



TANGO
Device
Server

SY2527Channel User's Guide

SY2527Channel Class

**Revision: release_1_0_0 - Author: sebleport
Implemented in C++**

Introduction:

this device manages one channel of the SY2527 Power Supply Board. it is the client of the SY2527Crate device

Class Inheritance:

- Tango::Device_3Impl
 - SY2527Channel

Properties:

Device Properties		
Property name	Property type	Description
SlotNumber	Tango::DEV_USHORT	slot number of the concerned power supply board
ChannelNumber	Tango::DEV_USHORT	specific channel number of the power supply board
SY2527CrateProxyName	Tango::DEV_STRING	name of the SY2527Crate device proxy

Device Properties Default Values:

Property Name	Default Values
SlotNumber	No default value
ChannelNumber	No default value
SY2527CrateProxyName	none

There is no Class properties.

States:

States	
Names	Descriptions
STANDBY	channel is ON
OFF	the channel is switched off
FAULT	the channel: - is in unpugged state - and / or is in calibration error state and / or communication problem with SY2527Crate
RUNNING	channel is ramping up or down
ALARM	Channel is either in: - overcurrent - overvoltage - undervoltage

Attributes:

Scalar Attributes

Attribute name	Data Type	R/W Type	Expert
voltage	DEV_DOUBLE	READ_WRITE	No
deltaVoltage	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
PowerON	DEV_VOID	DEV_VOID
PowerOFF	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::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

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::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

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::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

4 - PowerON

- **Description:** preset voltage is applied on this channel
- **Argin:**
DEV_VOID : nothing
- **Argout:**
DEV_VOID : nothing
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

5 - PowerOFF

- **Description:** preset voltage is no more applied on this channel
- **Argin:**
DEV_VOID : nothing
- **Argout:**
DEV_VOID : nothing
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

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PowerON	DEV_VOID	DEV_VOID
PowerOFF	DEV_VOID	DEV_VOID

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DEV_VOID : none.
- **Argout:**
DEV_STATE : State Code
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
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 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

4 - PowerON

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- **Argout:**
DEV_VOID : nothing
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

5 - PowerOFF

- **Description:** preset voltage is no more applied on this channel
- **Argin:**
DEV_VOID : nothing
- **Argout:**
DEV_VOID : nothing
- **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

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Device Commands Description

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- **Argout:**
DEV_VOID : nothing
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 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM

5 - PowerOFF

- **Description:** preset voltage is no more applied on this channel

 - **Argin:**
DEV_VOID : nothing

 - **Argout:**
DEV_VOID : nothing

 - **Command allowed for:**
 - Tango::STANDBY
 - Tango::OFF
 - Tango::FAULT
 - Tango::RUNNING
 - Tango::ALARM
-

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