

AttoCubeCtrl Tango Cpp Class

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AttoCubeCtrl Class Identification :

Contact : at mai.desy.de - tnunez
Class Family : Motion

AttoCubeCtrl Class Inheritance :

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

Platform : Unix Like
Bus : Ethernet
Manufacturer : AttoCube
Manufacturer ref. : Positioner

AttoCubeCtrl Class Description :

Controller class for AttoCube Positioners

AttoCubeCtrl Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
HardwareId	HardwareId of the controller	int	none

AttoCubeCtrl 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

ReadPosition	DEV_LONG	DEV_DOUBLE	OPERATOR	to the caller. None.
WritePosition	DEVVAR_DOUBLEARRAY	DEV_VOID	OPERATOR	None.
ReadAxisStatus	DEV_LONG	DEV_STRING	OPERATOR	None.
MoveHome	DEV_LONG	DEV_VOID	OPERATOR	Move axis to reference position.
GetReference	DEV_LONG	DEV_DOUBLE	OPERATOR	Get distance of reference mark to the origin
ResetPosition	DEV_LONG	DEV_VOID	OPERATOR	Set origin to current position.
ReadAxisState	DEV_LONG	DEV_LONG	OPERATOR	Returns axis status in bits.
GetSpeed	DEV_LONG	DEV_DOUBLE	OPERATOR	None.
GetAmplitude	DEV_LONG	DEV_DOUBLE	OPERATOR	None.
GetStepWidth	DEV_LONG	DEV_DOUBLE	OPERATOR	None.
SetAmplitude	DEVVAR_DOUBLEARRAY	DEV_VOID	OPERATOR	None.
SetAmplitudeControl	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	type of amplitude control: 0: Speed, 1: Amplitude, 2: Step Size
StopMove	DEV_LONG	DEV_VOID	OPERATOR	None.
GetFrequency	DEV_LONG	DEV_LONG	OPERATOR	None.
SetFrequency	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	None.
GetDCLevel	DEV_LONG	DEV_LONG	OPERATOR	None.
SetDCLevel	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	None.
SetSingleCircleMode	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Switches single circle mode (only for rotary actors): 1=on, 0=off
SetStepCount	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Configures the number of successive steps caused by external trigger, or manual step request.
				Activates or Deactivates

SetOutput	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	the output relais of the addressed axis.
MoveRelative	DEVVAR_DOUBLEARRAY	DEV_VOID	OPERATOR	None.
MoveSingleStep	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Starts a one step positioning. Direction for positioning (0: forward, 1: backward).
MoveContinuous	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Starts continuously positioning. Direction for positioning (0: forward, 1: backward).
LoadFile	DEVVAR_LONGSTRINGARRAY	DEV_VOID	OPERATOR	Loads a parameter file for actor configuration.
GetRotCount	DEV_LONG	DEV_LONG	OPERATOR	Number of rotations for a rotary motor.
SetStopDetection	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Switches stop detection: 0 off, 1 on.

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	..
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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 ReadPosition :

ReadPosition Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_DOUBLE	Position
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command WritePosition :

WritePosition Definition		
Input Argument	Tango::DEVVAR_DOUBLEARRAY	AxisNumber and Position
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ReadAxisStatus :

ReadAxisStatus Definition		
Input Argument	Tango::DEV_LONG	AxisNumber
Output Argument	Tango::DEV_STRING	Status string
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command MoveHome :

Move axis to reference position.



MoveHome Definition		
Input Argument	Tango::DEV_LONG	Axis Number
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetReference :

Get distance of reference mark to the origin

GetReference Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_DOUBLE	Position
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ResetPosition :

Set origin to current position.

ResetPosition Definition		
Input Argument	Tango::DEV_LONG	Axis Number
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..

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

Command ReadAxisState :

Returns axis status in bits.

ReadAxisState Definition		
Input Argument	Tango::DEV_LONG	AxisNumber
Output Argument	Tango::DEV_LONG	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetSpeed :

GetSpeed Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_DOUBLE	Speed
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetAmplitude :

GetAmplitude Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_DOUBLE	Amplitude
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetStepWidth :

GetStepWidth Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_DOUBLE	Step width
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetAmplitude :

SetAmplitude Definition		
Input Argument	Tango::DEVVAR_DOUBLEARRAY	axis number and amplitude
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetAmplitudeControl :

type of amplitude control: 0: Speed, 1: Amplitude, 2: Step Size

SetAmplitudeControl Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and control id
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command StopMove :

StopMove Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_VOID	

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

Command GetFrequency :

GetFrequency Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_LONG	Frequency
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetFrequency :

SetFrequency Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and frequency
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetDCLevel :

GetDCLevel Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_LONG	DCLevel
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetDCLevel :

SetDCLevel Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and DCLevel
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetSingleCircleMode :

Switches single circle mode (only for rotary actors): 1=on, 0=off

SetSingleCircleMode Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and rotary mode
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetStepCount :

Configures the number of successive steps caused by external trigger, or manual step request.

SetStepCount Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and rotary mode
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetOutput :

Activates or Deactivates the output relays of the addressed axis.

SetOutput Definition

Input Argument	Tango::DEVVAR_LONGARRAY	axis number and output state
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command MoveRelative :

MoveRelative Definition		
Input Argument	Tango::DEVVAR_DOUBLEARRAY	AxisNumber and relative position
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command MoveSingleStep :

Starts a one step positioning. Direction for positioning (0: forward, 1: backward).

MoveSingleStep Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and direction
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..

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

Command MoveContinuous :

Starts continuously positioning. Direction for positioning (0: forward, 1: backward).

MoveContinuous Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and direction
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command LoadFile :

Loads a parameter file for actor configuration.

LoadFile Definition		
Input Argument	Tango::DEVVAR_LONGSTRINGARRAY	axis number, configuration file
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetRotCount :

Number of rotations for a rotary motor.

GetRotCount Definition		
Input Argument	Tango::DEV_LONG	Axis number
Output Argument	Tango::DEV_LONG	Number of rotations.
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetStopDetection :

Switches stop detection: 0 off, 1 on.

SetStopDetection Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	axis number and stop detection mode
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

There is no attribute defined.

There is no dynamic attribute defined.

AttoCubeCtrl Class States	
Name	Description
ON	
FAULT	