
ArchMap Documentation

Release

James Fawcus-Robinson, Johannes Löthberg

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The ArchMap project creates a map of Arch Linux users all over the world.

About

In this section:

- [ArchMap](#)
- [Synopsis](#)
- [Use](#)
- [License](#)
- [External links](#)

1.1 ArchMap

archmap.py generates *geojson* and *kml* files which can be used to display a map of Arch Linux users, it does this by parsing data from the [ArchWiki](#).

One rendering of the data is on a map over at [mapbox.com](#) - This is updated manually so it may be out of date.

Have a look at the [ArchMap](#) page on the ArchWiki for more information about this project.

The documentation is hosted by [readthedocs.org](#) .

1.2 Synopsis

By default, running `./archmap.py` will output three files to `/tmp`, `users.txt`, `output.geojson` and `output.kml`, this can be overridden by either using the config file or by the command line switches.

The config file should be placed in `/etc/archmap.conf`, this can be overridden by using `--config <path-to-config-file>`

1.3 Use

Running `./archmap.py --help` will display this help message:

```
archmap.py [-h] [-v] [--config FILE] [--users FILE] [--geojson FILE] [--kml FILE] [--csv FILE] [--ge
```

optional arguments:

```
-h, --help          show this help message and exit
```

```
-v, --verbose      Show info messages
--config FILE      Use an alternative configuration file instead of /etc/archmap.conf
--users FILE       Use FILE for a list of users instead of getting the list from the ArchWiki
--geojson FILE     Output the geojson to FILE, use 'no' to disable output
--kml FILE         Output the kml to FILE, use 'no' to disable output
--csv FILE         Output the csv to FILE, use 'no' to disable output
--geojsonio        Send the geojson to http://geojson.io for processing
```

1.4 License

Everything in the [ArchMap repo](#) is **unlicensed**.

All of the files that this script can generate (`users.txt`, `output.geojson`, `output.kml`, and `output.csv`) will contain text from the [ArchWiki](#) which puts them under the [GNU Free Documentation License 1.3 or later](#).

1.4.1 Unlicense

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For more information, please refer to [<http://unlicense.org/>](http://unlicense.org/)

1.5 External links

- Project page on the ArchWiki: <https://wiki.archlinux.org/index.php/ArchMap>
- The list of user data: <https://wiki.archlinux.org/index.php/ArchMap/List>
- Project talk on the Arch forums <https://bbs.archlinux.org/viewtopic.php?id=22518>
- Repository on GitHub: <https://github.com/maelstrom59/ArchMap>

Install

In this section:

- System Requirements
- How-to
- Support
- Release Notes

2.1 System Requirements

Python 3.4 - If your running Arch, this shouldn't be a problem!

- `geojson`
- `simplekml`

If you want to be able to send the geojson to `geojson.io` via a GitHub gist:

- `github3.py`
- `geojsonio.py`

2.2 How-to

Packaging is currently being worked on...

2.2.1 Manual git install

This will make a directory `ArchMap/` with a link to `archmap.py` in it. It uses *git* and *pip* to resolve the dependencies.

Download this script:

```
echo -e "==> Make and cd to ./ArchMap\n"
mkdir ArchMap && cd ArchMap

echo -e "\n\n==> Download the ArchMap repo from GitHub\n"
git clone https://github.com/maelstrom59/ArchMap.git ArchMap-git
```

```
echo -e "\n\n==> Download the geojsonio.py repo from GitHub so you can use --geojsonio\n"
git clone https://github.com/jwass/geojsonio.py.git geojsonio.py-git

echo -e "\n\n==> Install the required packages\n"
pip install -r ArchMap-git/requirements.txt

echo -e "\n\n==> Link the geojsonio module into the ArchMap-git directory\n"
cd ArchMap-git && ln -s ../geojsonio.py-git/geojsonio/geojsonio.py

echo -e "\n\n==> Make an easy link to archmap.py\n"
cd ../ && ln -s ArchMap-git/archmap.py

echo -e "\n\n==> Test by printing the help message\n"
./archmap.py --help
```

2.3 Support

External links

2.4 Release Notes

In this section:

- Basic usage
- Advanced usage

3.1 Basic usage

If you would just like to get up and running, have a look at:

3.1.1 Examples

Help

The **-help** flag will output a help message with all of the available options:

```
./archmap.py --help
```

Basic use

By default, running **./archmap.py** will output three files to **/tmp**, **users.txt**, **output.geojson** and **output.kml**, this can be overridden by either using the config file or by the following command line switches.

