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This FAQ gives quick answers to frequently asked questions about <u>Privoxy</u>. It can't and doesn't replace the <u>User Manual</u>.

Privoxy is a web proxy with advanced filtering capabilities for protecting privacy, filtering web page content, managing cookies, controlling access, and removing ads, banners, pop—ups and other obnoxious Internet junk. Privoxy has a very flexible configuration and can be customized to suit individual needs and tastes. Privoxy has application for both stand—alone systems and multi–user networks.

Privoxy is based on Internet Junkbuster (tm).

Please note that this document is constantly evolving. This copy represents the state at the release of version 3.1.1. You can find the latest version of the document at <a href="http://www.privoxy.org/faq/">http://www.privoxy.org/faq/</a>. Please see the <a href="Contact section">Contact the developers</a>.

# **Table of Contents**

1. Ge	neral Information	1
	1.1. What is this new version of Privoxy?	1
	1.2. Why "Privoxy"? Why a name change at all?	1
	1.3. How does Privoxy differ from the old Junkbuster?	1
	1.4. What is a "proxy"? How does Privoxy work?	
	1.5. How does Privoxy know what is an ad, and what is not?	2
	1.6. Can Privoxy make mistakes? This does not sound very scientific	3
	1.7. My browser does the same things as Privoxy. Why should I use Privoxy at all?	3
	1.8. Is there is a license or fee? What about a warranty? Registration?	3
	1.9. I would like to help you, what do I do?	
2. Ins	stallation	5
<u> </u>	2.1. Which browsers are supported by Privoxy?	
	2.2. Which operating systems are supported?	
	2.3. Can I install Privoxy over Junkbuster?	
	2.4. I just installed Privoxy. Is there anything special I have to do now?	
	2.5. What is the proxy address of Privoxy?	
	2.6. I just installed Privoxy, and nothing is happening. All the ads are there. What's wrong?	
	2.0. I just instance I IIVOAY, and nothing is happening. All the ads are there. What's wrong	0
3. Co	nfiguration	7
	3.1. Where can I get updated Actions Files?	7
	3.2. Can I use my old config files?	7
	3.3. What is an "actions" file?	7
	3.4. The "actions" concept confuses me. Please list some of these "actions"	7
	3.5. How are actions files configured? What is the easiest way to do this?	7
	3.6. There are several different "actions" files. What are the differences?	8
	3.7. How can I make my Yahoo/Hotmail/GMX account work?	8
	3.8. What's the difference between the "Cautious", "Medium" and "Advanced" defaults?	8
	3.9. Why can I change the configuration with a browser? Does that not raise security issues?	9
	3.10. What is the default filter file? What is a "filter"?	9
	3.11. How can I set up Privoxy to act as a proxy for my LAN?	9
	3.12. Instead of ads, now I get a checkerboard pattern. I don't want to see anything	10
	3.13. Why would anybody want to see a checkerboard pattern?	10
	3.14. I see some images being replaced by a text instead of the checkerboard image. Why and	
	how do I get rid of this?	10
	3.15. Can Privoxy run as a service on Win2K/NT?	10
	3.16. How can I make Privoxy work with other proxies like Squid?	11
	3.17. Can I just set Privoxy to use port 80 and thus avoid individual browser configuration?	11
	3.18. Can Privoxy run as a "transparent" proxy?	11
4 3 51		
<u>4. Mi</u>	scellaneous.	
	4.1. How much does Privoxy slow my browsing down? This has to add extra time to browsing	12
	4.2. I noticed considerable delays in page requests compared to the old Junkbuster. What's	10
	wrong?	
	4.3. What are "http://config.privoxy.org/" and "http://p.p/"?	
	4.4. Do you still maintain the blocklists?	
	4.5. How can I submit new ads?	
	4.6. How can I hide my IP address?	13

# **Table of Contents**

4. Miscellaneous	
4.7. Can Privoxy guarantee I am anonymous?	13
4.8. Might some things break because header information or content is being altered?	14
4.9. Can Privoxy act as a "caching" proxy to speed up web browsing?	14
4.10. What about as a firewall? Can Privoxy protect me?	14
4.11. I have large empty spaces / a checkerboard pattern now where ads used to be. Why?	14
4.12. How can Privoxy filter Secure (HTTPS) URLs?	15
4.13. Privoxy runs as a "server". How secure is it? Do I need to take any special precautions?	
4.14. How can I temporarily disable Privoxy?	15
4.15. When "disabled" is Privoxy totally out of the picture?	15
4.16. My logs show Privoxy "crunches" ads, but also its own CGI pages. What is a "crunch"?	15
4.17. Can Privoxy effect files that I download from a webserver? FTP server?	16
4.18. Where can I find more information about Privoxy and related issues?	16
5. Troubleshooting	18
5.1. I just upgraded and am getting "connection refused" with every web page?	18
5.2. I just added a new rule, but the steenkin ad is still getting through. How?	18
5.3. One of my favorite sites does not work with Privoxy. What can I do?	
5.4. After installing Privoxy, I have to log in every time I start IE. What gives?	19
5.5. I cannot connect to any FTP sites. Privoxy seems to be blocking me.	19
5.6. In Mac OSX, I can't configure Microsoft Internet Explorer to use Privoxy as the HTTP	
proxy	19
5.7. In Mac OSX, I dragged the Privoxy folder to the trash in order to uninstall it. Now the fine	<u>der</u>
tells me I don't have sufficient privileges to empty the trash.	 19
5.8. I get a completely blank page at one site. "View Source" shows only:	
<html><body></body></html> .	20
6. Contacting the developers, Bug Reporting and Feature Requests	21
6.1. Get Support	
6.2. Report Bugs.	21
6.3. Request New Features.	21
6.4. Report Ads or Other Actions–Related Problems	21
6.5. Other.	
7. Privoxy Copyright, License and History	23
7.1. License	
7.2. History	23

### 1. General Information

### 1.1. What is this new version of Privoxy?

In the beginning, there was the <u>Internet Junkbuster</u>, by Anonymous Coders and <u>Junkbusters Corporation</u>. It saved many users a lot of pain in the early days of web advertising and user tracking.

