SY900S_Group
User's Guide

SY900S_Group Class

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

Introduction:

this device controls one group of channels. Every channels of one group reply by the same way

Class Inheritance:

- Tango::Device_4Impl
  - SY900S_Group

Properties:

Device Properties		
Property name	**Property type**	**Description**
GroupNumber	Tango::DEV_LONG	one group is consisted of severals channels. this property assigns the group number.
SY900SgenericProxyServer	Tango::DEV_STRING	name of the generic device server proxy

Device Properties Default Values:

Property Name	Default Values
GroupNumber	No default value
SY900SgenericProxyServer	No default value

There is no Class properties.

States:

States	
Names	**Descriptions**
FAULT	memory allocation problem
STANDBY	wait for a command
RUNNING	SY900S busy

Attributes:

Scalar Attributes			
Attribute name	**Data Type**	**R/W Type**	**Expert**
voltagesAppliedOnAllChannels: sets the output voltage over all channels of the same group	DEV_DOUBLE	WRITE	No
deltaVoltagesOverAllChannels: This is a diffi¿½rential voltage. The Voltage attribute equal = current voltage + differential voltage sets the output voltage of all channels from a same group N	DEV_DOUBLE	WRITE	No
group: get the current device group number	DEV_LONG	READ	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
On	DEV_VOID	DEV_VOID
Off	DEV_VOID	DEV_VOID
ResetError	DEV_VOID	DEV_VOID
SetChannelsTargetVoltage	DEV_VOID	DEV_VOID
GetLastError	DEV_VOID	DEV_STRING

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::FAULT
- ○ Tango::STANDBY
- ○ Tango::RUNNING

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::FAULT
- Tango::STANDBY
- Tango::RUNNING

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::FAULT
- Tango::STANDBY
- Tango::RUNNING

4 - On

- **Description:** switchs on all the channels of a same group

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

- **Command allowed for:**
- Tango::STANDBY
- Tango::RUNNING

5 - Off

- **Description:** switchs off all the channels of a same group. Vouts = 0 V after pushing init. Moreover, after switching ON, Output voltages stay at 0 V.

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

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

6 - ResetError

- **Description:** erase all error message

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

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

7 - SetChannelsTargetVoltage

- **Description:** This command sets all channels to the voltage defined by each target voltage attributes in the SY900S_channel device.

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_VOID :

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

8 - GetLastError

- **Description:** this function get the las error message which has occured

- **Argin:**
  DEV_VOID :

- **Argout:**
  DEV_STRING : error message

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