

VarianDUAL Tango Python Class

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VarianDUAL Class Identification :

Contact : at null - null
 Class Family :
 Platform :
 Bus :
 Manufacturer :
 Manufacturer ref. :

VarianDUAL Class Inheritance :

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

VarianDUAL Class Description :

This Device will manage the Varian DUAL Ion Pump Controller.

It will read Pressure, Voltage and Current for each Channel and Firmware version and relays state.
 Last update: srubio@cells.es, 2007/09/20

VarianDUAL Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
SerialLine	SerialLine Device Server to connect with	String	none
Refresh	Period (in seconds) for the internal refresh thread.	double	0.5

VarianDUAL Class Commands				
Name	Input type	Output type	Level	Description
State	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its <i>device_state</i> data member) and returns it to the caller.
Status	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its <i>device_status</i> data member) and returns it to the caller.
SendCommand	DEVVAR_CHARARRAY	DEVVAR_CHARARRAY	EXPERT	This command allows to send an array of characters directly to the device.
On	DEV_VOID	DEV_VOID	EXPERT	It enables both High Voltage Outputs of the device.
Off	DEV_VOID	DEV_VOID	EXPERT	It disables both high voltage outputs of the device
OnHV1	DEV_VOID	DEV_VOID	EXPERT	It enables High Voltage Channel 1
OnHV2	DEV_VOID	DEV_VOID	EXPERT	It enables High Voltage Channel 2
OffHV1	DEV_VOID	DEV_VOID	EXPERT	It disables High Voltage Channel 1
OffHV2	DEV_VOID	DEV_VOID	EXPERT	It disables High Voltage Channel 2

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	State Code
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		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::CONST_DEV_STRING	Status description
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SendCommand :

This command allows to send an array of characters directly to the device.

SendCommand Definition		
Input Argument	Tango::DEVVAR_CHARARRAY	
Output Argument	Tango::DEVVAR_CHARARRAY	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command On :

It enables both High Voltage Outputs of the device.

On Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Off :

It disables both high voltage outputs of the device

Off Definition		

Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command OnHV1 :

It enables High Voltage Channel 1

OnHV1 Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command OnHV2 :

It enables High Voltage Channel 2

OnHV2 Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..

Command allowed for	All states	..
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Command OffHV1 :

It disables High Voltage Channel 1

OffHV1 Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command OffHV2 :

It disables High Voltage Channel 2

OffHV2 Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Variational Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
V1	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Read: Voltage Value for Channel 1 Write: Voltage Step for Channel 1
V2	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Read: Voltage Value for Channel 2 Write: Voltage Step for Channel 2
I1	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Read: Current Value for Channel 1 Write: Current Step for Channel 1
I2	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Read: Current Value for Channel 2 Write: Current Step for Channel 2
P1	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Read: Pressure for Channel 1 Write: Max Pressure for Channel 1
P2	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Read: Pressure for Channel 2 Write: Max Pressure for Channel 2
Interlock	false	false	Scalar	READ	Tango::DEV_BOOLEAN	OPERATOR	
FirmwareVersion	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	

HV1Status	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	
HV2Status	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	

There is no dynamic attribute defined.

Attribute V1 :

Read: Voltage Value for Channel 1\nWrite: Voltage Step for Channel 1

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_LONG
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	7000
min_value	3000
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	Not set

Attribute V2 :

Read: Voltage Value for Channel 2\nWrite: Voltage Step for Channel 2

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_LONG
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	7000
min_value	3000
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	Not set

Attribute I1 :

Read: Current Value for Channel 1\nWrite: Current Step for Channel 1

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false

Attribute Properties	
label	
unit	mA
standard unit	
display unit	
format	
max_value	1000
min_value	0.000001

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

Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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	Not set

Attribute I2 :

Read: Current Value for Channel 2\nWrite: Current Step for Channel 2

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	mA
standard unit	
display unit	
format	
max_value	1000
min_value	0.000001
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	Not set

Attribute P1 :

Read: Pressure for Channel 1\nWrite: Max Pressure for Channel 1

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	Torr
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	Not set

Attribute P2 :

Read: Pressure for Channel 2\nWrite: Max Pressure for Channel 2

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

Attribute Properties	
label	
unit	Torr
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	
min_value	
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	Not set

Attribute Interlock :

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

Attribute FirmwareVersion :

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

Attribute HV1Status :

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ

Attribute Properties	
label	
unit	

Attribute Event Criteria	
Periodic	Not set
	Not

Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

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

Relative Change	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	Not set

Attribute HV2Status :

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read 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	Not set
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VariandUAL Class States	
Name	Description
ON	
OFF	
UNKNOWN	
ALARM	