
quicklogging Documentation

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CHAPTER 1

Resources

- doc: - read the doc on [readthedocs](#) (github rst is broken)
- source code: on [github](#)
- package:
- ci tests:

What is quicklogging

quicklogging is a Python `logging` wrapper to

- remove a bit of logging boilerplate,
- redirect print output.

quicklogging transparently provides a logger with a name relevant to the code at hand:

Important: The name of the logger is the name of the module making the call.

For instance, if you log from `project/models/chair.py`, your logger will be named `project.models.chair`.

This is a very important feature:

Advantage #1 of this naming scheme

the *configuration* of the `logging.Logger`s and handlers is much easier —muting, changing verbosity for a particular piece of code etc

Advantage #2

we can provide a `quicklogging.catch_prints()` and a `quicklogging.warn_prints()` functionality to catch calls to `print()` from specific modules (typically: the module you're editing).

CHAPTER 3

Licence, original authors

- MIT (see file `LICENCE`).
- authors: [majerti](#) - Feth AREZKI

4.1 Python versions

I tested 3.5 to 3.10 without annoyances.

Cannot test, but should work because I don't know of API changes:

- Python 2.7: *testing* NOT ok (Python 2.7 doesn't have `importlib.abc.SourceLoader`)

4.2 Libs required

None ! unless you're running the tests (then you need `stringimporter`). . So I've got this easy badge: .

(if toctree is not displayed, then build the docs with sphinx or read them on readthedocs : .

5.1 How to use

The following examples assume a log format of

```
[%(name)s - %(level)s] %(message)s
```

You may want to read the *Annex: Quick survival guide with the logging module* to achieve this.

5.1.1 Quick, log once

Say you're in `myapp/models/music.py`

```
import quicklogging
quicklogging.error("Hello world")
```

Your output will be:

```
[myapp.models.music - ERROR] Hello world
```

5.1.2 Log twice

Actually you're logging more than once in `myapp/views/music.py` and want to optimize:

```
import quicklogging
logger = quicklogging.get_logger()
logger.debug("Howdy?")
```

This produces:

```
[myapp.views.music - DEBUG] Howdy?
```

then,

```
logger.warning("plop")
```

produces:

```
[myapp.views.music - WARNING] plop
```

5.2 Task oriented doc

Note: Many functions take a *stackoverhead* param, which is documented in `quicklogging.base.get_logger()`.

5.2.1 Fetch a logger

Use `quicklogging.base.get_logger()` also available as `quicklogging.get_logger()`.

Then, you can use the logger normally.

5.2.2 Available log wrappers

If logging multiple times, it is slower to use these than to use `quicklogging.get_logger()` and log with received object.

- `quicklogging.debug()` → `logging.debug()`
- `quicklogging.info()` → `logging.info()`
- `quicklogging.warning()` → `logging.warning()`
- `quicklogging.error()` → `logging.error()`
- `quicklogging.critical()` → `logging.critical()`
- `quicklogging.exception()` → `logging.exception()`

5.2.3 print wrapping functionality

quicklogging provides

- `quicklogging.catch_prints()`
- `quicklogging.warn_prints()`

5.3 Source doc

5.3.1 Module quicklogging

(logging with a bit of cozyness)

log wrappers

Supplied convenience functions fetch a logger with the name of the module from which you're calling them.

`quicklogging.debug(*args, **kwargs)`
wrapper for `logging.Logger.debug()`

Variadic parameters: see `logging.Logger.debug()`

Parameters `stackoverhead(int)` – see `quicklogging.base.get_logger()`

`quicklogging.info(*args, **kwargs)`
wrapper for `logging.Logger.info()`

Variadic parameters: see `logging.Logger.info()`

Parameters `stackoverhead(int)` – see `quicklogging.base.get_logger()`

`quicklogging.warning(*args, **kwargs)`
wrapper for `logging.Logger.warning()`

Variadic parameters: see `logging.Logger.warning()`

Parameters `stackoverhead(int)` – see `quicklogging.base.get_logger()`

`quicklogging.error(*args, **kwargs)`
wrapper for `logging.Logger.error()`

Variadic parameters: see `logging.Logger.error()`

Parameters `stackoverhead(int)` – see `quicklogging.base.get_logger()`

`quicklogging.critical(*args, **kwargs)`
wrapper for `logging.Logger.critical()`

Variadic parameters: see `logging.Logger.critical()`

Parameters `stackoverhead(int)` – see `quicklogging.base.get_logger()`

`quicklogging.exception(*args, **kwargs)`
wrapper for `logging.Logger.exception()`

Variadic parameters: see `logging.Logger.exception()`

Parameters `stackoverhead(int)` – see `quicklogging.base.get_logger()`

print handlers

`quicklogging.catch_prints(catch_module=<object object>, catch_all=False, include_children=True, logfunc=<function info>)`
configure the print() catching: redirects calls to a logger

By default, only catches calls to print() from logger

- named after the calling module

- children of this logger

Note: API discussion welcome.

You understand the API is not stable.

Parameters

- **catch_module** (*string*) – include children of logger designed by name
- **catch_all** (*bool*) – should catch all print() disregarding where they're from ?

Warning: take care of logging propagation (`Logger.propagate()`)

- **logfunc** (*function*) – function to use for logging messages

Possible extension ideas:

- wrap arbitrary output stream
- different log functions depending on regex applied on messages
- make it configurable from config file
- allow exclusion of specific modules

`quicklogging.warn_prints (catch_all=False)`

Activate warning when print is called

Parameters **catch_all** (*bool*) – defaults to False, ie. defaults to only warn about current module, ignoring imports

5.3.2 Module `quicklogging.base`

`quicklogging.base.get_logger (stackoverhead=0)`

wrapper for `getLogger`

Typical use, say you're in `project/module/submodule.py` and you want a logger.

```
l = get_logger()
print(l)
```

```
<logging.Logger at ... >
```

```
print(l.name)
```

```
project.module.submodule
```

Parameters **stackoverhead** (*int*) – defaults to 0. How deep to look in the stack for fetching the logger name.

Returns a logger named after the module at depth `stackoverhead`.

Return type `logging.Logger`

`quicklogging.base._log_with_level` (*func_name*, *args, **kwargs)

Internal convenience function to log with appropriate level

This function is called by the main log wrappers.

Fetches the appropriate logger, then the function named after the param `func_name`. This is slow, you'd better use `:py:func`get_logger``.

Parameters

- **func_name** (*str*) – One of 'debug', 'info', 'error', etc
- **stackoverhead** (*int*) – defaults to 0. How deep to look in the stack for

Return type `None`

5.3.3 Module `quicklogging.stream_wrapper`

class `quicklogging.stream_wrapper.StreamWrapper` (*original_stream*, *logfunc*,
catch_all=False, *warn=False*)

Implementation detail

5.4 Annex: Quick survival guide with the logging module

Sadly, some config still needs to take place for the `logging` module.

Disclaimer: we are not responsible for the `boilerplate` required by the logging API

You still need to configure logging somewhere at the start of your script -for complex apps (`pyramid` for example), initial scaffolding is likely to do this for you (see generated `.ini` file).

Example `boilerplate` for a script logging to `my_app.log`:

```
import logging
import logging.handlers
import quicklogging

# basicConfig is only effective once (if the root logger was not configured before)
logging.basicConfig(
    handlers=[logging.handlers.WatchedFileHandler('my_app.log')],
    format="%(asctime)s %(pathname)s:%(lineno)s%(message)s\n",
    level=logging.WARNING
)
```


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Symbols

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