



TANGO Device Server

Sy_sextu_wrapper
User's Guide

SextupoleServer Class

Revision: - Author: vedder
Implemented in C++ - CVS repository: ESRF

Introduction:

This is a tango wrapper to access old tango release of the Sy Sextupole server.

Class Description:

This is a tango wrapper to access old tango release of the Sy Sextupole server.

Properties:

Device Properties		
Property name	**Property type**	**Description**
Sextupole_type	Tango::DEV_STRING	This string specifies the type of sextupoles handled by the Sextupole server. Only two string are accepted: 'focusing', or 'defocusing' This information is needed by the new sextupole device server, who wrapps commands on the old deveice server.

Device Properties Default Values:

Property Name	**Default Values**
Sextupole_type	No default value

There is no Class properties.

States:

States	
Names	**Descriptions**
ON	
OFF	
ALARM	Device is in Alarm.
FAULT	Device is in Fault
MOVING	A command signal is being pulsed. Ex Reset / switch ON.

Attributes:

Scalar Attributes

Attribute name	Data Type	R/W Type	Expert
bpss_t0: T0 period used by the device server.	DEV_LONG	READ	No
dc_voltage	DEV_DOUBLE	READ	No
dc_current	DEV_DOUBLE	READ	No
rms_voltage	DEV_DOUBLE	READ	No
rms_current	DEV_DOUBLE	READ	No
dc	DEV_DOUBLE	READ_WRITE	No
rms	DEV_DOUBLE	READ_WRITE	No
phase	DEV_LONG	READ_WRITE	No
ac_1	DEV_DOUBLE	READ	No
ac_2	DEV_DOUBLE	READ_WRITE	No
ac_3	DEV_DOUBLE	READ_WRITE	No
ac_4	DEV_DOUBLE	READ_WRITE	No
ac_5	DEV_DOUBLE	READ_WRITE	No
ac_6	DEV_DOUBLE	READ_WRITE	No
ac_7	DEV_DOUBLE	READ_WRITE	No
ac_8	DEV_DOUBLE	READ_WRITE	No
ac_9	DEV_DOUBLE	READ_WRITE	No
ac_10	DEV_DOUBLE	READ_WRITE	No
phi_1	DEV_DOUBLE	READ	No
phi_2	DEV_DOUBLE	READ_WRITE	No
phi_3	DEV_DOUBLE	READ_WRITE	No
phi_4	DEV_DOUBLE	READ_WRITE	No
phi_5	DEV_DOUBLE	READ_WRITE	No
phi_6	DEV_DOUBLE	READ_WRITE	No
phi_7	DEV_DOUBLE	READ_WRITE	No
phi_8	DEV_DOUBLE	READ_WRITE	No
phi_9	DEV_DOUBLE	READ_WRITE	No
phi_10	DEV_DOUBLE	READ_WRITE	No

Spectrum Attributes			
Attribute name	**Data Type**	**X Data Length**	**Expert**
voltage_wave	DEV_SHORT	256	No
current_wave	DEV_SHORT	256	No
wave_preview: preview of the wave generated with new parameters	DEV_DOUBLE	256	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
GenerateWave	DEV_VOID	DEV_VOID
On	DEV_VOID	DEV_VOID
Off	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:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::MOVING

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::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::MOVING

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::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::MOVING

4 - GenerateWave

- **Description:** Calculate the wave to generate and download it on the DAC, through the Device Server. The calculation is done using the current set of attributes AC1-AC10, PHI1-PHI10. This command was handled by the DevSetWave command on the old Device Server.

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM

5 - On

- **Description:** Turn the device ON.

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM

6 - Off

- **Description:** Turn the device off.

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM

- Tango::FAULT
- Tango::MOVING

7 - Reset

- **Description:** Reset the device.

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

- **Command allowed for:**
  - Tango::ON
  - Tango::OFF
  - Tango::ALARM
  - Tango::FAULT
  - Tango::MOVING