The Private Internet Access desktop client includes a command-line interface that can be used to control some functionality of the PIA client from scripts.

**Invoking `piactl`**

**Windows**

On Windows, specify the full path to `piactl.exe` or change into the PIA installation directory and invoke it. For example:

```
"C:\Program Files\Private Internet Access\piactl.exe" --help
"C:\Program Files\Private Internet Access\piactl.exe" connect
```

Or:

```
cd "C:\Program Files\Private Internet Access"
piactl --help
piactl connect
```

We do **not** recommend adding the PIA installation directory to PATH on Windows, as this would also add the DLLs shipped by PIA to PATH.

The rest of this article will use `piactl` in example commands, substitute the full path on Windows as needed.

**Mac and Linux**

On Mac and Linux, `piactl` is symlinked into `/usr/local/bin` at installation time if possible, so normally `piactl` is sufficient from a command line. For example:

```
piactl --help
piactl connect
```

This requires that:
There isn't already a file called piactl in /usr/local/bin

/usr/local/bin is already in your PATH (PIA does not alter PATH)

On Linux, the directory /usr/local/bin must already exist.

Otherwise, the full path to piactl can be used - on Mac:
/Applications/Private Internet Access.app/Contents/MacOS/piactl; on
Linux: /opt/piavpn/bin/piactl.

Help

piactl --help displays usage information.

Usage: piactl [options] command [parameters...]

Command-line interface to the PIA client. Some commands, such as connect, require that the graphical client is also running.

Options:
--timeout, -t <seconds> Sets timeout for one-shot commands.
--debug, -d Prints debug logs to stderr.
--help, -h Displays this help.
-v, --version Displays version information.

Arguments:
command Command to execute
parameters Parameters for the command

Commands:
connect
Connects to the VPN, or reconnects to apply new settings. The PIA client must be running to use this command. (The PIA daemon is inactive when the client is not running.)

disconnect
Disconnects from the VPN.

get
usage: get <type>
Get information from the PIA daemon.
Available types:
- connectionstate - VPN connection state
values: Disconnected, Connecting, StillConnecting,
Connected, Interrupted, Reconnecting, StillReconnecting,
DisconnectingToReconnect, Disconnecting
- debuglogging - State of debug logging setting
- portforward - Forwarded port number if available, or the
status of the request to forward a port
values: [forwarded port], Inactive, Attempting, Failed,
Unavailable
- region - Currently selected region (or "auto")
- regions - List all available regions
- vpnip - Current VPN IP address

monitor
usage: monitor <type>
Monitors the PIA daemon for changes in a specific setting
or state value.
When a connection is established, the current value is
printed.
When a change is received, the new value is printed.
Available types:
- connectionstate - VPN connection state
values: Disconnected, Connecting, Still Connecting,
Connected, Interrupted, Reconnecting, Still Reconnecting,
Disconnecting To Reconnect, Disconnecting
- debuglogging - State of debug logging setting
- portforward - Forwarded port number if available, or the
status of the request to forward a port
values: [forwarded port], Inactive, Attempting, Failed,
Unavailable
- region - Currently selected region (or "auto")
- vpnip - Current VPN IP address

resetsettings
Resets daemon settings to the defaults
(ports/protocols/etc.)
Client settings (themes/icons/layouts) can't be set with
the CLI.

set
usage: set <type> <value>
Change settings in the PIA daemon.
Available types:
- region - Select a region (or "auto")

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>--timeout</td>
<td>Specifies the timeout used for one-shot commands (default is 5 seconds). If the PIA daemon doesn't respond before this timeout, <code>piactl</code> exits unsuccessfully.</td>
</tr>
<tr>
<td>-&lt;sec&gt; / -t</td>
<td></td>
</tr>
<tr>
<td>--debug / -d</td>
<td>Displays debug output while executing <code>piactl</code>.</td>
</tr>
<tr>
<td>--help / -h</td>
<td>Displays the help text.</td>
</tr>
<tr>
<td>--version / -v</td>
<td>Displays the version of <code>piactl</code>.</td>
</tr>
</tbody>
</table>