But the web, its protocols and standards, and with it, the techniques for forcing users to consume ads, give up autonomy over their browsing, and for spying on them, kept evolving. Unfortunately, the Internet Junkbuster did not. Version 2.0.2, published in 1998, was (and is) the last official <u>release</u> available from <u>Junkbusters</u> <u>Corporation</u>. Fortunately, it had been released under the GNU <u>GPL</u>, which allowed further development by others.

So Stefan Waldherr started maintaining an <u>improved version of the software</u>, to which eventually a number of people contributed patches. It could already replace banners with a transparent image, and had a first version of pop—up killing, but it was still very closely based on the original, with all its limitations, such as the lack of HTTP/1.1 support, flexible per—site configuration, or content modification. The last release from this effort was version 2.0.2–10, published in 2000.

Then, some <u>developers</u> picked up the thread, and started turning the software inside out, upside down, and then reassembled it, adding many <u>new features</u> along the way.

The result of this is Privoxy, whose first stable release, 3.0, was released August, 2002.

### 1.2. Why "Privoxy"? Why a name change at all?

Privoxy is the "*Privacy Enhancing Proxy*". Also, its content modification and junk suppression allow you to browse your "*private* edition" of the web.

<u>Junkbusters Corporation</u> continues to offer their original version of the Internet Junkbuster, so publishing our Junkbuster—derived software under the same name led to confusion.

There are also potential legal complications from the continued use of the Junkbuster name, which is a registered trademark of <u>Junkbusters Corporation</u>. There are, however, no objections from Junkbusters Corporation to the Privoxy project itself, and they, in fact, still share our ideals and goals.

The developers also believed that there are so many changes from the original code, that it was time to make a clean break from the past and make a name in their own right, especially now with the pending release of version 3.0.

### 1.3. How does Privoxy differ from the old Junkbuster?

Privoxy picks up where Junkbuster left off. All the old features remain. The new Privoxy still blocks ads and banners, still manages cookies, and still helps protect your privacy. But, these are all enhanced, and many new features have been added, all in the same vein.

The configuration has changed significantly as well. This is something that users will notice right off the bat if upgrading from Junkbuster 2.0.x. The "blocklist" "cookielist", "imagelist" and much more has been combined into the "actions" files, with a completely different syntax. See the <u>note to upgraders</u> for details.

Privoxy's new features include:

- Integrated browser based configuration and control utility at <a href="http://config.privoxy.org/">http://config.privoxy.org/</a> (shortcut: <a href="http://p.p/">http://p.p/</a>). Browser—based tracing of rule and filter effects. Remote toggling.
- Web page content filtering (removes banners based on size, invisible "web-bugs", JavaScript and HTML annoyances, pop-up windows, etc.)
- Modularized configuration that allows for standard settings and user settings to reside in separate files, so that installing updated actions files won't overwrite individual user settings.
- HTTP/1.1 compliant (but not all optional 1.1 features are supported).
- Support for Perl Compatible Regular Expressions in the configuration files, and generally a more sophisticated and flexible configuration syntax over previous versions.
- Improved cookie management features (e.g. session based cookies).
- GIF de–animation.
- Bypass many click-tracking scripts (avoids script redirection).
- Multi-threaded (POSIX and native threads).
- User-customizable HTML templates for all proxy-generated pages (e.g. "blocked" page).
- Auto-detection and re-reading of config file changes.
- Improved signal handling, and a true daemon mode (Unix).
- Every feature now controllable on a per–site or per–location basis, configuration more powerful and versatile over–all.
- Many smaller new features added, limitations and bugs removed, and security holes fixed.

#### 1.4. What is a "proxy"? How does Privoxy work?

A web proxy is a service, based on a software such as Privoxy, that clients (i.e. browsers) can use instead of connecting directly to the web servers on the Internet. The clients then ask the proxy to fetch the objects they need (web pages, images, movies etc) on their behalf, and when the proxy has done so, it hands the results back to the client.

There are many reasons to use web proxies, such as security (firewalling), efficiency (caching) and others, and there are just as many different proxies to accommodate those needs.

Privoxy is a proxy that is solely focused on privacy protection and junk elimination. Sitting between your browser(s) and the Internet, it is in a perfect position to filter outbound personal information that your browser is leaking, as well as inbound junk. It uses a variety of techniques to do this, all of which are under your control via the various configuration files and options.

### 1.5. How does Privoxy know what is an ad, and what is not?

Privoxy's approach to blocking ads is twofold:

First, there are certain patterns in the *locations* (URLs) of banner images. This applies to both the path (you wouldn't guess how many web sites serve their banners from a directory called "banners"!) and the host (blocking the big banner hosting services like doublecklick.net already helps a lot). Privoxy takes advantage of this fact by using <u>URL patterns</u> to sort out and block the requests for banners.

Second, banners tend to come in certain *sizes*. But you can't tell the size of an image by its URL without downloading it, and if you do, it's too late to save bandwidth. Therefore, Privoxy also inspects the HTML sources of web pages while they are loaded, and replaces references to images with standard banner sizes by dummy references, so that your browser doesn't request them anymore in the first place.

Both of this involves a certain amount of guesswork and is, of course, freely configurable.

### 1.6. Can Privoxy make mistakes? This does not sound very scientific.

Actually, it's a black art ;—) And yes, it is always possible to have a broad rule accidentally block or change something by mistake. There is a good chance you may run into such a situation at some point. It is tricky writing rules to cover every conceivable possibility, and not occasionally get false positives.

But this should not be a big concern since the Privoxy configuration is very flexible, and includes tools to help identify these types of situations so they can be addressed as needed, allowing you to customize your installation. (See the Troubleshooting section below.)

# 1.7. My browser does the same things as Privoxy. Why should I use Privoxy at all?

Modern browsers do indeed have *some* of the same functionality as Privoxy. Maybe this is adequate for you. But Privoxy is much more versatile and powerful, and can do a number of things that browsers just can't.

In addition, a proxy is good choice if you use multiple browsers, or have a LAN with multiple computers. This way all the configuration is in one place, and you don't have to maintain a similar configuration for possibly many browsers.

