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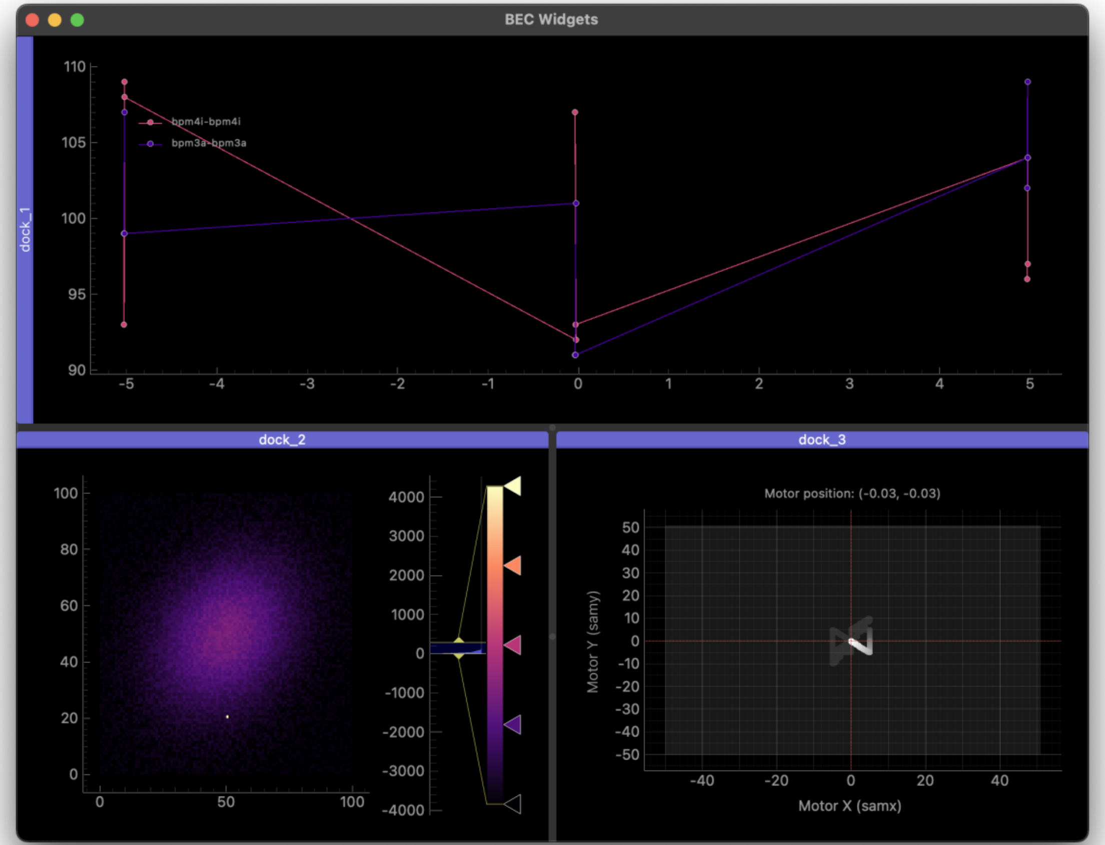
AWI Department Meeting

EIDO - 7901

- BEC Widgets
  - Full support for RPC control of widgets
  - Added support for modular dock widgets



