



**TANGO
Device
Server**

TANGO Device Server User's Guide

MatrixCalc Class

**Revision: - Author: meyer
Implemented in Python**

Introduction:

Class Identification:

- **Contact** : at esrf.fr - meyer
- **Class Family** : Calculation
- **Platform** : All Platforms
- **Bus** : Not Applicable

Class Inheritance:

- PyTango.Device_4Impl
 - MatrixCalc

Properties:

Device Properties		
Property name	Property type	Description
ReadAttributes	Tango::DEVVAR_STRINGARRAY	
CreateAttributes	Tango::DEVVAR_STRINGARRAY	
ReadMatrix	Tango::DEV_STRING	
OffsetColumn	Tango::DEV_BOOLEAN	

Device Properties Default Values:

Property Name	Default Values
ReadAttributes	No default value
CreateAttributes	No default value
ReadMatrix	No default value
OffsetColumn	No default value

There is no Class properties.

States:

States	
Names	Descriptions
ON	
FAULT	
UNKNOWN	

Attributes:

Image Attributes				
Attribute name	Data Type	X Data Length	Y Data Length	Expert
ReadMatrix: The transfer matrix for data reading.	DEV_DOUBLE	512	512	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
WriteMatrixArray	DEVVAR_DOUBLEARRAY	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:**
 - Tango::ON
 - Tango::FAULT
 - Tango::UNKNOWN

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:**
 - Tango::ON
 - Tango::FAULT
 - Tango::UNKNOWN

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:**
 - Tango::ON
 - Tango::FAULT
 - Tango::UNKNOWN

4 - WriteMatrixArray

- **Description:** Write the transfer matrix as simple array without dimensions. Help command to be used with the Taco API.
- **Argin:**
DEVVAR_DOUBLEARRAY :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT

○ Tango::UNKNOWN

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