



**TANGO**  
Device  
Server

# **PSGCorrector User's Guide**

## **PSGPowerSupplyChannel Class**

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**Implemented in C++ - CVS repository: ESRF**

### **Introduction:**

This class is able to control the ESRF Power Supply for administrate channel It uses other classes: \* PowerSupplyCrate class \* SRCorrectors class \* MchCorrector class

### **Class Identification:**

- **Contact** : at esrf.fr - yohann.lavigne
- **Class Family** : PowerSupply (Specific Specific)
- **Platform** : Unix Like
- **Bus** : VME
- **Manufacturer** : ESRF
- **Reference** : multi channels corrector

## Class Inheritance:

- Tango::Device\_4Impl
  - PSGPowerSupplyChannel

## Properties:

Device Properties		
Property name	Property type	Description
<b>FBusChannel</b>	Tango::DEV_STRING	Name of the FBUS channel inode
<b>Node</b>	Tango::DEV_STRING	FBus node number
<b>PowerSupplyChannel</b>	Tango::DEV_SHORT	Power Supply Channel Number
<b>PowerSupplyCrate</b>	Tango::DEV_STRING	Name of the crate handling this device.

### Device Properties Default Values:

Property Name	Default Values
FBusChannel	/dev/fbus_00
Node	0
PowerSupplyChannel	0
PowerSupplyCrate	No default value

There is no Class properties.

## Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
<b>Current:</b> Current of the power supply channel.	DEV_DOUBLE	READ_WRITE	No
<b>Current_Alarm:</b> Alarm of current.	DEV_BOOLEAN	READ	No
<b>Thermal_Alarm:</b> Alarm of thermal.	DEV_BOOLEAN	READ	No
<b>Load_Alarm:</b> Alarm of load.	DEV_BOOLEAN	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
<b>On</b>	DEV_VOID	DEV_VOID
<b>Off</b>	DEV_VOID	DEV_VOID
<b>Reset</b>	DEV_VOID	DEV_VOID
<b>Calibrate</b>	DEV_VOID	DEV_VOID
<b>SetpointCheck</b>	DEV_DOUBLE	DEV_BOOLEAN

### 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:**

### 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:**

### 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:**

### 4 - On

- **Description:** Switch the channel ON
- **Argin:**  
**DEV\_VOID** :
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

### 5 - Off

- **Description:** Switch the channel OFF
- **Argin:**  
**DEV\_VOID** :
- **Argout:**  
**DEV\_VOID** :
- **Command allowed for:**

## 6 - Reset

- **Description:** Reset the faults
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**

## 7 - Calibrate

- **Description:** Calibrate the ADC
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**

## 8 - SetpointCheck

- **Description:**
- **Argin:**  
DEV\_DOUBLE :
- **Argout:**  
DEV\_BOOLEAN :
- **Command allowed for:**

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