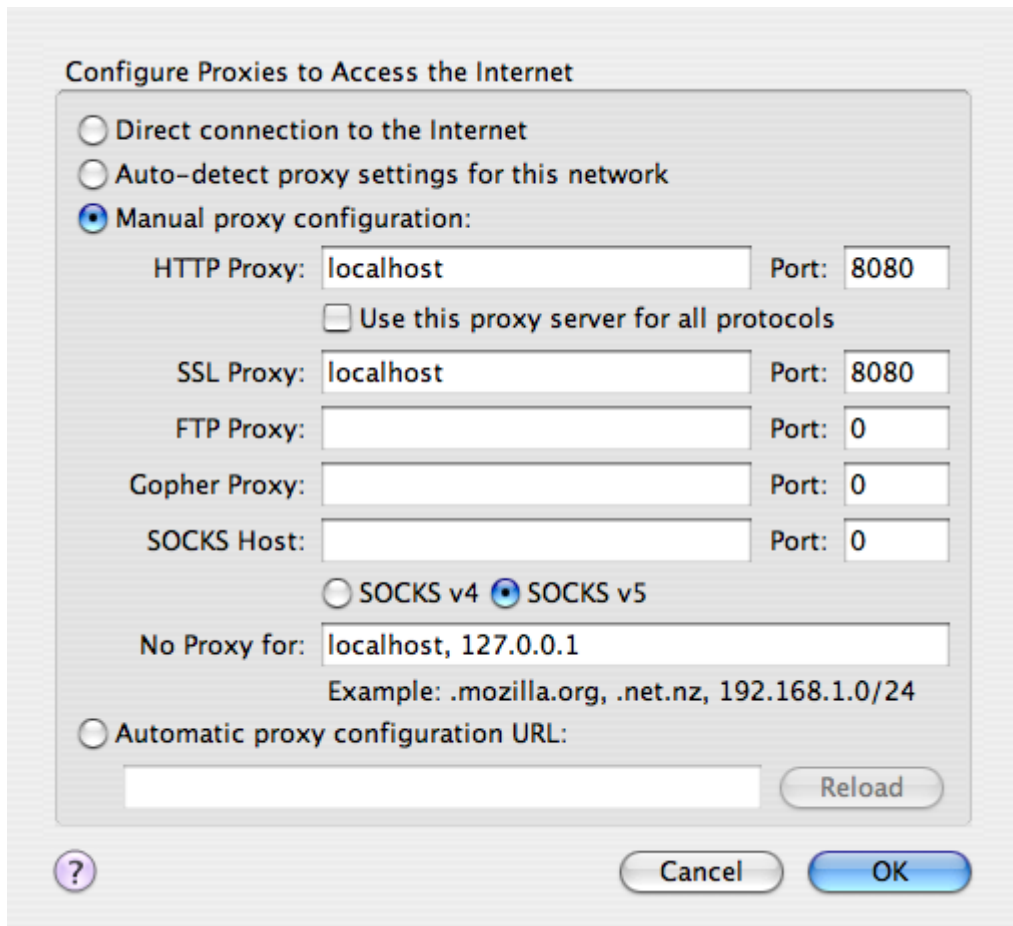
- SUN Brazil Framework
- JDOM
- Xerces

The documentation is far from being complete, so we apologize if there are things missing and hope that is will get better in later versions.

# Browser settings

To set up your browser to use PAW, specify your PAW server and port in the Proxy configuration settings (HTTP protocol) of your browser.

The sample screen shows the Firefox Proxy configuration dialog:



The image shows a screenshot of the "Configure Proxies to Access the Internet" dialog box in Firefox. The dialog is titled "Configure Proxies to Access the Internet" and has three radio button options at the top: "Direct connection to the Internet", "Auto-detect proxy settings for this network", and "Manual proxy configuration:". The "Manual proxy configuration:" option is selected. Below this, there are several input fields and checkboxes. The "HTTP Proxy:" field contains "localhost" and the "Port:" field contains "8080". There is a checkbox labeled "Use this proxy server for all protocols" which is unchecked. Below that, the "SSL Proxy:" field contains "localhost" and the "Port:" field contains "8080". The "FTP Proxy:" field is empty and the "Port:" field contains "0". The "Gopher Proxy:" field is empty and the "Port:" field contains "0". The "SOCKS Host:" field is empty and the "Port:" field contains "0". There are two radio button options for SOCKS: "SOCKS v4" and "SOCKS v5", with "SOCKS v5" selected. Below these, the "No Proxy for:" field contains "localhost, 127.0.0.1" and an example text below it reads "Example: .mozilla.org, .net.nz, 192.168.1.0/24". At the bottom, there is an "Automatic proxy configuration URL:" label followed by an empty text box and a "Reload" button. At the very bottom of the dialog are three buttons: a help button (question mark in a circle), a "Cancel" button, and an "OK" button.

