MultipleMotors Tango Cpp Class

Contents :

MultipleMotors Class Identification :

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Class Family	: Motion
Platform	: Unix Like
Bus	: Not Applicable
Manufacturer	: none
Manufacturer ref.	:

MultipleMotors Class Inheritance :

- Tango::DeviceImpl
  - MultipleMotors

MultipleMotors Class Description :

Meta class for handling the energy of a given beamline.

MultipleMotors Properties :

There is no class properties

Device Properties			
Name	**Description**	**Type**	**Default Value**
BeamlineNb	Beamline number, for example, 8 for P08.	int	none
MasterDevice	Name of the Tango Device mastering the energy of the given beam line.	String	none
SlaveDevices	Names of the rest of the Tango devices in the beamline reacting to an energy change.	String[]	none

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MultipleMotors 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.
Calibrate	DEV_DOUBLE	DEV_VOID	OPERATOR	Calibrate the motor: current position is calibrated to be the value given as an argument
StopMove	DEV_VOID	DEV_VOID	OPERATOR	Stop energy movements

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	false	..
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	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Calibrate :

Calibrate the motor: current position is calibrated to be the value given as an argument

Calibrate Definition		
Input Argument	Tango::DEV_DOUBLE	New position value
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command StopMove :

Stop energy movements

StopMove Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..

Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

MultipleMotors Class Attributes							
Name	**Inherited**	**Abstract**	**Attr. type**	**R/W type**	**Data type**	**Level**	**Description**
Position	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Master Energy of the BL. Read from the master device.\nWrite to all devices if the GlobalChangeFlag is set to 1.
UnitLimitMin	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	The lower energy limit
UnitLimitMax	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	The upper energy limit
PositionSim	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Master Energy of the BL. Read from the master device.\nWrite to all devices if the GlobalChangeFlag is set to 1.
MotorMask	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Mask for activating/deactivating motors.
ResultSim	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	
ActiveSlaves	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	Names of the active slaves (set by the attribute MotorMask)

There is no dynamic attribute defined.

Attribute Position :

Master Energy of the BL. Read from the master device.\nWrite to all devices if the GlobalChangeFlag is set to 1.

Attribute		Attribute		Attribute Event Criteria	

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

Properties	
label	
unit	eV
standard unit	
display unit	
format	%8.2f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 UnitLimitMin :

The lower energy limit

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	true
Write hardware at init.	true
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	units
standard unit	
display unit	
format	%8.2f
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 UnitLimitMax :

The upper energy limit

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	true
Write hardware at init.	true
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	
unit	units
standard unit	
display unit	
format	%8.2f
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 PositionSim :

Master Energy of the BL. Read from the master device.\nWrite to all devices if the GlobalChangeFlag is set to 1.

Attribute Definition	

Attribute Properties	

Attribute Event Criteria	

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

label	
unit	eV
standard unit	
display unit	
format	%8.2f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 MotorMask :

Mask for activating/deactivating motors.

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	true
Write hardware at init.	true
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	Not set

Attribute ResultSim :

Attribute Definition	
Attribute Type	Spectrum (20)
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 ActiveSlaves :

Names of the active slaves (set by the attribute MotorMask)

Attribute Definition	
Attribute Type	Spectrum (20)
R/W Type	READ
Data Type	Tango::DEV_STRING
Display Level	OPERATOR

Attribute Properties
label
unit
standard unit
display unit

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

Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

format
max_value
min_value
max_alarm
min_alarm
max_warning
min_warning
delta_time
delta_val

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

MultipleMotors Class States	
Name	**Description**
ON	Idle state
MOVING	Energy is changing.
FAULT	
OFF	