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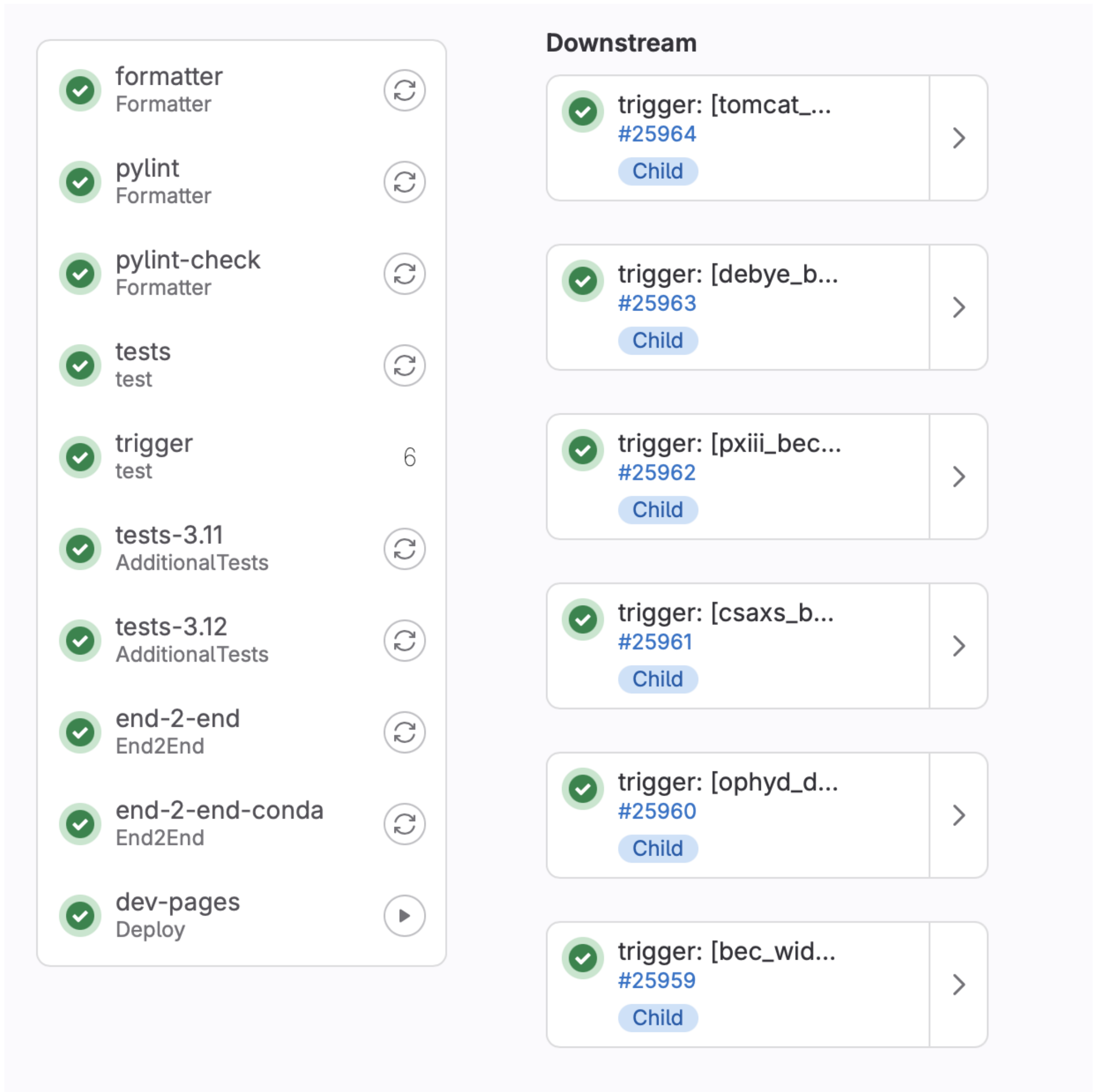
BEC downstream pipelines