# Starting the server

Starting the server should be straight forward.  
To start the server **Java 1.5** or higher is required.

## On UNIX Systems

Execute the shell script `server.sh`.  
Make sure that the file `server.sh` has execute permission.  
If not execute the command `chmod 755 server.sh`.

## On Windows Systems

Double-click on the file `paw-server.jar`.

## Other Systems

Change to the PAW install directory and execute `java -jar pawserver.jar`.

---

## Startup screen

When the server started up, no output will be displayed on the console. The server's logfile is written to `logs/server.log`.

On successful startup the logfile should contain the following lines:

```
PAW Server started on port 8080  
PAW Admin Server started on port 4444
```

If supported by the Java version and the OS a System Tray icon  is displayed.

# Starting the GUI

Starting the server should be straight forward.  
To start the GUI **Java 1.5** or higher is required.

## On UNIX Systems

Execute the shell script `gui.sh`.  
Make sure that the file `gui.sh` has execute permission.  
If not execute the command `chmod 755 gui.sh`.

## On Windows Systems

Double-click on the file `paw-gui.jar`.

## Other Systems

Change to the PAW install directory and execute `java -jar pawgui.jar`.

---

## Startup screen

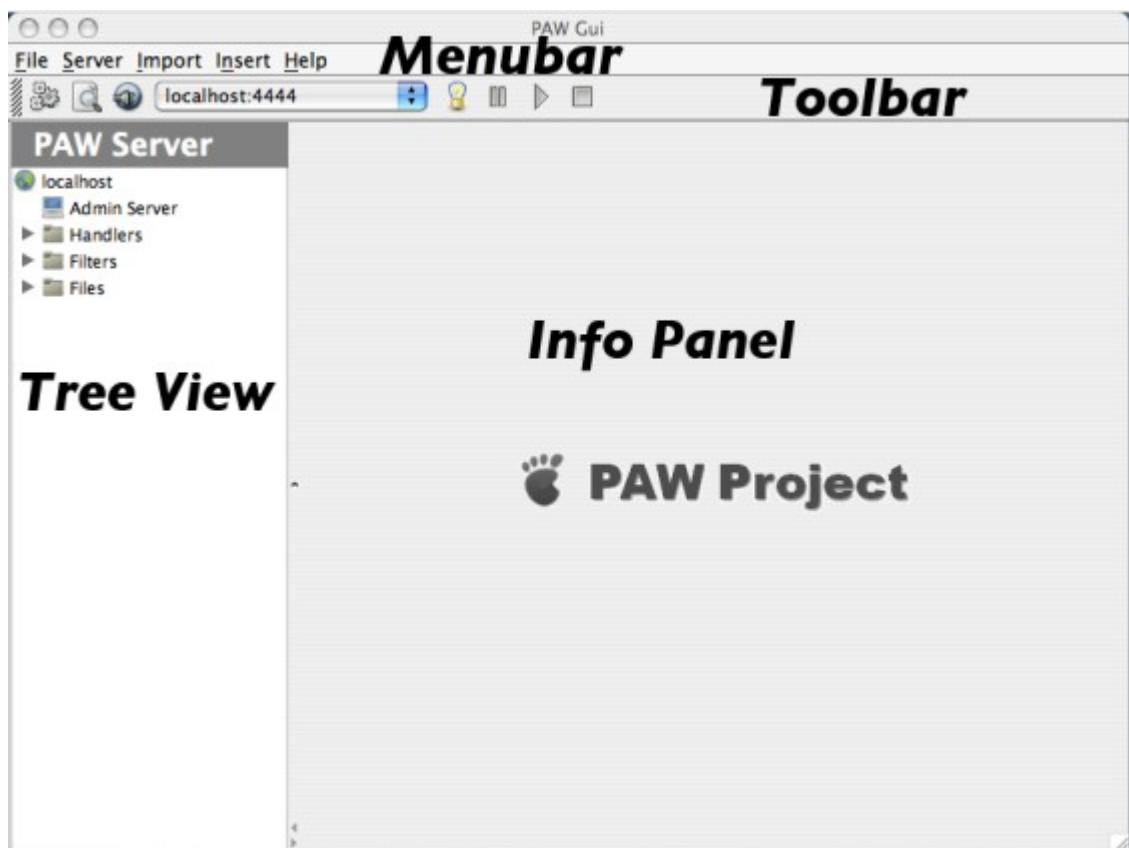
When the GUI is successfully started the startup window should appear.



### Note:

PAW GUI will try an automatic login on startup on the local machine (user: `admin` password: `paw`). If you have changed user/password or your admin server is not running on port `4444` on the local machin the login will fail . In this case have a look at [Remote Connection](#).

