



**TANGO**  
Device  
Server

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# **Keithley 6220 current source device server User's Guide**

## **Keithley6220 Class**

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**Revision: - Author: peru**  
**Implemented in C++ - CVS repository: ESRF**

### **Introduction:**

This device server is intended to control a Keithley 6620 precision current source over a serial line.

### **Class Inheritance:**

- Tango::Device\_4Impl
  - Keithley6220

### **Properties:**

<b>Device Properties</b>		
<b>Property name</b>	<b>Property type</b>	<b>Description</b>
<b>SerialDeviceName</b>	Tango::DEV_STRING	The device name of the associated serial device server.
<b>DefaultCompliance</b>	Tango::DEV_DOUBLE	The default value for the compliance (expressed in V, set to 10V).
<b>DefaultCurrentValue</b>	Tango::DEV_DOUBLE	This is the default current value to be set (expressed in A, set to 100mA).
<b>Out1DefaultState</b>	Tango::DEV_BOOLEAN	Out1 state after startup.
<b>Out2DefaultState</b>	Tango::DEV_BOOLEAN	Out2 state after startup.
<b>Out3DefaultState</b>	Tango::DEV_BOOLEAN	Out3 state after startup.
<b>Out4DefaultState</b>	Tango::DEV_BOOLEAN	Out4 state after startup.

Device Properties Default Values:

<b>Property Name</b>	<b>Default Values</b>
SerialDeviceName	No default value
DefaultCompliance	10.0
DefaultCurrentValue	100.0e-03
Out1DefaultState	false
Out2DefaultState	false
Out3DefaultState	false
Out4DefaultState	false

**There is no Class properties.**

**Attributes:**

<b>Scalar Attributes</b>			
<b>Attribute name</b>	<b>Data Type</b>	<b>R/W Type</b>	<b>Expert</b>
<b>Current</b>	DEV_DOUBLE	READ_WRITE	No
<b>Compliance</b>	DEV_DOUBLE	READ_WRITE	No
<b>Output1</b>	DEV_BOOLEAN	READ_WRITE	No
<b>Output2</b>	DEV_BOOLEAN	READ_WRITE	No
<b>Output3</b>	DEV_BOOLEAN	READ_WRITE	No
<b>Output4</b>	DEV_BOOLEAN	READ_WRITE	No

## Commands:

More Details on commands....

<b>Device Commands for Operator Level</b>		
<b>Command name</b>	<b>Argument In</b>	<b>Argument Out</b>
<b>Init</b>	DEV_VOID	DEV_VOID
<b>State</b>	DEV_VOID	DEV_STATE
<b>Status</b>	DEV_VOID	CONST_DEV_STRING
<b>ToggleDebugFlag</b>	DEV_VOID	DEV_VOID
<b>On</b>	DEV_VOID	DEV_VOID
<b>Off</b>	DEV_VOID	DEV_VOID
<b>DisplayString</b>	DEV_STRING	DEV_VOID
<b>UndisplayString</b>	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:**

## 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 - ToggleDebugFlag

- **Description:** Enable/disable the display of debug informations.

- **Argin:**  
**DEV\_VOID** :

- **Argout:**  
**DEV\_VOID** :

- **Command allowed for:**

## 5 - On

- **Description:** Turns the output ON.
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**

## 6 - Off

- **Description:** Turns the output OFF.
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**

## 7 - DisplayString

- **Description:** Makes the instrument displaying the string.
- **Argin:**  
DEV\_STRING :
- **Argout:**  
DEV\_VOID :
- **Command allowed for:**

## 8 - UndisplayString

- **Description:** Makes the Keithley returning to normal display.
- **Argin:**  
DEV\_VOID :
- **Argout:**  
DEV\_VOID :

- **Command allowed for:**

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