



TANGO
Device
Server

PEM100

User's Guide

PEM100 Class

Revision: release_2_0_0 - Author: jean.coquet
Implemented in C++ - CVS repository: tango-ds

Introduction:

Device used to control the PEM100 controller associated with a photoelastic modulator
Communication part managed by Serial Device with the following RS232 parameters: BaudRate = 2400 Newline = 10 CharLength = 8 StopBits = 0 (means 1 bit) SerialLine = COMx (where x is the number of the serial port) TimeOut = 2000 Parity = none

Class Identification:

- **Contact** : at synchrotron-soleil.fr - jean.coquet
- **Class Family** : Instrumentation
- **Platform** : All Platforms
- **Bus** : toto

Class Inheritance:

- Tango::Device_4Impl
 - PEM100

Class Description:

Device used to control the PEM100 controller associated with a photoelastic modulator
Communication part managed by Serial Device with the following RS232 parameters: BaudRate = 2400 Newline = 10 CharLength = 8 StopBits = 0 (means 1 bit) SerialLine = COMx (where x is the number of the serial port) TimeOut = 2000 Parity = none

Properties:

Device Properties		
Property name	Property type	Description
SerialLineProxyName	Tango::DEV_STRING	SerialLine Proxy Name
PEMType	Tango::DEV_LONG	model : 90 or 100

Device Properties Default Values:

Property Name	Default Values
SerialLineProxyName	No default value
PEMType	No default value

There is no Class properties.

States:

States	
Names	Descriptions
ON	normal operation
FAULT	communication problem

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
retardation: Phase Shift (memorized)	DEV_DOUBLE	READ_WRITE	No
frequency: displays the 1F or 2 F frequency according to activated 1F or 2F	DEV_DOUBLE	READ	No
waveLength: wavelength (memorized)	DEV_DOUBLE	READ_WRITE	No
voltage: voltage control	DEV_DOUBLE	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
ChangeHarmonic	DEV_VOID	DEV_VOID
Set1F	DEV_VOID	DEV_VOID
Set2F	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::FAULT

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

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

4 - ChangeHarmonic

- **Description:** change current harmonic monitoring

- **Argin:**
DEV_VOID : nothing

- **Argout:**

DEV_VOID : nothing

- **Command allowed for:**

- Tango::ON
- Tango::FAULT

5 - Set1F

- **Description:** display 1F on tyhe terminal display and on the remote control mode display

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

- Tango::ON
- Tango::FAULT

6 - Set2F

- **Description:** display 2F on tyhe terminal display and on the remote control mode display

- **Argin:**

DEV_VOID :

- **Argout:**

DEV_VOID :

- **Command allowed for:**

- Tango::ON
- Tango::FAULT

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