TwoThetaP07 Tango Cpp Class

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TwoThetaP07 Class Identification :

Contact	: at desy.de - thorsten.kracht
Class Family	: Motion
Platform	: All Platforms
Bus	: Not Applicable
Manufacturer	: none
Manufacturer ref.	:

TwoThetaP07 Class Inheritance :

- Tango::DeviceImpl
  - TwoThetaP07

TwoThetaP07 Class Description :

the two-theta motion at P07 is made of a translation and rotation

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TwoThetaP07 Properties :

There is no class properties

Device Properties			
Name	**Description**	**Type**	

			Default Value
AxisTranslationDetector	the axis that translates the detector	String	none
AxisRotationDetector	the axis that rotates the detector	String	none
AxisRotationCollimator	the axis that rotates the collimator	String	none
AxisRotationAnalyzer	the axis that rotates the analyzer	String	none
AxisDistanceSampleDetector		String	none
AxisMonochromator	this axis points to a monochromator, the attribute position corresponds to the energy	String	none

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TwoThetaP07 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.
Init	DEV_VOID	DEV_VOID	OPERATOR	Re-initialise the device
ResetMotor	DEV_VOID	DEV_VOID	OPERATOR	None.
Calibrate	DEV_DOUBLE	DEV_VOID	OPERATOR	the input is a twoTheta angle, in additional input is the distance attribute, both values are used to calibrate the translation and rotation axes
StopMove	DEV_VOID	DEV_VOID	OPERATOR	stops both axes

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

Command Init :

Re-initialise the device

Init 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	..

Command ResetMotor :

ResetMotor 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	..

Command Calibrate :

the input is a twoTheta angle, in additional input is the distance attribute, both values are used to calibrate the translation and rotation axes

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

Command StopMove :

stops both axes

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	..

TwoThetaP07 Class Attributes							
Name	**Inherited**	**Abstract**	**Attr. type**	**R/W type**	**Data type**	**Level**	**Description**
Position	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	
PositionSim	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	
UnitLimitMin	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	
UnitLimitMax	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	
FlagUseAnalyzer	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	if flag == 0, the analyzer is not used, theta_ana = 0
FlagEnergyFromAttribute	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	if flag == 0, the energy is read from the monochromator\ndevice,

							otherwise the energy attribute is read
Energy	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	supplies the enery for the analyzer as long as the\nmonochromator cannot be read
D_analyzer	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	the lattice spacing of the analyzer
ResultSim	false	false	Spectrum	READ	Tango::DEV_STRING	OPERATOR	

There is no dynamic attribute defined.

Attribute Position :

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	
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 PositionSim :

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

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	

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

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

max_value
min_value
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 UnitLimitMin :

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
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 UnitLimitMax :

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

Attribute Properties
label
unit
standard unit
display unit
format
max_value
min_value
max_alarm

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

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

min_alarm
max_warning
min_warning
delta_time
delta_val

Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

Attribute FlagUseAnalyzer :

if flag == 0, the analyzer is not used, theta_ana = 0

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 FlagEnergyFromAttribute :

if flag == 0, the energy is read from the monochromator\ndevice, otherwise the energy attribute is read

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

Attribute Properties
label
unit
standard unit
display unit
format
max_value
min_value
max_alarm

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

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

min_alarm
max_warning
min_warning
delta_time
delta_val

Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

Attribute Energy :

supplies the enery for the analyzer as long as the\nmonochromator cannot be read

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
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 D_analyzer :

the lattice spacing of the analyzer

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

Attribute Properties
label
unit
standard unit
display unit
format
max_value
min_value
max_alarm

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

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

min_alarm
max_warning
min_warning
delta_time
delta_val

Push Archive event by user code	false
Push DataReady event by user code	Not set

Attribute ResultSim :

Attribute Definition	
Attribute Type	Spectrum (100)
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

There is no state defined