#### 1.8. Is there is a license or fee? What about a warranty? Registration?

Privoxy is licensed under the <u>GNU General Public License (GPL)</u>. It is free to use, copy, modify or distribute as you wish under the terms of this license. Please see the <u>Copyright</u> section for more information on the license and copyright. Or the LICENSE file that should be included.

There is *no warranty* of any kind, expressed, implied or otherwise. That is something that would cost real money;—) There is no registration either. Privoxy really is *free* in every respect!

### 1.9. I would like to help you, what do I do?

#### 1.9.1. Money Money Money

We, of course, welcome donations and could use money for domain registering, buying software to test Privoxy with, and, of course, for regular world—wide get—togethers (hahaha). If you enjoy the software and feel like helping us with a donation, just drop us a note.

#### 1.9.2. Software

If you are a vendor of a web-related software like a browser, web server or proxy, and would like us to ensure that Privoxy runs smoothly with your product, you might consider supplying us with a copy or license. We can't, however, guarantee that we will fix all potential compatibility issues as a result.

#### 1.9.3. You want to work with us?

Well, helping the team is always a good idea. We welcome new developers, packaging gurus or documentation writers. Simply get an account on SourceForge.net and mail your id to the developers mailing list. Then read the Developer's Manual.

Once we have added you to the team, you'll have write access to the <u>CVS repository</u>, and together we'll find a suitable task for you.

### 2. Installation

#### 2.1. Which browsers are supported by Privoxy?

Any browser that can be configured to use a proxy, which should be virtually all browsers. Direct browser support is not necessary since Privoxy runs as a separate application and talks to the browser in the standardized HTTP protocol, just like a web server does.

#### 2.2. Which operating systems are supported?

At present, Privoxy is known to run on Windows(95, 98, ME, 2000, XP), Linux (RedHat, SuSE, Debian, Conectiva, Gentoo, Slackware), Mac OSX, OS/2, AmigaOS, BeOS, FreeBSD, NetBSD, Solaris, and more flavors of Unix.

But any operating system that runs TCP/IP, can conceivably take advantage of Privoxy in a networked situation where Privoxy would run as a server on a LAN gateway. Then only the "gateway" needs to be running one of the above operating systems.

Source code is freely available, so porting to other operating systems is always a possibility.

#### 2.3. Can I install Privoxy over Junkbuster?

We recommend you un—install Junkbuster first to minimize conflicts and confusion. You may want to save your old configuration files for future reference. The configuration files and syntax have substantially changed, so you will need to manually port your old patterns. See the <u>note to upgraders</u> and <u>installation chapter</u> in the <u>user manual</u> for details.

Note: Some installers may automatically un-install Junkbuster, if present!

### 2.4. I just installed Privoxy. Is there anything special I have to do now?

All browsers must be told to use Privoxy as a proxy by specifying the correct proxy address and port number in the appropriate configuration area for the browser. See below. You should also flush your browser's memory and disk cache to get rid of any cached junk items.

### 2.5. What is the proxy address of Privoxy?

If you set up the Privoxy to run on the computer you browse from (rather than your ISP's server or some networked computer on a LAN), the proxy will be on 127.0.0.1 (sometimes referred to as "localhost", which is the special name used by every computer on the Internet to refer to itself) and the port will be 8118 (unless you have Privoxy to run on a different port with the <u>listen-address</u> config option).

When configuring your browser's proxy settings you typically enter the word "localhost" or the IP address "127.0.0.1" in the boxes next to "HTTP" and "Secure" (HTTPS) and then the number "8118" for "port". This tells your browser to send all web requests to Privoxy instead of directly to the Internet.

Privoxy can also be used to proxy for a Local Area Network. In this case, your would enter either the IP address of the LAN host where Privoxy is running, or the equivalent hostname. Port assignment would be

2. Installation 5

same as above. Note that Privoxy doesn't listen on any LAN interfaces by default.

Privoxy does not currently handle protocols such as FTP, SMTP, IM, IRC, ICQ, or other Internet protocols.

# 2.6. I just installed Privoxy, and nothing is happening. All the ads are there. What's wrong?

Did you configure your browser to use Privoxy as a proxy? It does not sound like it. See above. You might also try flushing the browser's caches to force a full re-reading of pages. You can verify that Privoxy is running, and your browser is correctly configured by entering the special URL: <a href="http://config.privoxy.org/">http://config.privoxy.org/</a>. This should take you to a page titled "This is Privoxy." with access to Privoxy's internal configuration. If you see this, then you are good to go. If you receive a page saying "Privoxy is not running", then the browser is not set up to use your Privoxy installation. If you receive anything else (probably nothing at all), it could either be that the browser is not set up correctly, or that Privoxy is not running at all. Check the <a href="log file">log file</a>.

2. Installation 6

## 3. Configuration

#### 3.1. Where can I get updated Actions Files?

Based on your feedback and the continuing development, updated actions files will be made available on the <u>files section</u> of our <u>project page</u>.

If you wish to receive an email notification whenever we release updates of Privoxy or the actions file, subscribe to our announce mailing list, ijbswa-announce@lists.sourceforge.net.

#### 3.2. Can I use my old config files?

The syntax, number, and purpose of configuration files has substantially changed from Junkbuster and earlier versions of Privoxy. The old files, like blocklist will not work at all. If you are upgrading from a 2.0.x version, you will need to port your configuration data to the new format. Note that even the pattern syntax has changed! Even configuration files from the 2.9.x versions will need to be adapted, as configuration syntax has been very much in flow in the 2.9.x series.

#### 3.3. What is an "actions" file?

<u>Actions files</u> are where various <u>actions</u> that Privoxy might take while processing a certain request, are configured. Typically, you would define a set of default actions that apply to all URLs, then add exceptions to these defaults where needed.

Actions can be defined on a <u>URL pattern</u> basis, i.e. for single URLs, whole web sites, groups or parts thereof etc. Actions can also be grouped together and then applied to requests matching one or more patterns. There are many possible actions that might apply to any given site. As an example, if you are blocking cookies as one of your default actions, but need to accept cookies from a given site, you would need to define an exception for this site in one of your actions files, preferably in user.action

# 3.4. The "actions" concept confuses me. Please list some of these "actions".

For a comprehensive discussion of the actions concept, please refer to the <u>actions file chapter</u> in the <u>user manual</u>. It includes a <u>list of all actions</u> and an <u>actions file tutorial</u> to get you started.