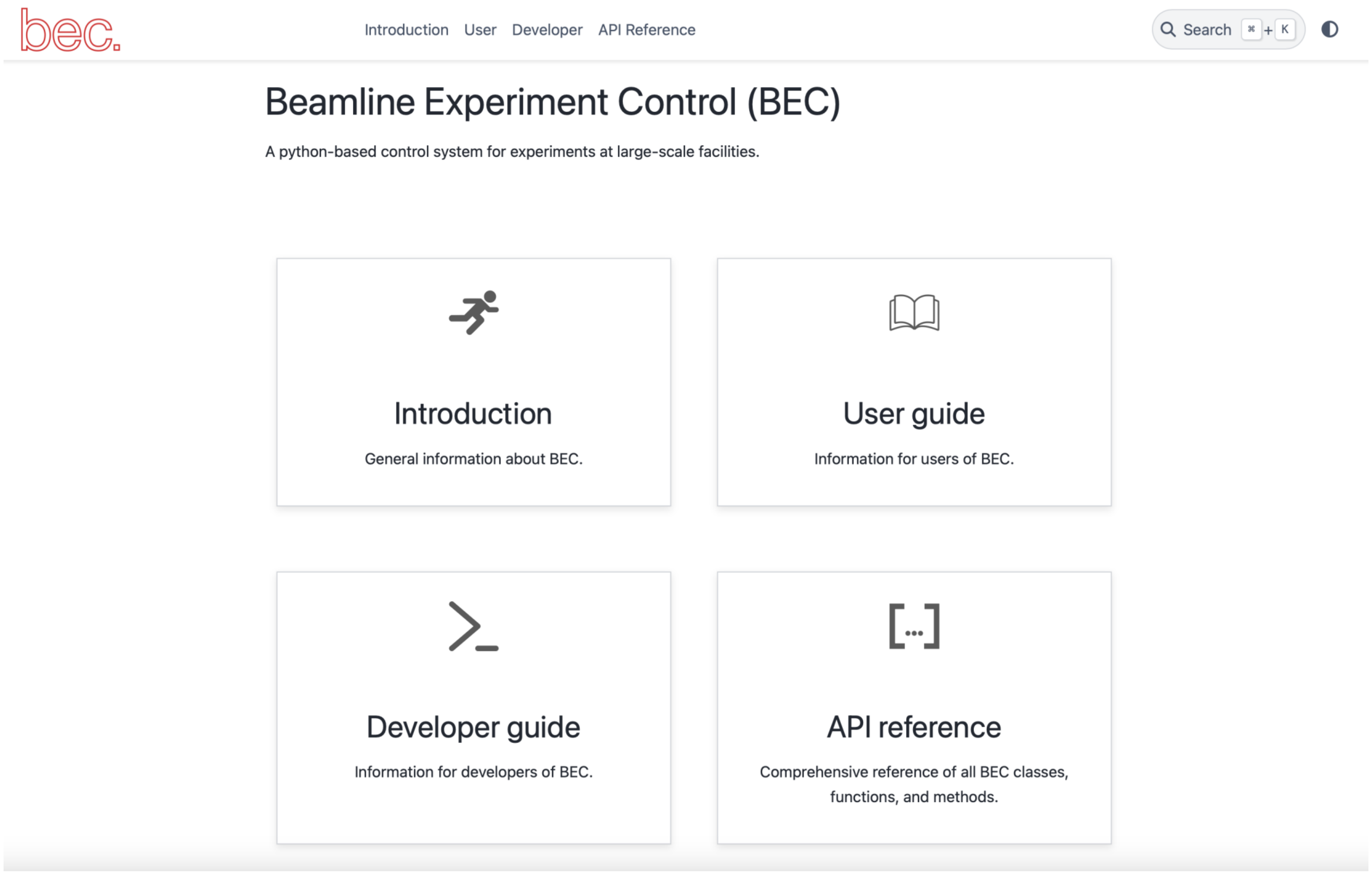


✓	formatter Formatter	
✓	pylint Formatter	
✓	pylint-check Formatter	
✓	tests test	
✓	trigger test	6
✓	tests-3.11 AdditionalTests	
✓	tests-3.12 AdditionalTests	
✓	end-2-end End2End	
✓	end-2-end-conda End2End	
✓	dev-pages Deploy	

Downstream

✓	trigger: [tomcat_... #25964 Child
✓	trigger: [debye_b... #25963 Child
✓	trigger: [pxiii_bec... #25962 Child
✓	trigger: [csaxs_b... #25961 Child
✓	trigger: [ophyd_d... #25960 Child
✓	trigger: [bec_wid... #25959 Child

Redesigned and improved RTD



Beamline Experiment Control (BEC)

A python-based control system for experiments at large-scale facilities.

Introduction

General information about BEC.

User guide

Information for users of BEC.

