
mge_downloader

Release 0.1.0

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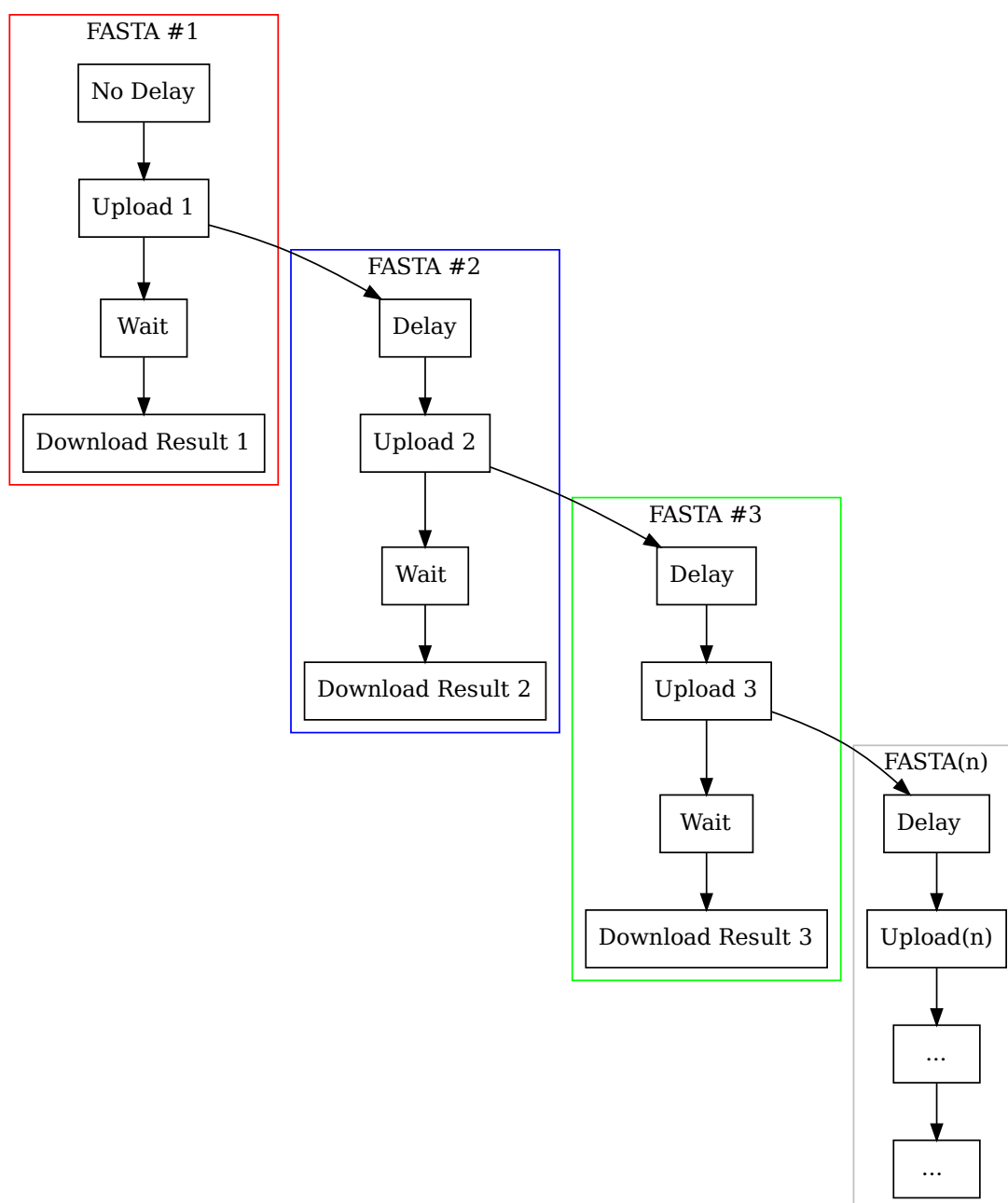
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Uploads FASTA files to <https://cge.cbs.dtu.dk/services/MobileElementFinder/> and downloads the results. Uploads are staggered in order to prevent overloading of the server. Results are fetched after a certain wait time. The system uses Selenium, a browser control system. I chose this system as the uploads on the MEFinder website rely on Javascript queries and can easily be controlled with Selenium. All of this could probably be optimized. However, because only a few instances are run at the same time and the program is waiting most of the run-time, this would offer little advantage.

Please adhere to the minimum time between requests in order to not overload the server.

WORKFLOW



QUICK USAGE

Upload all fasta files from current directory and download results:

```
$ python mge_downloader --outdir outdir *.fna
```


DETAILED USAGE

```
$ python main.py --help
===== mgefinder 0.1.0 =====
usage: main.py [-h] --outdir directory [--time-to-next minutes] [--time-to-fetch-
↪result minutes] fasta files) [fasta file(s) ...]

Upload fasta file to mfinder and download results.

positional arguments:
  fasta file(s)          fastA files.

optional arguments:
  -h, --help            show this help message and exit
  --outdir directory    directory that should be used to place the output.
  --time-to-next minutes
                        Number of minutes to wait before sending next fasta file
  --time-to-fetch-result minutes
                        Number of minutes to wait before fetching the result

Example: python mge_downloader.py --outdir dir1 *.fna
```

3.1 Defaults

- `--time-to-next minutes`: 5 min
- `--time-to-fetch-result minutes`: 30 min

3.2 Minimum values

- `--time-to-next minutes`: 5 min
- `--time-to-fetch-result minutes`: 5 min

INSTALLATION

4.1 Windows

You will need to install Chrome, Chromedriver and Selenium

- Install Chrome from <https://www.google.com/chrome/>
- Install Chromedriver from <https://sites.google.com/a/chromium.org/chromedriver/downloads>
- Install Python (3.7+) from <https://www.python.org/downloads/>
- Install Selenium bindings through the command line

```
> pip install selenium
```

4.2 Linux

4.2.1 Ubuntu

You will need to install Chrome, Chromedriver and Selenium.

Follow these instructions: <https://gist.github.com/ziadoz/3e8ab7e944d02fe872c3454d17af31a5>

4.2.2 ARCH

You will need to install Chrome, Chromedriver and Selenium.

```
$ sudo pacman -Syu  
$ sudo pacman -S chromium python python-selenium
```

Chromedriver can be installed through the AUR using *yay*

```
$ sudo pacman -S yay  
$ yay -Syu  
$ yay -S chromedriver
```


INDICES AND TABLES

- `genindex`
- `search`