Using the **-verbose** flag will print information on what the script is doing:

```
./archmap.py --verbose
```

You can specify the output location for the geojson, kml and csv:

```
./archmap.py --geojson /tmp/archmap.geojson --kml /tmp/archmap.kml --csv /tmp/archmap.csv
```

geojson.io

<http://geojson.io> is a website that allows you to visualise geojson on an OpenStreetMap map, it also has options for converting the geojson to a range of other formats.

Using the **-geojsonio** flag will send the geojson to the site via a GitHub gist.

```
./archmap.py --geojsonio
```

Logging

If the script is run on a system that uses systemd, it will log to it using the syslog identifier - “ArchMap”.

You can review all logs generated by **archmap.py** by using:

```
journalctl SYSLOG_IDENTIFIER=ArchMap
```

3.2 Advanced usage

If you would like to use any of this code, have a look at:

3.2.1 Use the code

Logging

`archmap.message(message, verbosity, systemd=False)`

This function takes a string in `message`. If `verbosity >= 1` it will print out `message`. If `systemd` is not `False` (the system uses the systemd journal), it will log to it using `message`.

Getting and parsing user data

`archmap.get_users(output_file, verbosity)`

This function parses users from the ArchWiki and writes it to `output_file`

If `verbosity >= 1` it will print out the string passed to `message()`.

`archmap.parse_users(users_file, verbosity)`

This function parses the wiki text from `users_file` into it’s components. It returns a list of lists, each `sub_list` has 4 elements: `[latitude, longitude, name, comment]`

If `verbosity >= 1` it will print out the string passed to `message()`.

Output generators

`archmap.make_geojson(parsed_users, output_file, send_to_geojsonio, verbosity)`

This function reads the user data supplied by `parsed_users`, it then generates geojson output and writes it to `output_file`.

`parsed_users` should be a list of lists, each `sub_list` should have 4 elements: `[latitude, longitude, name, comment]`

If you set `send_to_geojsonio` to `True` it will send the raw geojson to `geojson.io` via a GitHub gist.

If `verbosity >= 1` it will print out the string passed to `message()`.

`archmap.make_kml(parsed_users, output_file, verbosity)`

This function reads the user data supplied by `parsed_users`, it then generates kml output and writes it to `output_file`.

`parsed_users` should be a list of lists, each `sub_list` should have 4 elements: `[latitude, longitude, name, comment]`

If `verbosity >= 1` it will print out the string passed to `message()`.

`archmap.make_csv(parsed_users, output_file, verbosity)`

This function reads the user data supplied by `parsed_users`, it then generates csv output and writes it to `output_file`.

`parsed_users` should be a list of lists, each `sub_list` should have 4 elements: `[latitude, longitude, name, comment]`

If `verbosity >= 1` it will print out the string passed to `message()`.

Contribute

In this section:

- [Roadmap](#)
- [Contributing](#)
- [Development](#)

4.1 Roadmap

- Work on packaging
- Use GitHub pages to build a homepage
 - Use [Leaflet](#) to get and display coords on a ...
 - [MapBox](#) map

4.2 Contributing

Contributions are always welcome! Here are a few ways you could contribute:

- Bug fixes
- New features
- Testing on different platforms
- Documentation

Support: [External links](#)

4.3 Development

All of the following commands assume you are starting in the root ArchMap directory.

4.3.1 System Requirements

In addition to the *System Requirements* for the install, the following packages are required:

- To generate these docs:
 - sphinx
- For packaging:
 - setuptools
 - wheel

4.3.2 Documentation

```
cd docs/  
make html
```

4.3.3 Packaging

kyrias has worked on the [Arch Linux packaging](#).

Python packaging is currently in the works, have a look at this [issue](#) if you can help in any way.

```
python setup.py bdist_wheel
```

Indices and tables

- *genindex*
- *modindex*
- *search*

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