



**TANGO**  
Device  
Server

# **SY900S\_Channel** **User's Guide**

## **SY900S\_Channel Class**

**Revision: release\_2\_1\_0 - Author: sebleport**  
**Implemented in C++**

### **Introduction:**

this device controls one channel of the SY900S rack

### **Class Inheritance:**

- Tango::Device\_3Impl
  - SY900S\_Channel

### **Properties:**

## Device Properties

Property name	Property type	Description
<b>GroupNumber</b>	Tango::DEV_LONG	one group is consisted of severals channels. this property assigns the group number.
<b>ChannelNumber</b>	Tango::DEV_LONG	one channel is contained inside one group. this property assigns the channel number
<b>SY900SGenericProxyName</b>	Tango::DEV_STRING	SY900S Generic Proxy Name

Device Properties Default Values:

Property Name	Default Values
GroupNumber	No default value
ChannelNumber	No default value
SY900SGenericProxyName	No default value

**There is no Class properties.**

## States:

States	
Names	Descriptions
<b>STANDBY</b>	the voltage is applied on the channel
<b>OFF</b>	the voltage is not yet applied on the channel
<b>FAULT</b>	a communication problem or out of memory occurred
<b>RUNNING</b>	voltage is changing

## Attributes:

## Scalar Attributes

Attribute name	Data Type	R/W Type	Expert
<b>voltage:</b> is the output voltage of the channel	DEV_DOUBLE	READ_WRITE	No
<b>deltaVoltage:</b> shift voltage to apply on the channel	DEV_DOUBLE	WRITE	No
<b>targetVoltage:</b> Voltage preset to reach. The voltage is not applied after setting it. A set_voltage group command is able to apply preset voltage on all channels	DEV_DOUBLE	WRITE	No
<b>channel:</b> channel number	DEV_LONG	READ	No
<b>group:</b> group number	DEV_LONG	READ	No

## Commands:

More Details on commands....

### Device Commands for Operator Level

Command name	Argument In	Argument Out
<b>Init</b>	DEV_VOID	DEV_VOID
<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_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::STANDBY
  - Tango::OFF
  - Tango::FAULT
  - 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::STANDBY
  - Tango::OFF
  - Tango::FAULT
  - 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::STANDBY
  - Tango::OFF
  - Tango::FAULT
  - Tango::RUNNING

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<b>SY900SGenericProxyName</b>	Tango::DEV_STRING	SY900S Generic Proxy Name

Device Properties Default Values:

Property Name	Default Values
GroupNumber	No default value
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**There is no Class properties.**

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<b>channel:</b> channel number	DEV_LONG	READ	No
<b>group:</b> group number	DEV_LONG	READ	No

## Commands:

More Details on commands....

### Device Commands for Operator Level

Command name	Argument In	Argument Out
<b>Init</b>	DEV_VOID	DEV_VOID
<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_DEV_STRING

## 1 - Init

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- **Command allowed for:**
  - Tango::STANDBY
  - Tango::OFF
  - Tango::FAULT
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## 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

## 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

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# SY900S\_Channel

## Device Commands Description

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- **Argin:**  
**DEV\_VOID** : none.
- **Argout:**  
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- **Command allowed for:**
  - Tango::STANDBY
  - Tango::OFF
  - Tango::FAULT
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## 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
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