**Commands**

`piactl` supports several commands:

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>connect</td>
<td>Causes PIA to connect to the VPN, if it isn't already connected.</td>
</tr>
<tr>
<td>disconnect</td>
<td>Causes PIA to disconnect from the VPN, if it is connected.</td>
</tr>
<tr>
<td>get &lt;type&gt;</td>
<td>Gets information about PIA settings or state.</td>
</tr>
<tr>
<td>resetsettings</td>
<td>Resets settings to the defaults. This only resets daemon settings (those that control the VPN connection), like protocols, ports, exclusions, etc. Graphical client settings (like the window type and icon theme) are not affected.</td>
</tr>
<tr>
<td>set &lt;type&gt; &lt;value&gt;</td>
<td>Sets some of the values obtainable with <code>get</code>.</td>
</tr>
<tr>
<td>monitor &lt;type&gt;</td>
<td>Monitors the PIA daemon for changes in a specific setting or state value.</td>
</tr>
</tbody>
</table>

The PIA client must be running to use the `connect` command. Otherwise, `piactl` will print a message and exit. This is currently required because the daemon is inactive when the graphical client is not running, and so the daemon can disconnect if the user logs out.

**get/set types**

<table>
<thead>
<tr>
<th>Type</th>
<th>Can set?</th>
<th>Description</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>connectionstate</code></td>
<td>No</td>
<td>VPN connection state</td>
<td>Disconnected, Connecting, Still Connecting, Connected, Interrupted, Reconnecting, Still Reconnecting, Disconnecting To Reconnect, Disconnecting</td>
</tr>
<tr>
<td>Type</td>
<td>Description</td>
<td>Values</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><code>debuglogging</code></td>
<td>Yes</td>
<td>Whether debug logging is enabled</td>
<td><code>true</code> or <code>false</code></td>
</tr>
<tr>
<td><code>portforward</code></td>
<td>No</td>
<td>When connected, the forwarded port, or the status of the request to forward a port</td>
<td>Forwarded port value, or state indicator: <code>Inactive</code>, <code>Attempting</code>, <code>Failed</code>, <code>Unavailable</code></td>
</tr>
<tr>
<td><code>region</code></td>
<td>Yes</td>
<td>The current selected region</td>
<td>Region identifier (see <code>get regions</code>) or <code>auto</code> for automatic region</td>
</tr>
<tr>
<td><code>regions</code></td>
<td>No</td>
<td>Lists all available regions</td>
<td>Lists <code>auto</code> and all region identifiers</td>
</tr>
<tr>
<td><code>vpnip</code></td>
<td>No</td>
<td>The current VPN IP address, if connected and the address is known</td>
<td>IP address, or <code>Unknown</code></td>
</tr>
</tbody>
</table>

**monitor** Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Values</th>
</tr>
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<tbody>
<tr>
<td><code>connectionstate</code></td>
<td>VPN connection state</td>
<td>Disconnected, Connecting, StillConnecting, Connected, Interrupted, Reconnecting, StillReconnecting, DisconnectingToReconnect, Disconnecting</td>
</tr>
<tr>
<td><code>debuglogging</code></td>
<td>State of debug logging setting</td>
<td>True or False</td>
</tr>
<tr>
<td><code>portforward</code></td>
<td>When connected, the forwarded port, or the status of the request to forward a port</td>
<td>[forwarded port], Inactive, Attempting, Failed, Unavailable</td>
</tr>
<tr>
<td><code>region</code></td>
<td>The current selected region</td>
<td>Currently selected region (or &quot;auto&quot;)</td>
</tr>
<tr>
<td><code>vpnip</code></td>
<td>The current VPN IP address, if connected and the address is known</td>
<td>Current VPN IP address</td>
</tr>
</tbody>
</table>

*Note* The current monitor command will continue running until it is manually stopped by pressing Ctrl+C  *Note*