

Keithley2000 Tango Cpp Class

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Keithley2000 Class Identification :

Contact : at mail.desy.de - trunez
Class Family : Instrumentation
Platform : Unix Like
Bus : GPIB
Manufacturer : Keithley
Manufacturer ref. : 2000

Keithley2000 Class Inheritance :

- [Tango::DeviceImpl](#)
 - Keithley2000

Keithley2000 Class Description :

Class for controlling Keithley 2000 devices

Keithley2000 Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
GpibDevice	Name of the Gpib Tango device connecting to the hardware	String	none

Keithley2000 Class Commands				
Name	Input type	Output type	Level	Description
State	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its device_state data member) and returns it to the caller.
Status	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its device_status data member) and returns it to the caller.

Command State :

This command gets the device state (stored in its device_state data member) and returns it to the caller.

State Definition		
Input Argument	Tango::DEV_VOID	none
Output Argument	Tango::DEV_STATE	Device state
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Status :

This command gets the device status (stored in its device_status data member) and returns it to the caller.

Status Definition		

CurrRange	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Measurement range for the measurement function. The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accommodate the expected reading.
VoltRange	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Measurement range for the measurement function. The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accommodate the expected reading.
ResRange	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Measurement range for the measurement function. The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accommodate the expected reading.
							Measurement range for the measurement function. The range is selected by

FResRange	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accomodate the expected reading.
MeasuredValue	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Result of the measurement

There is no dynamic attribute defined.

Attribute MeasurementFunction :

Set the instrument for measuring in the selected function.
 Get the function selected for measurements.
 Possible values are: CURR (DC current), VOLT (DC voltage),
 RES (2-wire resistance) , FRES (4-wire resistance).

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute CurrIntegrationPeriod :

Integration period in number of power line cycles.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	cycles
standard unit	
display unit	
format	
max_value	10.
min_value	0.01
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute VoltIntegrationPeriod :

Integration period in number of power line cycles.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE

Attribute Properties	
label	
unit	cycles
standard unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

display unit	
format	
max_value	10.
min_value	0.01
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute ResIntegrationPeriod :

Integration period in number of power line cycles.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	cycles
standard unit	
display unit	
format	
max_value	10.
min_value	0.01
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute FResIntegrationPeriod :

Integration period in number of power line cycles.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	cycles
standard unit	
display unit	
format	
max_value	10.
min_value	0.01
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute CurrRange :

Measurement range for the measurement function.
 The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accommodate the expected reading.

Attribute Definition	
	Scalar

Attribute Properties	
label	

Attribute Event Criteria	
Periodic	Not set

Attribute Type	
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

unit	A
standard unit	
display unit	
format	
max_value	3.1
min_value	0
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute VoltRange :

Measurement range for the measurement function.
The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accommodate the expected reading.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	V
standard unit	
display unit	
format	
max_value	1010
min_value	0
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false

Push Archive event by user code	false
Push DataReady event by user code	false

Attribute ResRange :

Measurement range for the measurement function.
The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accomodate the expected reading.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	Ohm
standard unit	
display unit	
format	
max_value	120e6
min_value	0
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute FResRange :

Measurement range for the measurement function.
The range is selected by specifying the expected reading as an absolute value. The Keithley will go to the most sensitive range that will accomodate the expected reading.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	Ohm
standard unit	
display unit	
format	
max_value	120e6
min_value	0
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Attribute MeasuredValue :

Result of the measurement

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed	All states

Attribute Properties	
label	
unit	V/A/Ohm
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
	Not

for _____

min_warning	
delta_time	
delta_val	

Archive Absolute Change	set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	false

Keithley2000 Class States	
Name	Description
ON	
FAULT	