Installing PAN-OS-PHP

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1. Mac OS X

You need to run PHP 5.4 or later (tested with 7.4 at the time of this writing). PHP 5.4 is available natively on Mac OS X 10.9.x.

The following command will help you to determine your PHP version : "php -v"

```
[] swaschkut$ php -v

PHP 7.1.23 (cli) (built: Feb 22 2019 22:19:32) ( NTS )

Copyright (c) 1997-2018 The PHP Group

Zend Engine v3.1.0, Copyright (c) 1998-2018 Zend Technologies
```

1.1. Check your GitHub account

Using github's utilities to maintain a fresh copy of PAN-OS-PHP by looking for the latest sources for you.

1.2. Install and setup GitHub Desktop for Mac

Download the client from https://desktop.github.com/ and install it. Start the client and it will first request for your Github Enterprise login.

1.3. Bookmark/Star PAN-OS-PHP project

In order to know when a new version is out and also look for the project easier in GitHub client, it's a good idea to Star/bookmark the project and eventually.
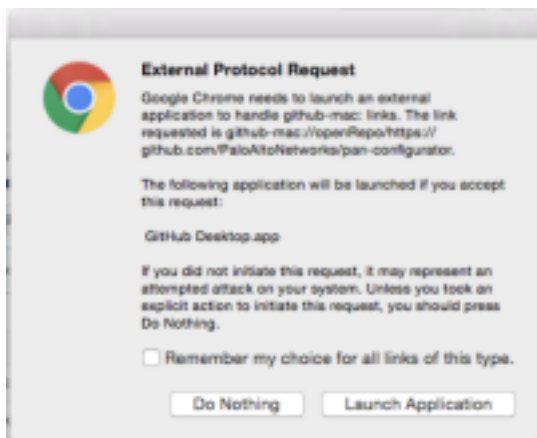
For this, go to the project page (https://github.com/PaloAltoNetworks/pan-os-php) and click on the "Star" button (see screenshot) and optionally on the "Watch" button to Watch it.

1.4. Clone PAN-OS-PHP repository

Still on PAN-OS-PHP Github homepage, click the Clone button like below :
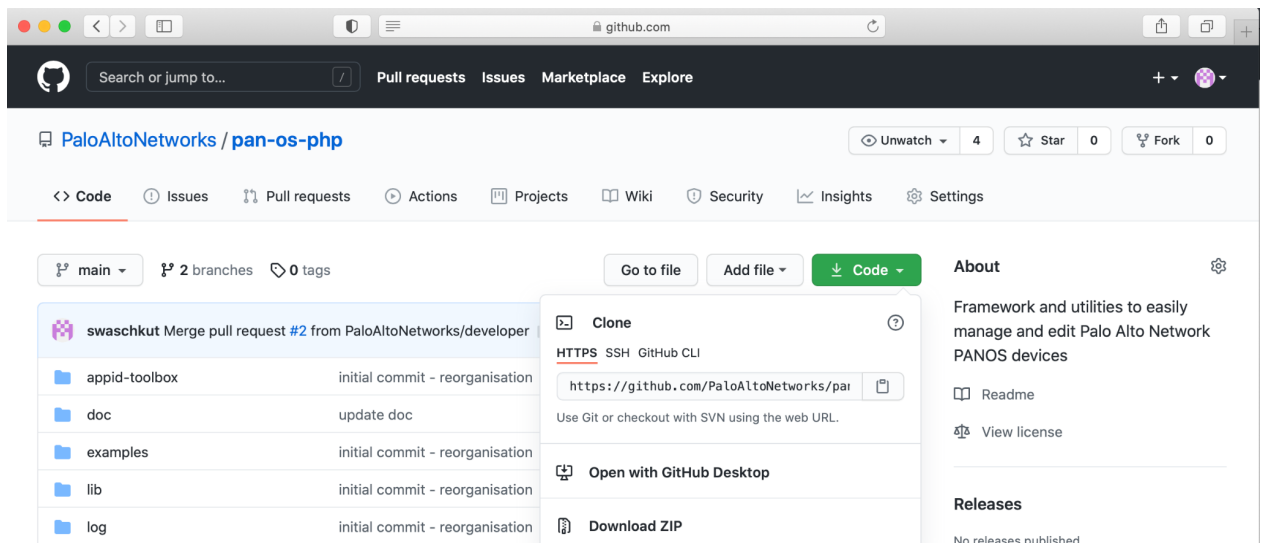
Chrome will warn you that it will open external program GitHub Desktop, click "Launch Application":

Github will then ask you in which location you want to install PAN-OS-PHP.
Suggestion : install it in your Documents/pstools/pan-os-php (like in screenshot):

Upon successful download of latest sources, GitHub Desktop should be showing something similar to this screenshot:

If you browse to the folder where you install PAN-OS-PHP, you should see its file structure:
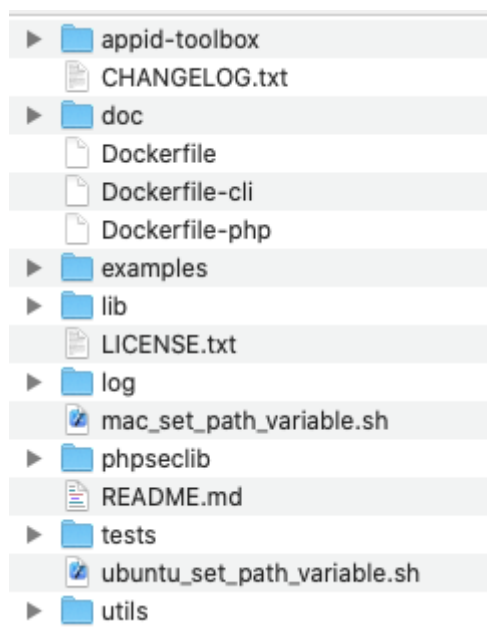
1.5. Add PAN-OS-PHP install directory to PHP include_dir / Load PAN-OS-PHP alias for your CLI

