CSP.LMC Subelement TANGO Classes Documentation

Release 0.1.0-beta

SKA Organization

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This project provides a limited set of base classes to be extended by each CSP.LMC SubElement class.

The scope of the CSP.LMC SubElement Base classes is to provide to a CSP.LMC Element a common set of TANGO methods and attributes to access its SubElements in an uniform way.

CHAPTER

ONE

SKA CSP-LMC-SUBELEMENT ABSTRACT CLASS

Documentation Status

1.1 Table of contents

- *Description*
- *Getting started*
- *Repository*
- *Prerequisities*
- *Running tests*
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- *License*

1.2 Description

This project contains the `CSP.LMC.SUBELEMENT` prototype. It includes a single class:

- the `CspSubElementMaster` device: based on the `CspMaster` class. The `CspSubElementMaster` represents a primary point of contact for CSP SubElement Monitor and Control. It implements CSP SubElement state and mode indicators and a limited set of housekeeping commands. It is intended to connect to the various subcomponent of SubElement. This can be accomplished directly or by means of a *caching* device, called `Rack`. Of course it is a device collector and can or cannot correspond to a physical rack.

1.3 Getting started

The project can be found in the SKA gitlab repository.

To get a local copy of the project:

```
git clone https://gitlab.com/ska-telescope/csp-lmc-subelement.git
```

1.4 Prerequisities

- A TANGO development environment properly configured, as described in SKA developer portal
- SKA Base classes

1.5 Repository organization

The `CSP.LMC.SUBELEMENT` repository is organized in a single code tree. The hierarchy contains:

- *cspse*: contains the specific project TANGO Device Class files
- *pogo*: contains the POGO files of the TANGO Device Classes of the project
- *docker*: contains the `docker`, `docker-compose` and `dsconfig` configuration files as well as the Makefile to generate the docker image and run the tests.
- *tests*: contains the test

1.6 Running tests

To run the internal test go to `tests` directory and execute:

```
make test
```

1.7 Known bugs

Still none

1.8 Troubleshooting

TBD

1.9 License

See the LICENSE file for details.

CHAPTER

TWO

PUBLIC API DOCUMENTATION

2.1 CspSubElementMaster TANGO Class

CSP.LMC Sub-element Master

A base class for the Master of a SKA Sub-element.

`cspse.lmc.subelement_master.main`(*args=None*, ***kwargs*)

Main function of the CspSubElementMaster module.

2.2 CspSubElementSubarray TANGO Class

CSP SubElement Subarray

CSP SubElementbsubarray functionality is modeled via a TANGO Device Class

`cspse.lmc.subelement_subarray.main`(*args=None*, ***kwargs*)

Main function of the CspSubElementSubarray module.

CHAPTER

THREE

DETAILED CLASS DOCUMENTATION

We report here the detailed descriptions of the component that form part of the project. This project includes few TANGO Device Classes: the *CspSubElementMaster*, the *CspSubElementSubarray*.

- *Public API documentation*

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