



TANGO
Device
Server

PMAC User's Guide

PMACAxis Class

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Implemented in C++ - CVS repository: tango-ds

Introduction:

controls 1 axis of the PMAC commands are sent via PMACBox calss

Class Identification:

- **Contact** : at synchrotron-soleil.fr - jean.coquet
- **Class Family** : Motion
- **Platform** : All Platforms
- **Bus** : Ethernet
- **Manufacturer** : Delta Tau
- **Reference** : PMAC

Class Inheritance:

- Tango::Device_4Impl
 - PMACAxis

Class Description:

controls 1 axis of the PMAC commands are sent via PMACBox calss

Properties:

Device Properties		
Property name	Property type	Description
AxisNumber	Tango::DEV_LONG	Axis number
AxisPositionRatio	Tango::DEV_DOUBLE	for conversion of HW position to user units read position in user units = (HW position * ratio) + offset

Device Properties Default Values:

Property Name	Default Values
AxisNumber	No default value
AxisPositionRatio	No default value

There is no Class properties.

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
position: motor position in user units read position = HW (position * ratio) + offset write position = (setpoint - offset) / ratio	DEV_DOUBLE	READ_WRITE	No
offset: Position Offset in user units read position = HW (position * ratio) + offset write position = (setpoint - offset) / ratio	DEV_DOUBLE	READ_WRITE	No
velocity: motor velocity	DEV_DOUBLE	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
Stop	DEV_VOID	DEV_VOID
InitializeReferencePosition	DEV_VOID	DEV_VOID
Reset	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 - Stop

- **Description:** Stops motor
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

5 - InitializeReferencePosition

- **Description:** makes a Home 0
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**

6 - Reset

- **Description:** Resets Motor
- **Argin:**
DEV_VOID :

- **Argout:**
DEV_VOID :
- **Command allowed for:**

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Device Servers : CVS repository on tango-ds project