# 3.5. How are actions files configured? What is the easiest way to do this?

Actions files are just text files in a special syntax and can be edited with a text editor. But probably the easiest way is to access Privoxy's user interface with your web browser at <a href="http://config.privoxy.org/">http://config.privoxy.org/</a> (Shortcut: <a href="http://p.p/">http://p.p/</a>) and then select "View & change the current configuration" from the menu.

#### 3.6. There are several different "actions" files. What are the differences?

As of Privoxy v2.9.15, three actions files are being included, to be used for different purposes: These are default.action, the "main" actions file which is actively maintained by the Privoxy developers, user.action, where users are encouraged to make their private customizations, and standard.action, which is for internal Privoxy use only. Please see the actions chapter in the user manual for a more detailed explanation.

Earlier versions included three different versions of the default.action file. The new scheme allows for greater flexibility of local configuration, and for browser based selection of pre-defined "aggressiveness" levels.

#### 3.7. How can I make my Yahoo/Hotmail/GMX account work?

The default configuration shouldn't impact the usability of any of these services. It will, however, make all cookies temporary, so that your browser will forget your login credentials in between browser sessions. If you would like not to have to log in manually each time you access those websites, simply turn off all cookie handling for them in the user.action file. An example for yahoo might look like:

```
# Allow all cookies for Yahoo login:
#
{ -crunch-incoming-cookies -crunch-outgoing-cookies -session-cookies-only }
.login.yahoo.com
```

# 3.8. What's the difference between the "Cautious", "Medium" and "Advanced" defaults?

Configuring Privoxy is not entirely trivial. To help you get started, we provide you with three different default action "packages" in the web based actions file editor at <a href="http://config.privoxy.org/show-status">http://config.privoxy.org/show-status</a>. The following table shows you, which of the most important features are enabled in each configuration:

Table	1 Default	Confi	gurations
Lame	i. i <i>j</i> erann	· COIIII	ymi amons

Feature	Cautious	Intermadiate	Advanced
Ad-blocking by URL	yes	yes	yes
Ad-filtering by size	yes	yes	yes
GIF de-animation	no	yes	yes
Referer forging	no	yes	yes
Cookie handling	none	session-only	kill
Pop-up killing	no	yes	yes
Fast redirects	no	no	yes
HTML taming	yes	yes	yes
JavaScript taming	yes	yes	yes
Web-bug killing	yes	yes	yes
Fun text replacements	no	no	yes
Image tag reordering	no	no	yes

Ad filtering by link	no	no	NAC
Ad-filtering by link	no	no	yes

Where the defaults are likely to break some sites, exceptions for known popular "problem" sites are included, but in general, the more aggressive your default settings are, the more exceptions you will have to make later. See the <u>user manual</u> for a more deatiled discussion.

# 3.9. Why can I change the configuration with a browser? Does that not raise security issues?

It may seem strange that regular users can edit the config files with their browsers, although the whole /etc/privoxy hierarchy belongs to the user "privoxy", with only 644 permissions.

When you use the browser-based editor, Privoxy itself is writing to the config files. Because Privoxy is running as the user "privoxy", it can update the config files.

If you run Privoxy for multiple untrusted users (e.g. in a LAN), you will probably want to turn the web-based editor and remote toggle features off by setting "enable-edit-actions 0" and "enable-remote-toggle 0" in the main configuration file.

Note that in the default configuration, only local users (i.e. those on "localhost") can connect to Privoxy, so this is not (normally) a security problem.

#### 3.10. What is the default.filter file? What is a "filter"?

The <u>default.filter</u> file is where *filters* are defined, which can be used to modify or remove, web page content on the fly. Filters apply to *anything* in the page source, including HTML tags, and JavaScript. Regular expressions are used to accomplish this. There are a number of pre–defined filters to deal with common annoyances. The filters are only defined here, to invoke them, you need to use the <u>filter action</u> in one of the actions files. Filtering is automatically disabled for inappropriate MIME types.

If you are familiar with regular expressions, and HTML, you can look at the provided default.filter with a text editor and define your own filters. This is potentially a very powerful feature, but requires some expertise in both regular expressions and HTML/HTTP.

Presently, there is no GUI editor option for this part of the configuration, but you can disable/enable the various pre-defined filters of the included default.filter file with the web-based actions file editor.

### 3.11. How can I set up Privoxy to act as a proxy for my LAN?

By default, Privoxy only responds to requests from 127.0.0.1 (localhost). To have it act as a server for a network, this needs to be changed in the <u>main configuration file</u>. Look for the <u>listen-address</u> option, which may be commented out with a "#" symbol. Make sure it is uncommented, and assign it the address of the LAN gateway interface, and port number to use. Assuming your LAN address is 192.168.1.1 and you wish to run Privoxy on port 8118, this line should look like:

```
listen-address 192.168.1.1:8118
```

Save the file, and restart Privoxy. Configure all browsers on the network then to use this address and port number.

If you run Privoxy on a LAN with untrusted users, we recommend that you double-check the <u>access control</u> and <u>security</u> options!

# 3.12. Instead of ads, now I get a checkerboard pattern. I don't want to see anything.

The replacement for blocked images can be controlled with the <u>set-image-blocker action</u>. You have the choice of a checkerboard pattern, a transparent 1x1 GIF image (aka "blank"), or a redirect to a custom image of your choice. Note that this choice only has effect for images which are blocked as images, i.e. whose URLs match both a <u>handle-as-image</u> and <u>block</u> action.

If you want to see nothing, then change the <u>set-image-blocker action</u> to "blank". This can be done by editing the default.action file, or trough the <u>web-based actions file editor</u>.