# GUI layout



The PAW GUI Window has four main sections:

- Menubar
- Toolbar
- Tree View
- Info Panel

# Manubar

The PAW GUI menubar includes the following menus:

## File Menu



Save changed settings back to server. This will also restart the PAW Server.



Exit PAW GUI.

## Server Menu



Connect to a PAW Server. The Server can be selected in the dropdown list included in the toolbar. For more information about connecting to a server see [Remote connection](#).



Show Server Logfile



Clear Server Logfile



Save Brazil Config



Show PAW Serve status information.



Stop PAW Server.



Start PAW Server.



Shutdown the PAW Server. The PAW Server has to be started manually afterwards (see [Starting the server](#)).

## Import Menu



Handlers and Filters

## Insert Menu



New - Insert new Filters and Handlers.

## Help Menu



Documentation



About PAW GUI.



# Toolbar

The PAW GUI toolbar includes the following items:



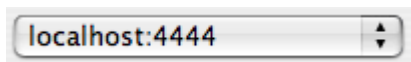
Save changed settings back to server. This will also restart the PAW Server.



Show Server Logfile



Connect to a PAW Server. The Server can be selected in the dropdown list included in the toolbar. For more information about connecting to a server see [Remote connection](#).



Choose server to connect to or **New Connection** to connect to an unlisted server.



Show PAW Serve status information.



Stop PAW Server.



Start PAW Server.




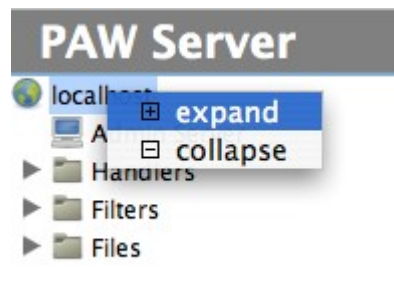
Shutdown the PAW Server. The PAW Server has to be started manually afterwards (see [Starting the server](#)).

# Tree view

The tree-view shows the Server, Admin-Server, Handler, Filter and File Settings. To get information about tree-items left-click on them and the appropriate information will be displayed in the right frame of the PAW GUI window.

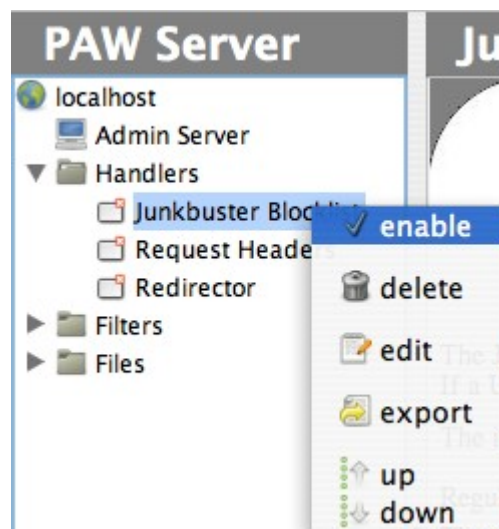
## Expanding/Collapsing tree view

To expand/collapse the tree, select the server node  and press the right mouse button. A popup menu will appear.



## Enabling/Disabling Handlers and Filters

To enable/disable handlers and filters, select the handler/filter and press the right mouse button. A popup will appear to disable or enable the selected item.



## Context Menu

  Disable/Enable Handler/Filter.

 Delete Handler/Filter.

 Edit Handler/Filter.



Export Handler/Filter as XML file.



Move Filter/Handler up in tree.



Move Filter/Handler down in tree.

# Remote connection

The PAW Server can reside on a different machine than the PAW GUI. This means that it is possible to administer more than one PAW Server by using the same GUI.

To connect to a remote Server select **New Connection** from the dropdown list in the toolbar and press the  button.

The following dialog box appears:



Fill out the hostname and port field. The port that has to be specified is the PAW Admin-Serve port, not the port of the PAW Server (the standard port for the PAW Admin-Server is 4444).

In the next dialog fill in username and password.



The standard user is `admin` and the standard password is `paw`  
You should change this as soon as possible to have a secure site.

If everything works out fine, you will see the tree-view of the connected server.

All successful logins are remembered in the file `hosts` in your PAW install directory on exiting PAW.

## Note:

Within GUI sessions login information to different hosts will be stored.

So if changing hosts within the same session, you don't have to provide user and password information again.

# Handlers and Filters

PAW differentiates between Handlers and Filters.

Handlers act on HTTP requests, while Filters act on the HTTP responses.



## Custom Filters

Custom Filters (💡) are **not** part of the HTTP proxy filter chain!

## Handlers



### Junkbuster Blocklist

(standard Handler in the Brazil package from SUN)

Filters unwanted websites. If such a site is found only a transparent GIF is returned, leaving the page empty.

