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# **pytest-grunnur**

***Release 0.2.2.dev***

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This package contains a collection of helpers useful for testing grunnur-based libraries and applications. See [the Grunnur docs](#) for more details about the main package.



## INDICES AND TABLES

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## 2.1 Py.Test hooks

These are invoked automatically if you use `pytest_grunnur` as a `py.test` plugin.

`pytest_grunnur.plugin.pytest_addoption(parser: Parser) → None`

Adds the following command-line options:

- `--api`: select a specific API to test (out of returned by `grunnur.all_api_ids()`).
- `--platform-include-mask`: run tests only on platforms whose names matches the mask.
- `--platform-exclude-mask`: exclude platforms whose names matches the mask from the tests.
- `--device-include-mask`: run tests only on devices whose names matches the mask.
- `--device-exclude-mask`: exclude devices whose names matches the mask from the tests.
- `--include-duplicate-devices`: if there are devices with the same name in the platform, run tests on all of them.
- `--include-pure-parallel-devices`: include pure parallel devices in the tests (that is, those not supporting synchronization within a block/work group).

`pytest_grunnur.plugin.pytest_report_header(config: Config) → None`

Adds a header to the test report, listing all the GPGPU devices the tests are run on, including their short numerical IDs (appearing in the test parameters).

`pytest_grunnur.plugin.pytest_generate_tests(metafunc: Metafunc) → None`

Seeds the parameters for the fixtures provided by this plugin (see the fixture list for details).

## 2.2 Fixtures

`pytest_grunnur.plugin.api(request: FixtureRequest) → Iterator[API]`

Yields the elements of the return value of `get_apis()`.

`pytest_grunnur.plugin.platform(request: FixtureRequest) → Iterator[Platform]`

Yields the elements of the return value of `get_platforms()`.

`pytest_grunnur.plugin.device(request: FixtureRequest) → Iterator[Device]`

Yields the elements of the return value of `get_devices()`.

`pytest_grunnur.plugin.context(device: Device) → Iterator[Context]`

A single-device context for each device yielded by `device()`.

`pytest_grunnur.plugin.some_device(request: FixtureRequest) → Iterator[Device]`

Yields one element of the return value of `get_devices()`.

`pytest_grunnur.plugin.some_context(some_device: Device) → Iterator[Context]`

A single-device context initialized with the return value of `some_device()`.

`pytest_grunnur.plugin.multi_device_set(request: FixtureRequest) → Iterator[List[Device]]`

Yields the elements of the return value of `get_multi_device_sets()`.

`pytest_grunnur.plugin.multi_device_context(multi_device_set: List[Device]) → Iterator[Context]`

A multi-device context for each device set yielded by `multi_device_set()`.

## 2.3 Utility functions

`pytest_grunnur.get_apis(config: Config) → List[API]`

Returns the list of APIs filtered by the test configuration.

`pytest_grunnur.get_platforms(config: Config) → List[Platform]`

Returns the list of platforms filtered by the test configuration (concatenated for all filtered APIs).

`pytest_grunnur.get_devices(config: Config) → List[Device]`

Returns the list of devices filtered by the test configuration (concatenated for all filtered platforms and APIs).

`pytest_grunnur.get_multi_device_sets(config: Config) → List[List[Device]]`

Returns a list where each element is a list with two or more devices belonging to the same API and platform, where APIs, platforms, and devices are filtered by the test configuration.

## VERSION HISTORY

### 3.1 0.2.2 (Unreleased)

Under construction.

### 3.2 0.2.1 (5 Feb 2023)

#### 3.2.1 Fixed

- Switched back to static versioning.

### 3.3 0.2.0 (4 Feb 2023)

All the fixtures are now explicitly defined.

### 3.4 0.1.0 (29 Jan 2023)

Initial version



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