
runPyNB

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runPyNB is a quick and dirty utility to run (and time) Jupyter notebooks from command-line and makefiles.

QUICKSTART

Install from PyPI

```
pip install runpynb
```

General usage: `runpynb <notebook(s)> [options]` (“`.ipynb`” not required)

- `runpynb`: Run all notebooks in directory.

USAGE

- `runpynb <notebook(s)> -q`: Run quietly (-q).
- `runpynb <notebook(s)> -qs`: Run quietly (-q) as a sequence of workflow (-s). Errors (eg in `error.ipynb`) will break the workflow.
- `runpynb <notebook(s)> -o`: Save output as separate notebook (-o), instead of overwriting existing notebook(s).

OPTIONS

```
usage: runpynb [-h] [-t TIMEOUT] [-s] [-o] [-v VERSION] [-q] [notebooks ...]
```

Run (and time) Jupyter notebooks silently in command-line.

positional arguments:

notebooks List of Jupyter notebooks (*.ipynb) to be run
 (default=all notebooks in path).

optional arguments:

-h, --help show this help message and exit
-t TIMEOUT, --timeout TIMEOUT
 Seconds until a cell in the notebook timesout, which
 raises a Timeouterror exception (default is 3000=5
 mins).
-s, --sequence Sequence implicit in notebook lists. If error occurs
 somewhere, stop entire pipeline.
-o, --output Save output as a separate notebook with "-out"-suffix
 (e.g. *-out.ipynb) instead of overwriting existing
 file.
-v VERSION, --version VERSION
 Version of notebook to return (Default=No conversion).
 Notebook will be converted if necessary.
-q, --quiet Be quiet and don't print messages (including run
 time). Caution: Does not suppress error messages.

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STATUS

MORE ON THIS PACKAGE

This is a lightweight package that wraps around the official Jupyter [nbformat](#) and [nbconvert](#) modules.

My workflow involves using [Jupyter notebooks](#) to clean, and analyze data. I use this utility to run notebooks silently from the command-line and [Makefiles](#) (without converting from `.ipynb` files to `.py` files).

Related packages are [guoquan/runnb](#) and [vinayak-mehta/nbcommands](#) with a planned enhancement `nbtimer` to run Jupyter notebooks from command-line.

USAGE WITH MAKEFILES

A minimal workflow where `get-data.ipynb` takes 5000 seconds to prepare `data.csv`. And where `analyze.ipynb` uses `data.csv` to produce `output.png`.

```
.DEFAULT_GOAL := output.png

data.csv: get-data.ipynb
    runpynb $^ -t 5000

output.png: analyze.ipynb data.csv
    runpynb $<
```


KNOWN ISSUES

- [Build fails](#) with Python 3.6 in Windows OS.
- Notebooks with long execution time will require the `timeout` option (eg `runpynb notebook.ipynb -t 10000`).

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LICENSE

This package is licensed under the [MIT License](#).