#### 3.13. Why would anybody want to see a checkerboard pattern?

Remember that telling which image is an ad and which isn't, is mostly guesswork. While we hope that the standard configuration is rather smart, it can and will make errors. The checkerboard image is visually decent, but it shows you that and where images were blocked, which can be very helpful in case some navigation aid or otherwise innocent image was erraneously blocked. Some people might also enjoy seeing how many banners they *don't* have to see..

# 3.14. I see some images being replaced by a text instead of the checkerboard image. Why and how do I get rid of this?

This happens when the banners are not embedded in the HTML code of the page itself, but in separate HTML (sub)documents that are loaded into (i)frames or (i)layers, and these external HTML documents are blocked. Being non-images they get replaced by a substitute HTML page rather than a substitute image, which wouldn't work out technically, since the browser expects and accepts only HTML when it has requested an HTML document.

The substitute page adapts to the available space and shows itself as a miniature two-liner if loaded into small frames, or full-blown with a large red "BLOCKED" banner if space allows.

If you prefer the banners to be blocked by images, you must see to it that the HTML documents in which they are embedded are not blocked. Clicking the "See why" link offered in the substitute page will show you which rule blocked the page. After changing the rule and un-blocking the HTML documents, the browser will try to load the actual banner images and the usual image blocking will (hopefully!) kick in.

### 3.15. Can Privoxy run as a service on Win2K/NT?

Yes, it can run as a system service using **srvany.exe**. The only catch is that this will effectively disable the Privoxy icon (and its menu!) in the taskbar. You can have one or the other, but not both at this time :(

There is a pending feature request for this functionality. See the discussion at <a href="http://sourceforge.net/tracker/?func=detail&atid=361118&aid=485617&group\_id=11118">http://sourceforge.net/tracker/?func=detail&atid=361118&aid=485617&group\_id=11118</a>, for details, and a sample configuration.

### 3.16. How can I make Privoxy work with other proxies like Squid?

This can be done and is often useful to combine the benefits of Privoxy with those of a caching proxy. See the <u>forwarding chapter</u> in the <u>user manual</u> which describes how to do this.

# 3.17. Can I just set Privoxy to use port 80 and thus avoid individual browser configuration?

No, its more complicated than that. This only works with special kinds of proxies known as "transparent" proxies (see below).

### 3.18. Can Privoxy run as a "transparent" proxy?

No, Privoxy currently does not have this ability, though it is planned for a future release. Transparent proxies require special handling of the request headers beyond what Privoxy is now capable of.

Chaining Privoxy behind another proxy that has this ability should work though. See the <u>forwarding chapter</u> in the <u>user manual</u>. As a transparent proxy to be used for chaining we recommend Transproxy (<a href="http://www.transproxy.nlc.net.au/">http://www.transproxy.nlc.net.au/</a>).

### 4. Miscellaneous

# 4.1. How much does Privoxy slow my browsing down? This has to add extra time to browsing.

It should not slow you down any in real terms, and may actually help speed things up since ads, banners and other junk are not being displayed. The actual processing time required by Privoxy itself for each page, is relatively small in the overall scheme of things, and happens very quickly. This is typically more than offset by time saved not downloading and rendering ad images.

"Filtering" content via the <u>filter</u> or <u>deanimate-gifs</u> actions may cause a perceived slowdown, since the entire document needs to be buffered before displaying. See below.

# 4.2. I noticed considerable delays in page requests compared to the old Junkbuster. What's wrong?

If you use any <u>filter</u> action, such as filtering banners by size, web-bugs etc, or the <u>deanimate-gifs</u> action, the entire document must be loaded into memory in order for the filtering mechanism to work, and nothing is sent to the browser during this time.

The loading time does not really change in real numbers, but the feeling is different, because most browsers are able to start rendering incomplete content, giving the user a feeling of "it works". This effect is especially noticeable on slow dialup connections.

Filtering is automatically disabled for inappropriate MIME types.

### 4.3. What are "http://config.privoxy.org/" and "http://p.p/"?

http://config.privoxy.org/ is the address of Privoxy's built—in user interface, and http://p.p/ is a shortcut for it.

Since Privoxy sits between your web browser and the Internet, it can simply intercept requests for these addresses and answer them with its built—in "web server".

This also makes for a good test for your browser configuration: If entering the URL <a href="http://config.privoxy.org/">http://config.privoxy.org/</a> takes you to a page saying "This is Privoxy.", everything is OK. If you get a page saying "Privoxy is not working" instead, then your browser didn't use Privoxy for the request, hence it could not be intercepted, and you have accessed the *real* web site at config.privoxy.org.

With recent versions of Privoxy (version 2.9.x and later), the user interface features information on the run time status, the configuration, and even a built–in editor for the <u>actions files</u>.

Note that the built—in URLs from earlier versions of Junkbuster / Privoxy, http://example.com/show—proxy—args and http://i.j.b/, are no longer supported. If you still use such an old version, you should really consider upgrading to 3.1.1.

#### 4.4. Do you still maintain the blocklists?

No. The patterns for blocking now reside (among other things) in the <u>actions files</u>, which are actively maintained instead. See next question ...

#### 4.5. How can I submit new ads?

Yes, absolutely! Please see the <u>Contact section</u> for how to do that. Please note that you (technically) need the latest Privoxy version for this to work.

#### 4.6. How can I hide my IP address?

If you run both the browser and the proxy locally, you cannot hide your IP address with Privoxy or any other software. The server needs to know your IP address to send the answers back to you.

Fortunately there are many publicly usable anonymous proxies out there, which solve the problem by providing a further level of indirection between you and the web server, shared by many people, and thus letting your requests "drown" in white noise of unrelated requests as far as user tracking is concerned.

Most of them will, however, log your IP address and make it available to the authorities in case you abuse that anonymity for criminal purposes. In fact you can't even rule out that some of them only exist to \*collect\* information on (those suspicious) people with a more than average preference for privacy.

You can find a list of anonymous public proxies at <u>multiproxy.org</u> and many more through Google. A particularly interesting project is the JAP service offered by the Technical University of Dresden (http://anon.inf.tu-dresden.de/index\_en.html.

There is, however, even in the single—machine case the possibility to make the server believe that your machine is in fact a shared proxy serving a whole big LAN, and we are looking into that.

