





TANGO Device Server

Absorbing System Control User's Guide

AbsorbingSystem Class

Revision: release_1_0_0 - Author: elattaoui Implemented in C++

Introduction:

This class controls two elements to be inserted in the beam line. Inserting the second element whereas the first is not, is not allowed. Incoherent position!

Class Inheritance:

- Tango::Device_3Impl
 - O AbsorbingSystem

Properties:

| Device Properties | | | |
|-------------------|-------------------|---|--|
| Property name | Property type | Description | |
| DIODeviceName | Tango::DEV_STRING | Name of the underlying DIO device [DIO_7432 or compatible - no default value] | |
| NoElemChIN | Tango::DEV_STRING | DIO device's line used to control if the elements are inserted [no default value] | |
| FirstElemChIN | Tango::DEV_STRING | DIO device's line used to control if the first element is inserted [no default value] | |
| BothElemChIN | Tango::DEV_STRING | DIO device's line used to control if the two elements are inserted [no default value] | |
| FirstElemChOUT | Tango::DEV_STRING | The write channel number on the 7432 board of the first element | |
| SecondElemChOUT | Tango::DEV_STRING | The write channel number on the 7432 board of the second element | |

Device Properties Default Values:

| Property Name | Default Values | |
|----------------------|-----------------------|--|
| DIODeviceName | No default value | |
| NoElemChIN | No default value | |
| FirstElemChIN | No default value | |
| BothElemChIN | No default value | |
| FirstElemChOUT | No default value | |
| SecondElemChOUT | No default value | |

There is no Class properties.

Attributes:

| Scalar Attribut | es | | |
|--|-------------|------------|--------|
| Attribute name | Data Type | R/W Type | Expert |
| noElementInserted : True when there is no element inserted in the beam. | DEV_BOOLEAN | READ_WRITE | No |
| firstElementInserted : True when the first element is inserted in the beam. | DEV_BOOLEAN | READ_WRITE | No |
| secondElementInserted : True when the second element is inserted in the beam. | DEV_BOOLEAN | READ_WRITE | No |

Commands:

More Details on commands....

| Device Commands for Operator Level | | | |
|---------------------------------------|----------|------------------|--|
| Command name Argument In Argument Out | | | |
| Init | DEV_VOID | DEV_VOID | |
| State | DEV_VOID | DEV_STATE | |
| Status | DEV_VOID | CONST_DEV_STRING | |

1 - Init

Description: This commands re-initialise a device keeping the same network connection.

After an Init command executed on a device, it is not necessary for client to re-connect to the device.

This command first calls the device *delete_device()* method and then execute its *init_device()* method.

For C++ device server, all the memory allocated in the $nit_device()$ method must be freed in the $delete_device()$ method.

The language device desctructor automatically calls the *delete_device()* method.

• Argin:

DEV_VOID: none.

Argout:

DEV_VOID : none.

Command allowed for:

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- Argin:

DEV_VOID : none.

• Argout:

DEV_STATE: State Code

Command allowed for:

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
- Argin:

DEV_VOID: none.

| ommand allowed for: | G: Status description | | | |
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Absorbing System Control Device Commands Description AbsorbingSystem Class

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• Argin:

DEV_VOID: none.

• Argout:

DEV_VOID: none.

Command allowed for:

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- Argin:

DEV_VOID: none.

• Argout:

DEV_STATE: State Code

Command allowed for:

3 - Status • **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller. • Argin: **DEV_VOID** : none. • Argout: **CONST_DEV_STRING**: Status description • Command allowed for: **ESRF** - Software Engineering Group