

Dockerize SMILE

- [How to Install Docker](#)
- [Acquire/Configure Credentials](#)
- [How to Run](#)
 - [You must Download the docker compose YAML file](#)
 - [To Start](#)
 - [To Stop](#)
 - [Update](#)
 - [To remove Existing volume](#)
- [Appendix:](#)
 - [SMILE and BAE images on Docker Hub](#)
 - [Architectures](#)
 - [Docker vs Hubzero Tool mode](#)
 - [Increase Memory and CPU allocation for Docker](#)

How to Install Docker

Follow the instructions here: <https://docs.docker.com/get-docker/>

Acquire/Configure Credentials

- Contact Social Media Macroscopic development team to acquire current SMILE credentials [Chen Wang](#)
- Alternatively, you can set up your own set of credentials by configuring the below shell script.

Shell script:

```

# system setting
export DOCKERIZED=true

# if use AWS algorithm, then you must use a static IP address
export LOCAL_ALGORITHM=true
export HOST_IP=<your host IP address>
export HOME=<your path on host machine>
export BUCKET_NAME=macroscope-smile

# single user version vs multiple users
export SINGLE_USER=true

# create mounted volumes on host machine
mkdir -p ${HOME}/smile_data
mkdir -p ${HOME}/smile_data/${BUCKET_NAME}
mkdir -p ${HOME}/smile_user
mkdir -p ${HOME}/smile_tag

# email notification (To enable notification, uncomment below and put down valid email server information)
# export EMAIL_HOST=
# export EMAIL_PORT=
# export EMAIL_FROM_ADDRESS=
# export EMAIL_PASSWORD=

# put down your own RANDOM keys at least 8 digits;
# if wish to align with your AWS deployment, please put down AWS access key and secret (Not required if
LOCAL_ALGORITHM=true)
export AWS_ACCESSKEY=AAAAAAAAAAAAAAAAAAAAAA
export AWS_ACCESSKEYSECRET=BBBBBBBBBBBBBBBBBBBBBBBBBBBBBB

# social media platforms
export REDDIT_CLIENT_ID=
export REDDIT_CLIENT_SECRET=
export TWITTER_CONSUMER_KEY=
export TWITTER_CONSUMER_SECRET=

# export
export BOX_CLIENT_ID=
export BOX_CLIENT_SECRET=
export DROPBOX_CLIENT_ID=
export DROPBOX_CLIENT_SECRET=
export GOOGLE_CLIENT_ID=
export GOOGLE_CLIENT_SECRET=

# start
docker-compose -f docker-compose-smile.yml up

# stop
# docker-compose -f docker-compose-smile.yml down -v

```

Note:

- You need to place your host IP address to HOST_IP variable.
- The HOME variable will be the location to hold persistent data, such as user information, social media and analytics output, tags and etc.

How to Run

All images you needed to run the stack have already been pushed to Docker Hub: <https://hub.docker.com/orgs/socialmediamacroscope/repositories>
All you need is the YAML configuration file to run.

You must Download the docker compose YAML file

compose yaml file here:



docker-co...smile.yml

To Start

run the prewritten shell script:

```
sh docker-command-smile.sh
```

or

export all environment variables and then

```
docker-compose -f docker-compose-smile.yml up
```

Then you should be able to access SMILE at **http://<your IP address>:8001**

To Stop

```
docker-compose -f docker-compose-smile.yml down -v
```

Update

```
docker-compose -f docker-compose-smile.yml pull
```

To remove Existing volume

```
docker volume rm {volume name. e.g.rabbitmq_smile_content_data}
```

Appendix:

SMILE and BAE images on Docker Hub

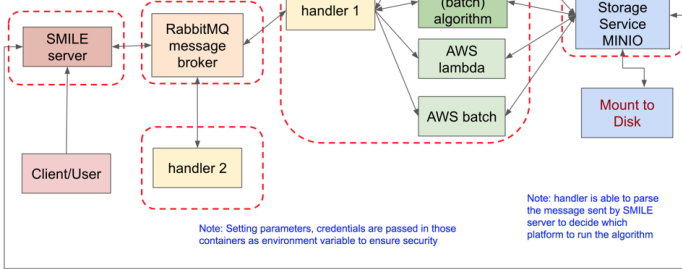
<https://hub.docker.com/orgs/socialmediamacroscope/repositories>

Architectures

Containerization

SMILE

Note: One queue/handler per algorithm



Docker vs Hubzero Tool mode

`export DOCKERIZED=true` Dockerized version

`export DOCKERIZED=false` Hubzero Tool version, can be run by command `npm start`

Increase Memory and CPU allocation for Docker

Some of the analysis algorithms are very memory intensive. Make sure you adjust memory and CPU for Docker to achieve the optimal performance. Make sure you set values smaller than your host machine.