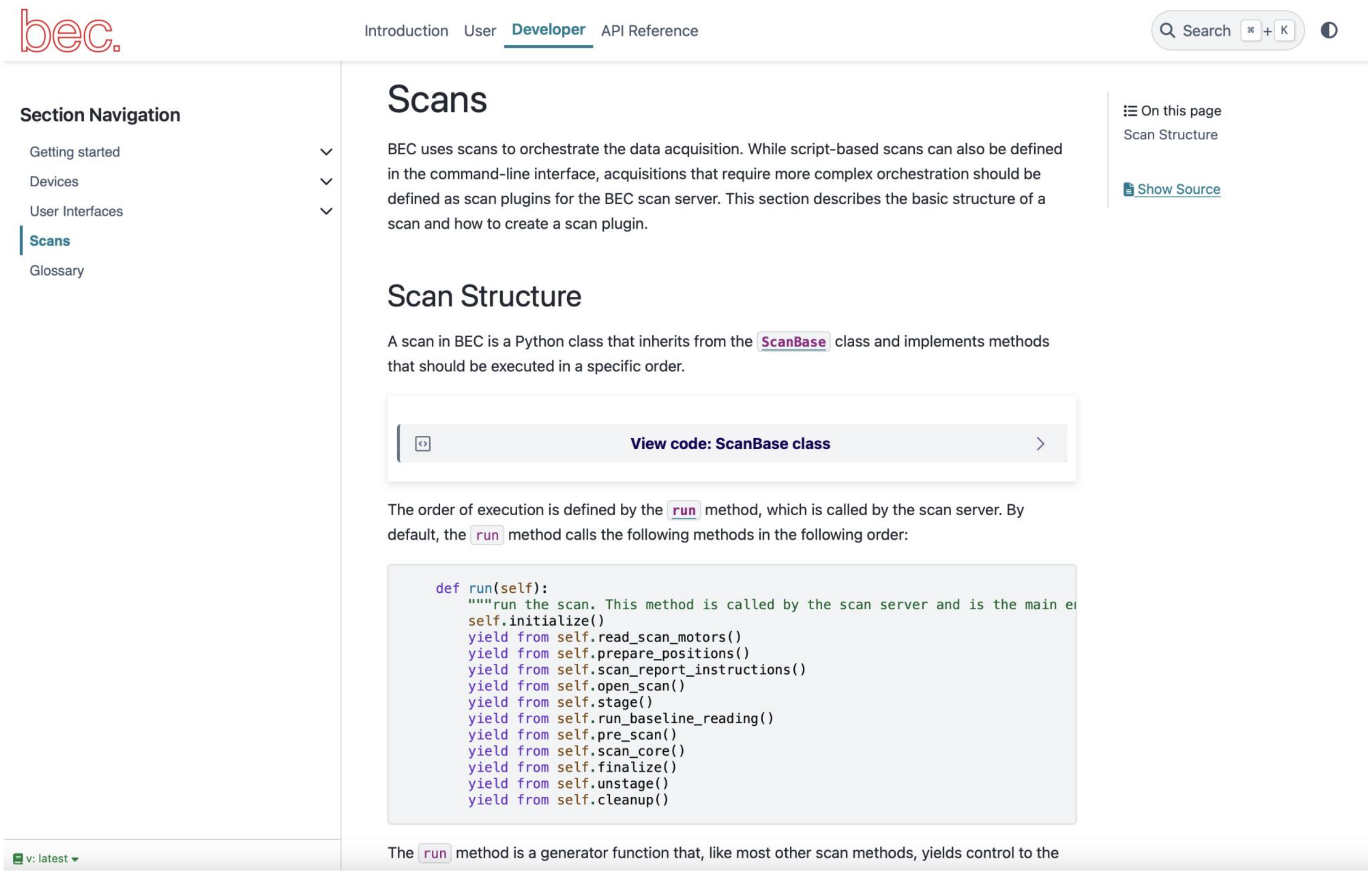
Developer guide

Information for developers of BEC.

API reference

Comprehensive reference of all BEC classes, functions, and methods.

Redesigned and improved RTD



Scans

BEC uses scans to orchestrate the data acquisition. While script-based scans can also be defined in the command-line interface, acquisitions that require more complex orchestration should be defined as scan plugins for the BEC scan server. This section describes the basic structure of a scan and how to create a scan plugin.

Scan Structure

A scan in BEC is a Python class that inherits from the `ScanBase` class and implements methods that should be executed in a specific order.

View code: ScanBase class

The order of execution is defined by the `run` method, which is called by the scan server. By default, the `run` method calls the following methods in the following order:

```
def run(self):
    """run the scan. This method is called by the scan server and is the main e
    self.initialize()
    yield from self.read_scan_motors()
    yield from self.prepare_positions()
    yield from self.scan_report_instructions()
    yield from self.open_scan()
    yield from self.stage()
    yield from self.run_baseline_reading()
    yield from self.pre_scan()
    yield from self.scan_core()
    yield from self.finalize()
    yield from self.unstage()
    yield from self.cleanup()
```

The `run` method is a generator function that, like most other scan methods, yields control to the