

**NAME**

**pianod** — Multisource music daemon.

**SYNOPSIS**

```
pianod [ -v] [ -S] [ -p port] [ -P httpport] [ -s httpsport] [ -c clientdir]
[ -d directory] [ -n nobodyuser] [ -g groups]
```

**DESCRIPTION**

**pianod** is a daemon that plays music from multiple online services and local media. **pianod** provides a TCP/IP line-oriented socket interface and a Websockets interface, each allowing multiple clients to connect for status and control. The application protocol (command/response set) is identical between line-oriented and WebSocket connections.

The line-oriented protocol is accessible with `nc(1)` or `telnet(1)`; to port 4445. The included web-based client may be accessed by browsing the HTTP port (for example, `http://localhost:4446`). Line sessions may also be initiated on the HTTP or HTTPS ports via the greeting "HELO pianod".

**OPTIONS**

- v** Report version and build information, then exit. Flagged once, supplies only pianod version; twice, pianod configuration and library versions; thrice, details about library configurations.
- S** Shadow system users. Accounts are created on-demand by authenticating with their system username and password, if they are assigned a valid shell. Shadow accounts are purged during launch when the corresponding system account has been removed.  
  
If this option is subsequently disabled, already-created shadow accounts are left intact. If rebuilt with support for shadowing removed, accounts are not purged but will require new passwords (unless the user previously assigned an application password of their own volition).
- p** *port* The line port, default 4445. When set to 0, the line-oriented port is disabled.
- P** *port* The HTTP port, default 4446 or  $-p \textit{port} + 1$ . When set to 0, the HTTP server and Websockets are disabled.
- s** *port* The HTTPS port, default 4447,  $-p \textit{port} + 2$ , or  $-P \textit{port} + 1$ . When set to 0, or when the required X509 certificate and keys are not present, the HTTPS server and secure websockets are disabled.
- c** *clientdir* Location of files to be served via HTTP(S). The server only serves files (no server-side processing); this is intended to serve a web applet that will then communicate using Websockets.
- d** *directory* Sets the location for pianod configuration and data files.
- n** *nobodyuser* When invoked as root, the user to change to after startup. **pianod** assumes both the user and group id of the specified user. Defaults to nobody.
- g** *groups* When invoked as root, a comma-separated list of supplementary groups to assume after startup. Defaults to the supplementary groups of the nobodyuser (see `-n`).

**ENVIRONMENT**

- XDG\_CONFIG\_HOME** Sets the location of configuration files. Files are stored in a **pianod** directory within this.
- HOME** If **XDG\_CONFIG\_HOME** is not set, and **pianod** is not running as root, then files are stored in `$HOME/.config/pianod`.

**FILES**

Configuration file location is set by **XDG\_CONFIG\_HOME** or **HOME** (see environment, above). If run as root, **pianod** honors **XDG\_CONFIG\_HOME**, but skips **HOME** and uses **SYSCONFDIR**, which is set at compile time and is often `/etc` but varies by platform; MacPorts, for example, uses `/opt/local/etc`.

Whichever location is used, **pianod** stores the following configuration files in a **pianod** subdirectory thereof:

<code>startscript</code>	Commands executed with administrator privilege when <b>pianod</b> is launched.
<code>passwd.xml(.gz)</code>	This XML file contains a list of pianod users, their passwords (encrypted), privileges and preferences.
<code>x509-server.pem</code>	The X509 certificate used for HTTPS encryption.
<code>x509-server-key.pem</code>	The X509 key used for HTTPS encryption
<code>source-name.xml(.gz)</code>	Music source data files. Not all sources persist to data files. Some may use compression to reduce data storage; in this case, <code>.gz</code> will be appended.
<code>\$(datadir)/share/pianod/html</code>	Default location of web client files. <code>datadir</code> defaults to <code>/usr/local</code> for tarball installs, or <code>/opt/local</code> for MacPorts, but may vary depending on options set by configure script. Package managers that risk this being wrong should include <code>-c clientdir</code> in launch configuration files to set correct location.
<code>/etc/shells</code>	Read to determine if a user has a valid shell account.

**DIAGNOSTICS**

To enable logging, use the `-Z` and `-z` flags:

- `-Z value`  
Enables pianod logging for events indicated by *value*. Logs are sent to standard error, which may be redirected in usual manners. `0xfefd` is a good value; see the code for specific flags.
- `-z value`  
Like `-Z` but for Football events such as connects, disconnects, socket states and HTTP requests.

Logging preferences may also be changed at run-time via the `SET [FOOTBALL] LOGGING FLAGS` command.

**AUTHOR**

**pianod** was developed by Perette Barella <perette@deviousfish.com> and incorporates components from Lars-Dominik Braun and others. See the `COPYING` file for full information.

**COPYRIGHT**

**pianod** is Copyright the various authors and is available under the MIT license; see the `COPYING` file for full text.

**SEE ALSO**

`piano(1)`, `runmix(1)`, `shells(5)`