
soit Documentation

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Soit is a CLI tool that verifies if a container image satisfies certain set of predicates and can be then used as the custom image for the [spark-operator](#).

CHAPTER 1

spark-operator-image-tool

[Build status](#) [License](#) [PyPI version](#) [Docs](#)

Purpose of this tool is to verify if given container image is compatible with [spark-operator](#).

1.1 Installation

```
pip3 install soit --user
```

1.2 Quick Start

```
soit --image quay.io/jkremser/openshift-spark --tag 2.4.0
```

1.2.1 Demo

[Watch the full asciicast](#)

1.2.2 Local Development

Install the modules:

```
pip3 install -r requirements.txt --user
```

Run the app:

```
python3 soit/main.py
```

1.2.3 Other

This tool is based on a library for interactive testing of container images called [conu](#).

CHAPTER 2

Basic Mode

When running the soit in the basic mode (default) and you image passes the test, you should end-up with following output:

```
[ ✓ ] ... File /launch.sh should be present on the image
[ ✓ ] ... File /launch.sh does contain SPARK_METRICS_ON
[ ✓ ] ... File /launch.sh does contain SPARK_MASTER_ADDRESS
[ ✓ ] ... File /entrypoint should be present on the image
[ ✓ ] ... Directory /opt/spark should be present on the image
[ ✓ ] ... Directory /opt/spark/conf/ is present on the image
[ ✓ ] ... Default config spark-defaults.conf is on the right place
[ ✓ ] ... File /opt/spark/bin/spark-class should be present on the image
[ ✓ ] ... File /opt/spark/RELEASE should be present on the image
[ ✓ ] ... The image should have the curl installed
[ ✓ ] ... The image should have the bash installed
```


CHAPTER 3

Full Mode

To run the `soit` in the full mode, add the `-f` or `--full` switch. When running the `soit` in the full mode, you should be able to see the checks from the basic mode + following:

```
...
[ ✓ ] ... It should be possible to start the master.
[ ✓ ] ... Master should start the web ui on port 8080
[ ✓ ] ... Master should be alive.
[ ✓ ] ... It should be possible to start the worker.
[ ✓ ] ... Worker should start the web ui on port 8081
[ ✓ ] ... Worker web ui should contain the master's ip
[ ✓ ] ... In the master's log file there should be worker registration message
[ ✓ ] ... In the worker's log file master registration should be mentioned
```


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Usage

```
λ pip3 install soit --user
λ soit --help
Usage: soit [OPTIONS]

    Simple verification tool that check the compatibility with Spark Operator

Options:
  -i, --image TEXT  Container image with Spark.
  -t, --tag TEXT    Specific tag of the image.
  -v, --verbose     Verbose output.
  -f, --full        Full mode including spawning master and worker and testing
                    if they can connect.
  -s, --silent      Do not output anything to standard output.
  --help            Show this message and exit.
```


CHAPTER 6

Basic Info

You can check the [introduction](#) section to see it in action. It can operate in the basic mode and in the full mode. The full mode contains some additional checks for the image that tests if the Spark master and worker can connect to each other, while the basic mode contains tests that verify if the image has certain paths available on the file system, whether or not it has `Bash` and `curl` installed, etc. For full list of the checks, consult [Checks](#).

CHAPTER 7

Contributions

The project is open-source and available on Git Hub in this [repository](#). Feel free to either open an issue or send the pull request to make this tool even better.

Tip: Make the so it part of your tool chain by running in the silent mode and rely on the return codes. To do that, add the `-s` or `-silent` switch
