Sardana Controllers as Python Packages

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Overview

- Cookiecutter
- Sardana controller template
- How to move old controllers
- Possibilities on CI/CD

Cookiecutter

In their own words:

*A command-line utility that creates projects from **cookiecutters** (project templates), e.g. creating a Python package project from a Python package project template.*

Cookiecutter Documentation: https://cookiecutter.readthedocs.io

Minimal MAXIV Example: https://github.com/amilan/cookiecutter-maxiv-minimal

More elaborated project: https://github.com/audreyr/cookiecutter-pypackage

Cookiecutter example: structure

```
cookiecutter-maxiv-minimal ➤
.
├── cookiecutter.json
├── {{cookiecutter.project_name}}
│   ├── .bumpversion.cfg
│   ├── conftest.py
│   ├── {{cookiecutter.package_name}}
│   │   ├── {{cookiecutter.package_name}}.py
│   │   └── __init__.py
│   ├── docs
│   │   ├── conf.py
│   │   ├── index.rst
│   │   ├── make.bat
│   │   ├── Makefile
│   │   └── MAXIV_logo_rgb.png
│   ├── .gitignore
│   ├── LICENSE
│   ├── README.rst
│   ├── requirements.txt
│   ├── setup.cfg
│   ├── setup.py
│   └── tests
│       └── test_{{cookiecutter.package_name}}.py
└── README.md
```

Cookiecutter example: cookiecutter.json

```
{
    "project_name": "lib-maxiv-new_project",
    "package_name": "package",
    "project_description": "This is my new super cool project",
    "author_name": "antmil",
    "author_email": "antonio.milan_otero@maxiv.lu.se"
}
```

Cookiecutter example: test_{{cookiecutter.package_name}}.py

```
#!/usr/bin/env python


"""Test suite for {{cookiecutter.package_name}}."""


__author__='{{cookiecutter.author_name}}'
__docformat__='restructuredtext'


def test_{{cookiecutter.package_name}}():
   """Some template test for the {{cookiecutter.package_name}} package."""
   pass
```

Cookiecutter example: Usage

Once you have cookiecutter installed, you can clone the repository and run:

```
git clone git@github.com:amilan/cookiecutter-maxiv-minimal.git
```

```
cookiecutter cookiecutter-maxiv-minimal/
```

Or you can use it directly from the github repository:

```
cookiecutter gh:amilan/cookiecutter-maxiv-minimal
```

More detailed info: https://cookiecutter.readthedocs.io/en/latest/usage.html

Sardana Controller template

Similar to the minimal.

Available here: https://github.com/amilan/cookiecutter-sardana-ctrl

Future additions:

- Choose different licenses
- Choose a tailored template for the type of controller to be developed
- Customized docs
- Etc ...

Sardana Controllers: How to move an existing one

Instructions available in the wiki of the template project:

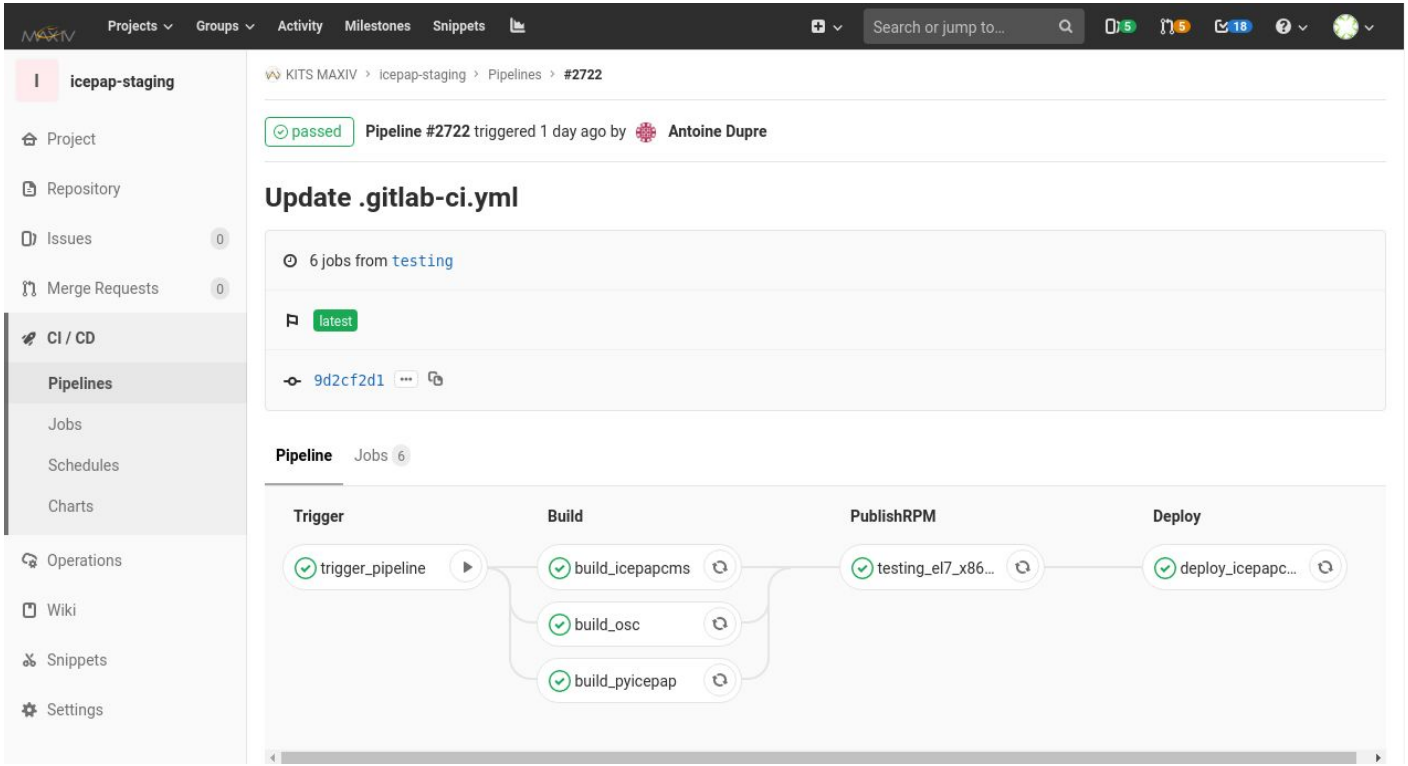
https://github.com/amilan/cookiecutter-sardana-ctrl/wiki

(as an exercise) Icepap controller and AlbaEM moved here:

https://gitlab.maxiv.lu.se/antmil/sardana-controller-icepap

https://gitlab.maxiv.lu.se/antmil/sardana-ctrl-albaem

CI/CD: Use Case at MaxIV gitlab



Pros and Cons

Pros:

- Better version handling
- Better CI/CD
- Enable the usage of Pipelines
- Documentation per Controller

Cons:

- Hard to find existing controllers
- Catalog needed (it can be automatically updated via CI/CD)
- Existing controllers could stay in a single repository or moved to their own repository, but that will generate some work

Questions?