Blocked sites can be configured in the file  **blockfile**.



### Request Headers

Allows the modification of Request Headers (insert and delete).

Header configuration is stored in the file  **headers**.

---

## Filters



### RegExp Filter

This filter is used to filter HTTP responses with regular expression.

Replace and size filters are supported.



### onLoad Filter

Filters onLoad JavaScript instructions in HTML pages to stop them from executing scripts on startup.



### onUnLoad Filter

Filters onUnLoad JavaScript instructions in HTML pages to stop them from executing scripts when leaving the page.



### MS Smart Tag Filter

Inserts a meta tag in HTML pages to disallow MS Smart Tags.

 **Applet  
Filters**

Removes applets from Web Pages.

 **ActiveX  
Filter**

Removes ActiveX Controls (Object tags) from Web Pages.

 **Image  
Filter**

Removes images from Web Pages.

 **Pop-Up  
Filter**

Removes popups from Web Pages. But it is still possible to open windows after the Web page has been loaded. This filter should be used together with the onLoad Filter to make sure that popups are not opened by using the unLoad instruction.

 **Enable  
Right-Click  
Menu Filter**

This filter enables right-mouse click on web pages where right-mouse click is disabled.

 **Banner  
size Filter**

This filter removes images with specific sizes from web pages. The sizes are specified in the file `bannersizes`. **Note: If there are a log of sizes specified this filter may slowdown the serve. In this case it is recommended to disable this filter and to rely on the `GIF Size Filter` which also uses the file `bannersizes`.**

 **WebBug  
Filter**

Filters images with specified sizes. This filter is used to filter fake images with very small sizes (mostly 1x1 pixels) which may trigger unwanted scripts on a remote server.

 **Animated  
GIF Filter**

Filters animated gif images in the way that it removed all but the first frame.

 **GIF  
Size Filter**

Filters GIF images by size. It uses the file `bannersizes` for size information.


 **Virus  
Filter**

***This filter is highly experimental!***


This filter allows to plug in a virus scanner. The drawback is, that the file has first to be completely downloaded by the PAW Server, before it can be delivered to the user.

Thew filter has been tested with f-prot beta for Linux. For more details on the configuration see the file `virus.conf`

# Import Handlers and Filters

To import Handlers or Filters into PAW select the  **Import Handlers and Filters** from the **Import** Menu and select the XML file to import.  
After the import is complete you are presented with a summary view.




Don't forget to sync the changes with the server () , otherwise they will be lost.

If you are importing Handlers/Filters that include Java classes uncompress them into the **classes** directory.

Additional Handlers and Filters will be available on [paw-project.sourceforge.net](http://paw-project.sourceforge.net).



# Server

To configure the PAW Server, simply select the  node in the tree-view. The Server Configuration will be displayed in the right window.


Here you can change the `port` and `log` settings for your PAW Server.

Log-level `0` is the lowest log-level, `5` the highest. The log is written to the standard output of the PAW Server.


To enable HTTPS check the `Enable HTTPS` checkbox

To disable all handlers/filters check the `Pass-through mode` checkbox.

If you are behind a firewall or using a proxy hook the `Use Proxy` selection box and specify name and port of the proxy server to use.

After you have finished press the  in the configuration window. To save back the whole configuration use the save button in the toolbar.


# Admin-Server

To configure the PAW AdminServer, simply select the  node in the tree-view. The Admin-Server Configuration will be displayed in the right window.


Here you can change the **port**, **user** and **password** for the Admin Server or if you want to use an Admin Server at all.

**Note:**


If you deselect the **Use Admin Server** checkbox (and save the configuration you will not be able to manage this PAW Server via the PAW GUI.

After you have finished press  in the configuration window. To save back the whole configuration use the save button in the toolbar.

# Files section

Filter or Handler specific files (like information on ads sizes) are collected in the  **Files** subtree of the tree-view.

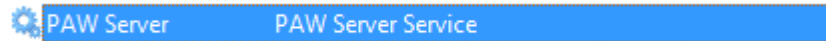
Click on the file you want to view or change in the tree view. The file content will be displayed in the right frame.

After you have finished editig the file, press the  in the configuration window. To save back the whole configuration use the save button in the toolbar.

# Windows Service

## Installation

To install PAW as a Windows Service double-click the file `windows-service\InstallApp-NT.bat` in the PAW installation directory. After the Installation the PAW service should be available as a Windows Service.



## Removal

To uninstall PAW Windows Service double-click the file `windows-service\UninstallApp-NT.bat` in the PAW installation directory.



### Note

On Windows Vista the `bat` files have to be run as **Administrator!**

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For more information on the PAW Project, please see <http://paw-project.sourceforge.net/>.

# Known issues