### 4.7. Can Privoxy guarantee I am anonymous?

No. Your chances of remaining anonymous are greatly improved, but unless you are an expert on Internet security it would be safest to assume that everything you do on the Web can be traced back to you.

Privoxy can remove various information about you, and allows *you* more freedom to decide which sites you can trust, and what details you want to reveal. But it's still possible that web sites can find out who you are. Here's one way this can happen.

A few browsers disclose the user's email address in certain situations, such as when transferring a file by FTP. Privoxy does not filter FTP. If you need this feature, or are concerned about the mail handler of your browser disclosing your email address, you might consider products such as NSClean.

Browsers available only as binaries could use non-standard headers to give out any information they can have access to: see the manufacturer's license agreement. It's impossible to anticipate and prevent every breach of privacy that might occur. The professionally paranoid prefer browsers available as source code, because anticipating their behavior is easier. Trust the source, Luke!

# 4.8. Might some things break because header information or content is being altered?

Definitely. More and more sites use HTTP header content to decide what to display and how to display it. There is many ways that this can be handled, so having hard and fast rules, is tricky.

"User-Agent" in particular is often used in this way to identify the browser, and adjust content accordingly. Changing this now (at least not further than removing the OS information) is not recommended, since so many sites do look for it. You may get undesirable results by changing this.

For instance, different browsers use different encodings of Russian and Czech characters, certain web servers convert pages on—the—fly according to the User Agent header. Giving a "User Agent" with the wrong operating system or browser manufacturer causes some sites in these languages to be garbled; Surfers to Eastern European sites should change it to something closer. And then some page access counters work by looking at the "Referer" header; they may fail or break if unavailable. The weather maps of Intellicast have been blocked by their server when no "Referer" or cookie is provided, is another example. (But you can forge both headers without giving information away). There are many other ways things can go wrong when trying to fool a web server.

Similar thoughts apply to modifying JavaScript, and, to a lesser degree, HTML elements.

If you have problems with a site, you will have to adjust your configuration accordingly. Cookies are probably the most likely adjustment that may be required, but by no means the only one.

### 4.9. Can Privoxy act as a "caching" proxy to speed up web browsing?

No, it does not have this ability at all. You want something like <u>Squid</u> for this. And, yes, before you ask, Privoxy can co–exist with other kinds of proxies like Squid. See the <u>forwarding chapter</u> in the <u>user manual</u> for details.

### 4.10. What about as a firewall? Can Privoxy protect me?

Not in the way you mean, or in the way a true firewall can. Privoxy can help protect your privacy, but not protect you from intrusion attempts. It is, of course, perfectly possible and recommended to use *both*.

# 4.11. I have large empty spaces / a checkerboard pattern now where ads used to be. Why?

It would be technically possible eliminate the banners in a way that frees their screen estate in many cases, by doing all banner blocking with filters, i.e. eliminating the whole image references from the HTML pages instead of letting them stay in, and blocking the resulting requests for the banners themselves.

But this would consume considerable CPU resources, would likely destroy the layout of many web pages which rely on the banners consuming a certain amount of screen space, and would fail in other cases, where the screen space is reserved e.g. by tables anyway. Also, making the banners disappear without a visual trace complicates troubleshooting.

So we won't support this in the default configuration, but you can of course define appropriate filters yourself.

#### 4.12. How can Privoxy filter Secure (HTTPS) URLs?

Since secure HTTP connections are encrypted SSL sessions between your browser and the secure site, and are meant to be reliably *secure*, there is little that Privoxy can do but hand the raw gibberish data though from one end to the other unprocessed.

The only exception to this is blocking by host patterns, as the client needs to tell Privoxy the name of the remote server, so that Privoxy can establish the connection. If that name matches a host—only pattern, the connection will be blocked.

As far as ad blocking is concerned, this is less of a restriction than it may seem, since ad sources are often identifiable by the host name, and often the banners to be placed in an encrypted page come unencrypted nonetheless for efficiency reasons, which exposes them to the full power of Privoxy's ad blocking.

# 4.13. Privoxy runs as a "server". How secure is it? Do I need to take any special precautions?

There are no known exploits that might affect Privoxy. On Unix—like systems, Privoxy can run as a non—privileged user, which is how we recommend it be run. Also, by default Privoxy only listens to requests from "localhost" only. The server aspect of Privoxy is not itself directly exposed to the Internet in this configuration. If you want to have Privoxy serve as a LAN proxy, this will have to be opened up to allow for LAN requests. In this case, we'd recommend you specify only the LAN gateway address, e.g. 192.168.1.1, in the main Privoxy configuration file and check all access control and security options. All LAN hosts can then use this as their proxy address in the browser proxy configuration, but Privoxy will not listen on any external interfaces. ACLs can be defined in addition, and using a firewall is always good too. Better safe than sorry.

### 4.14. How can I temporarily disable Privoxy?

The easiest way is to access Privoxy with your browser by using the remote toggle URL: <a href="http://config.privoxy.org/toggle">http://config.privoxy.org/toggle</a>. See the <a href="Bookmarklets section">Bookmarklets section</a> of the <a href="User Manual">User Manual</a> for an easy way to access this feature.

### 4.15. When "disabled" is Privoxy totally out of the picture?

No, this just means all filtering and actions are disabled. Privoxy is still acting as a proxy, but just not doing any of the things that Privoxy would normally be expected to do. It is still a "middle-man" in the interaction between your browser and web sites.

# 4.16. My logs show Privoxy "crunches" ads, but also its own CGI pages. What is a "crunch"?

A "crunch" simply means Privoxy intercepted *something*, nothing more. Often this is indeed ads or banners, but Privoxy uses the same mechanism for trapping requests for its own internal pages. For instance, a request for Privoxy's configuration page at: <a href="http://config.privoxy.org">http://config.privoxy.org</a>, is intercepted (i.e. it does not go out to the 'net), and the familiar CGI configuration is returned to the browser, and the log consequently will show a "crunch".

# 4.17. Can Privoxy effect files that I download from a webserver? FTP server?

From the webserver's perspective, there is no difference between viewing a document (i.e. a page), and downloading a file. The same is true of Privoxy. If there is a match for a block pattern, it will still be blocked, and of course this is obvious. Filtering is potentially more of a concern since the results are not always so obvious.