Please execute the bash script:

```
sh mac_set_path_variable.sh
```

Below the different parts are explained what the bash script is doing:
Of course it always depends where you copied PAN-OS-PHP into your environment.

```
sudo cp –f /etc/php.ini.default /etc/php.ini

sudo chmod u+w /etc/php.ini

echo "include_path = \".:/php/includes:/Users/$USER/Documents/pstools/pan-os-php\"" | sudo tee-a
    /etc/php.ini
```

PHP stores its configurations in "/etc/php.ini". If this file does not exist yet on your system, you need to copy the default template, you can do this from CLI. You can also use the following CLI to overwrite your existing PHP configuration:

If you want to do this manually, edit /etc/php.ini with your favorite editor (be careful of the root privilege required) to edit property "include_path" to add the path to pan-configurator.
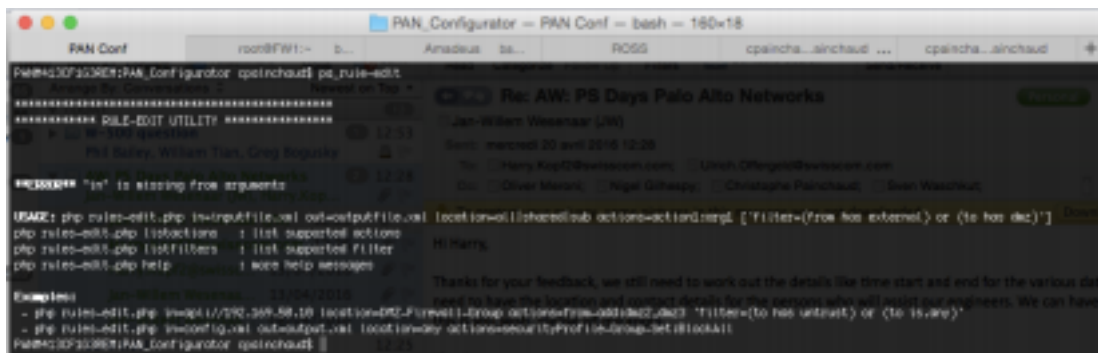
You can test that you installed everything properly by testing the following command line:

```
php -r "require('lib/pan_php_framework.php');print \"OK INSTALL
SUCCESSFUL\n\";" OK INSTALL SUCCESSFUL
```

It is very convenient to load the PAN-OS-PHP toolset from any location in your folder. For this the script added an alias file every time you start a new CLI console. The script above executed the following command-line to add it in your ~/.profile :

```
echo "source \"/Users/$USER/Documents/pstools/pan-os-php/utils/alias.sh\"" >> ~/.profile
```

Now open a new CLI console (to reload all your environment) and try to run command "pa_rule-edit":

2. Windows

Windows users must go through the same steps as Mac OS X users but need to start with a different repository

2.1. Download via Github Desktop

https://github.com/PaloAltoNetworks/pan-os-php-windows-package

2.2. Download all git submodules

Run script "update-pan-os-php.bat".

2.3. Execute setup script

Run script "run-once-to-setup.bat".

2.4. Run PAN-OS-PHP source code update script

Run script "update-pan-os-php.bat"

2.5. Test it

Windows zip package comes with a utility called Console2 which offers a good alternative to MS- DOS shell, plus it has all environment variables preset.

Run "console.bat" to start it:

Run the following command "pa_rule-edit" and check that it actually works:

```
* access from anywhere:
*
* pa_rule-edit, pa_address-edit, pa_service-edit
* pa_upload-config

~>pa_rule-edit


************************************************
************ RULE-EDIT UTILITY ****************



**ERROR** "in" is missing from arguments

USAGE: php rules-edit.php in=inputfile.xml out=outputfile.xml location=all|shared|sub actions=action1:arg1 ['filter=(from ha
s external) or (to has dmz)']
php rules-edit.php listactions   : list supported actions
php rules-edit.php listfilters   : list supported filter
php rules-edit.php help          : more help messages

Examples:
 - php rules-edit.php in=api://192.169.50.10 location=DMZ-Firewall-Group actions=from-add:dmz2,dmz3 'filter=(to has untrust)
 or (to is.any)'
 - php rules-edit.php in=config.xml out=output.xml location=any actions=securityProfile-Group-Set:BlockAll
~>
```

3. More documentation

- PAN-OS-PHP GitHub homepage:
  https://github.com/PaloAltoNetworks/pan-os-php
- PAN Live Community page for PAN-OS-PHP:
  https://live.paloaltonetworks.com/t5/API-Articles/PAN-Configurator-scripting-li
  brar y-and-utilities/ta-p/52163
- PAN Live Community helper page for "rules-edit":
  https://live.paloaltonetworks.com/t5/api-articles/rules-edit-php-to-manage-edit-
  export-rules-from-cli/ta-p/53321