



TANGO
Device
Server

Multiple Axes User's Guide

MultipleAxes Class

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Implemented in C++ - CVS repository: ESRF

Introduction:

This class aggregate together several devices deriving from the Motor abstract class. The position of each sub motor is mapped in an attribute and the state of the device is calculated with a combination of the states of each motors

Class Inheritance:

- Tango::Device_4Impl
 - MultipleAxes

Properties:

Device Properties		
Property name	Property type	Description
MotorNameList	Array of string	list of Motor tango devices. e.g. sr/d-mot/id12-x sr/d-mot/id12-v
AttributeNameList	Array of string	list of attribute name to create in association of each motor e.g. Position_x Position_z

Device Properties Default Values:

Property Name	Default Values
MotorNameList	jmc/vpap/1 jmc/vpap/3
AttributeNameList	XPos ZPos

There is no Class properties.

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
Off	DEV_VOID	DEV_VOID
On	DEV_VOID	DEV_VOID
Stop	DEV_VOID	DEV_VOID
GoHome	DEV_VOID	DEV_VOID

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.
- **Argout:**
CONST_DEV_STRING : Status description
- **Command allowed for:**

4 - Off

- **Description:** Switch OFF all the motors
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

5 - On

- **Description:** Switch ON all the motors
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

6 - Stop

- **Description:** Stop all the motors
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

7 - GoHome

- **Description:** Move all motors to its home position
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :

- **Command allowed for:**

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