Privoxy knows the differences in files according to the "Document Type" as reported by the webserver. If this is reported accurately (e.g. "application/zip" for a zip archive), then Privoxy knows to ignore these where appropriate. It is possible, however, that documents that are of an unknown type (generally assumed to be "text/plain") will be filtered, as will those that might be incorrectly reported by the webserver. If such a file is a downloaded file that is intended to be saved to disk, then any content that might have been altered by filtering, will be saved too, for these (probably very rare) cases.

Privoxy does not do FTP at all, only HTTP protocols.

# 4.18. Where can I find more information about Privoxy and related issues?

Other references and sites of interest to Privoxy users:

http://www.privoxy.org/, the Privoxy Home page.

http://www.privoxy.org/faq/, the Privoxy FAQ.

http://sourceforge.net/projects/ijbswa/, the Project Page for Privoxy on SourceForge.

http://config.privoxy.org/, the web-based user interface. Privoxy must be running for this to work. Shortcut: http://p.p/

http://www.privoxy.org/actions/, to submit "misses" to the developers.

http://cvs.sourceforge.net/cgi-bin/viewcvs.cgi/ijbswa/contrib/, cool and fun ideas from Privoxy users.

http://www.junkbusters.com/ht/en/cookies.html, an explanation how cookies are used to track web users.

http://www.junkbusters.com/ijb.html, the original Internet Junkbuster.

<u>http://www.waldherr.org/junkbuster/</u>, Stefan Waldherr's version of Junkbuster, from which Privoxy was derived.

http://privacy.net/analyze/, a useful site to check what information about you is leaked while you browse the web.

http://www.squid-cache.org/, a very popular caching proxy, which is often used together with Privoxy.

http://www.privoxy.org/developer-manual/, the Privoxy developer manual.

# 5. Troubleshooting

# 5.1. I just upgraded and am getting "connection refused" with every web page?

Either Privoxy is not running, or your browser is configured for a different port than what Privoxy is using.

The old Privoxy (and also Junkbuster) used port 8000 by default. This has been changed to port 8118 now, due to a conflict with NAS (Network Audio Service), which uses port 8000. If you haven't, you need to change your browser to the new port number, or alternately change the <a href="listen-address option">listen-address option</a> in Privoxy's <a href="main configuration file">main configuration file</a>.

# 5.2. I just added a new rule, but the steenkin ad is still getting through. How?

If the ad had been displayed before you added its URL, it will probably be held in the browser's cache for some time, so it will be displayed without the need for any request to the server, and Privoxy will not be in the picture. The best thing to do is try flushing the browser's caches. And then try again.

If this doesn't help, you probably have an error in the rule you applied. Try pasting the full URL of the offending ad into <a href="http://config.privoxy.org/show-url-info">http://config.privoxy.org/show-url-info</a> and see if it really matches your new rule.

#### 5.3. One of my favorite sites does not work with Privoxy. What can I do?

First verify that it is indeed a Privoxy problem, by toggling off Privoxy through <a href="http://config.privoxy.org/toggle">http://config.privoxy.org/toggle</a>, and then shift—reloading the problem page (i.e. holding down the shift key while clicking reload. Alternatively, flush your browser's disk and memory caches).

If still a problem, go to <a href="http://config.privoxy.org/show-url-info">http://config.privoxy.org/show-url-info</a> and paste the full URL of the page in question into the prompt. See which actions are being applied to the URL, and which matches in which actions files are responsible for that. Now, armed with this information, go to <a href="http://config.privoxy.org/show-status">http://config.privoxy.org/show-status</a> and select the appropriate actions files for editing.

You can now either look for a section which disables the actions that you suspect to cause the problem and add a pattern for your site there, or make up a completely new section for your site. In any case, the recommended way is to disable only the prime suspect, reload the problem page, and only if the problem persists, disable more and more actions until you have identified the culprit. You may or may not want to turn the other actions on again. Remember to flush your browser's caches in between any such changes!

Alternately, if you are comfortable with a text editor, you can accomplish the same thing by editing the appropriate actions file. Probably the easiest way to deal with such problems when editing by hand is to add your site to a { fragile } section in user.action, which is an alias that turns off most "dangerous" actions, but is also likely to turn off more actions then needed, and thus lower your privacy and protection more than necessary,

Troubleshooting actions is discussed in more detail in the <u>user-manual appendix</u>. There is also an <u>actions tutorial</u>.

5. Troubleshooting

# 5.4. After installing Privoxy, I have to log in every time I start IE. What gives?

This is a quirk that effects the installation of Privoxy, in conjunction with Internet Explorer and Internet Connection Sharing on Windows 2000 and Windows XP. The symptoms may appear to be corrupted or invalid DUN settings, or passwords.

When setting up an NT based Windows system with Privoxy you may find that things do not seem to be doing what you expect. When you set your system up you will probably have set up Internet Connection Sharing (ICS) with Dial up Networking (DUN) when logged in with administrator privileges. You will probably have made this DUN connection available to other accounts that you may have set—up on your system. E.g. Mum or Dad sets up the system and makes accounts suitably configured for the kids.

When setting up Privoxy in this environment you will have to alter the proxy set—up of Internet Explorer (IE) for the specific DUN connection on which you wish to use Privoxy. When you do this the ICS DUN set—up becomes user specific. In this instance you will see no difference if you change the DUN connection under the account used to set—up the connection. However when you do this from another user you will notice that the DUN connection changes to make available to "Me only". You will also find that you have to store the password under each different user!

The reason for this is that each user's set—up for IE is user specific. Each set—up DUN connection and each LAN connection in IE store the settings for each user individually. As such this enforces individual configurations rather than common ones. Hence the first time you use a DUN connection after re—booting your system it may not perform as you expect, and prompt you for the password. Just set and save the password again and all should be OK.

[Thanks to Ray Griffith for this submission.]

### 5.5. I cannot connect to any FTP sites. Privoxy seems to be blocking me.

Privoxy cannot act as a proxy for FTP traffic, so do not configure your browser to use Privoxy as an FTP proxy. The same is true for any protocol other than HTTP or HTTPS.

# 5.6. In Mac OSX, I can't configure Microsoft Internet Explorer to use Privoxy as the HTTP proxy.

Microsoft Internet Explorer (in versions like 5.1) respects system—wide network settings. In order to change the HTTP proxy, open System Preferences, and click on the Network icon. In the settings pane that comes up, click on the Proxies tab. Ensure the "Web Proxy (HTTP)" checkbox is checked and enter 127.0.0.1 in the entry field. Enter 8118 in the Port field. The next time you start IE, it should reflect these values.

# 5.7. In Mac OSX, I dragged the Privoxy folder to the trash in order to uninstall it. Now the finder tells me I don't have sufficient privileges to empty the trash.

Just dragging the Privoxy folder to the trash is not enough to delete it. Privoxy supplies an uninstall.command file that takes care of these details. Open the trash, drag the uninstall.command file out of the trash and double-click on it. You will be prompted for confirmation and the administration password.

5. Troubleshooting

The trash may still appear full after this command; emptying the trash from the desktop should make it appear empty again.

# 5.8. I get a completely blank page at one site. "View Source" shows only: <a href="https://www.source">https://www.source</a> shows only: <a href="https://www.source</a> shows only: <a href="https://www.source">https://www.source</a> shows only: <a href="https://www.source</a> show

This is often the result of a webserver using PHP that mishandles the request Privoxy sends to not compress the content (a PHP bug).

In a default configuration, Privoxy requests all data be sent "uncompressed". This is required for the page filtering and other magic to work. In some rare cases, the browser and webserver miscommunicate and the result is a totally blank page. The suggested work around is to selectively turn off this feature for sites that exhibit such behavior. Example section for user.action:

```
# Make exceptions for ill-behaved sites:
#
{-prevent-compression}
.example.com
```

5. Troubleshooting 20

# 6. Contacting the developers, Bug Reporting and Feature Requests

We value your feedback. In fact, we rely on it to improve Privoxy and its configuration. However, please note the following hints, so we can provide you with the best support:

### 6.1. Get Support

For casual users, our support forum at <u>SourceForge</u> is probably best suited: <a href="http://sourceforge.net/tracker/?group\_id=11118&atid=211118">http://sourceforge.net/tracker/?group\_id=11118&atid=211118</a>

All users are of course welcome to discuss their issues on the <u>users mailing list</u>, where the developers also hang around.

### 6.2. Report Bugs

Please report all bugs *only* through our bug tracker: <a href="http://sourceforge.net/tracker/?group\_id=11118&atid=111118">http://sourceforge.net/tracker/?group\_id=11118&atid=111118</a>.

Before doing so, please make sure that the bug has not already been submitted and observe the additional hints at the top of the <u>submit form</u>.

Please try to verify that it is a Privoxy bug, and not a browser or site bug first. If unsure, try toggling off Privoxy, and see if the problem persists. The appendix of the user manual also has helpful information on action debugging. If you are using your own custom configuration, please try the stock configs to see if the problem is configuration related.

If not using the latest version, chances are that the bug has been found and fixed in the meantime. We would appreciate if you could take the time to <u>upgrade to the latest version</u> (or even the latest CVS snapshot) and verify your bug, but this is not required for reporting.

### 6.3. Request New Features

You are welcome to submit ideas on new features or other proposals for improvement through our feature request tracker at <a href="http://sourceforge.net/tracker/?atid=361118&group\_id=11118">http://sourceforge.net/tracker/?atid=361118&group\_id=11118</a>.

### 6.4. Report Ads or Other Actions-Related Problems

Please send feedback on ads that slipped through, innocent images that were blocked, and any other problems relating to the default.action file through our actions feedback mechanism located at <a href="http://www.privoxy.org/actions/">http://www.privoxy.org/actions/</a>. On this page, you will also find a bookmark which will take you back there from any troubled site and even pre-fill the form!

New, improved default.action files will occasionally be made available based on your feedback. These will be announced on the <u>iibswa-announce</u> list and available from our the <u>files section</u> of our <u>project page</u>.

### 6.5. Other

For any other issues, feel free to use the mailing lists. Technically interested users and people who wish to contribute to the project are also welcome on the developers list! You can find an overview of all Privoxy—related mailing lists, including list archives, at: <a href="http://sourceforge.net/mail/?group\_id=11118">http://sourceforge.net/mail/?group\_id=11118</a>.

# 7. Privoxy Copyright, License and History

Copyright © 2001, 2002 by Privoxy Developers < developers@privoxy.org>

Some source code is based on code Copyright © 1997 by Anonymous Coders and Junkbusters, Inc. and licensed under the *GNU General Public License*.

Portions of this document are "borrowed" from the original Junkbuster (tm) FAQ, and modified as appropriate for Privoxy.

#### 7.1. License

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### 7.2. History

In the beginning, there was the <u>Internet Junkbuster</u>, by Anonymous Coders and <u>Junkbusters Corporation</u>. It saved many users a lot of pain in the early days of web advertising and user tracking.

But the web, its protocols and standards, and with it, the techniques for forcing users to consume ads, give up autonomy over their browsing, and for spying on them, kept evolving. Unfortunately, the Internet Junkbuster did not. Version 2.0.2, published in 1998, was (and is) the last official <u>release</u> available from <u>Junkbusters</u> <u>Corporation</u>. Fortunately, it had been released under the GNU <u>GPL</u>, which allowed further development by others.

So Stefan Waldherr started maintaining an <u>improved version of the software</u>, to which eventually a number of people contributed patches. It could already replace banners with a transparent image, and had a first version of pop—up killing, but it was still very closely based on the original, with all its limitations, such as the lack of HTTP/1.1 support, flexible per—site configuration, or content modification. The last release from this effort was version 2.0.2–10, published in 2000.

Then, some <u>developers</u> picked up the thread, and started turning the software inside out, upside down, and then reassembled it, adding many <u>new features</u> along the way.

The result of this is Privoxy, whose first stable release, 3.0, was released August, 2002.