

AndorCamera Tango Cpp Class

Contents :

- [Description](#)
- [Properties](#)
- [Commands](#)
 - [State](#)
 - [Status](#)
 - [SetImageBinRol](#)
 - [SetShutter](#)
 - [GetHShiftSpeedByIndex](#)
 - [GetVShiftSpeedByIndex](#)
 - [StartAcquisition](#)
- [Attributes](#)
 - [Cooling](#)
 - [CoolingTemperature](#)
 - [TriggerMode](#)
 - [Spooling](#)
 - [FileDir](#)
 - [SpoolingFileFormat](#)
 - [DataType](#)
 - [AcquisitionMode](#)
 - [NumberAccumulations](#)
 - [ReadoutMode](#)
 - [HBin](#)
 - [VBin](#)
 - [HStart](#)
 - [HEnd](#)
 - [VStart](#)
 - [VEnd](#)
 - [InternalShutter](#)
 - [ExternalShutter](#)
 - [TTLSignalShutters](#)
 - [ExposureTime](#)
 - [NumberKinetics](#)
 - [FilePrefix](#)
 - [FileNumber](#)
 - [HShiftSpeedID](#)
 - [HShiftSpeed](#)
 - [NbHShiftSpeeds](#)
 - [VShiftSpeedID](#)
 - [VShiftSpeed](#)
 - [NbVShiftSpeeds](#)
- [States](#)

AndorCamera Class Identification :

Contact : at mail.desy.de - tnunez
 Class Family : Acquisition
 Platform : Unix Like

AndorCamera Class Inheritance :

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

BUS : USB
Manufacturer : Andor
Manufacturer ref. : CCD

AndorCamera Class Description :

Class for connecting to and controlling the camera.

AndorCamera Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
CameraId	Id of the camera	int	none

AndorCamera 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.
SetImageBinRol	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Set image bin und Rol parameters.
SetShutter	DEVVAR_LONGARRAY	DEV_VOID	OPERATOR	Set internal and external shutter modes, and TTL signal.
GetHShiftSpeedByIndex	DEV_LONG	DEV_FLOAT	OPERATOR	Reads the horizontal shift speed for the given index.
GetVShiftSpeedByIndex	DEV_LONG	DEV_FLOAT	OPERATOR	Reads the vertical shift speed for the given index.
StartAcquisition	DEV_VOID	DEV_VOID	OPERATOR	Start an acquisition.

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	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	Device status
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetImageBinRol :

Set image bin und Rol parameters.

SetImageBinRol Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	HBin,VBin,HStart,HEnd,VStart,VEnd
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command SetShutter :

Set internal and external shutter modes, and TTL signal.

SetShutter Definition		
Input Argument	Tango::DEVVAR_LONGARRAY	Int mode, ext mode, ttl signal
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetHShiftSpeedByIndex :

Reads the horizontal shift speed for the given index.

GetHShiftSpeedByIndex Definition		
Input Argument	Tango::DEV_LONG	Shift Speed Index
Output Argument	Tango::DEV_FLOAT	Shift Speed
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command GetVShiftSpeedByIndex :

Reads the vertical shift speed for the given index.

GetVShiftSpeedByIndex Definition		
Input Argument	Tango::DEV_LONG	Shift Speed Index

Output Argument	Tango::DEV_FLOAT	Shift Speed
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command StartAcquisition :

Start an acquisition.

StartAcquisition 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	..

AndorCamera Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
Cooling	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Set on/off cooling.
CoolingTemperature	false	false	Scalar	READ_WRITE	Tango::DEV_FLOAT	OPERATOR	Writes desired temperature of the detector. Reads current temperature.
TriggerMode	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Set trigger mode. Read last set value.
Spooling	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Activate/desactivate spooling.
FileDir	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	Directory for saving files
SpoolingFileFormat	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	File Format for spooling files. Written to hardware only by writting to the

DataType	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Spooling attribute. Writes the count convert mode. Reads the last set value.
AcquisitionMode	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Set the acquisition mode. Reads the last set value. 1->singlescan,2->accumulate,3->Kinetics,4->FastKinetics,5->RunUntilAbort.
NumberAccumulations	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Set the number of scans accumulated in memory. It only takes effect in Accumulate or Kinetic Acquisition modes. Reads last set value.
ReadoutMode	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Set the readout mode: 0-> full vertical binning, 1 -> multi track, 2 -> random track, 3 -> single track, 4 image
HBin	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last set horizontal binning
VBin	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last set vertical binning.
HStart	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last set horizontal Rol start.
HEnd	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last set horizontal Rol end.
VStart	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last set vertical Rol start.
VEnd	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last set vertical Rol end.
InternalShutter	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Last internal shutter mode set.
ExternalShutter	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Reads last set value.
TTLSignalShutters	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Reads the type of TTL signal send to the external shutter.
ExposureTime	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Set exposure time and read the current valid value.
NumberKinetics	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	Set the number of scans taken in a single acquisition sequence. It only takes effect in Kinetic Acquisition mode. Reads last set value.
FilePrefix	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	Prefix file name. Complete name: FilePrefix_FileNumber
FileNumber	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	File Number. Complete file name:

							FilePrefix_FileNumber
HShiftSpeedID	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Set Horizontal Speed Shift by the index. Reads last set value.
HShiftSpeed	false	false	Scalar	READ	Tango::DEV_FLOAT	OPERATOR	Last set horizontal shift speed.
NbHShiftSpeeds	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Number of horizontal shift speeds.
VShiftSpeedID	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Set Vertical Shift Speed by the index. Reads last set value.
VShiftSpeed	false	false	Scalar	READ	Tango::DEV_FLOAT	OPERATOR	Last set vertical shift speed.
NbVShiftSpeeds	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	Number of vertical shift speeds.

There is no dynamic attribute defined.

Attribute Cooling :

Set on/off cooling.

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	0 -> off, 1 -> on, 2-> stabilized
unit	
standard unit	
display unit	
format	
max_value	2
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 CoolingTemperature :

Writes desired temperature of the detector.
Reads current temperature.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_FLOAT
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	Degrees
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 TriggerMode :

Set trigger mode. Read last set value.

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

Attribute Properties	
label	
unit	0->internal, 1->external
standard unit	
display unit	
format	
max_value	1

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

Memorized	Not set
Read allowed for	All states
Write allowed for	All states

min_value	0
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	false

Attribute Spooling :

Activate/desactivate spooling.

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	0->off, 1 -> on
standard unit	
display unit	
format	
max_value	1
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 FileDir :

Directory for saving files

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	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	false

Attribute SpoolingFileFormat :

File Format for spooling files. Written to hardware only by writing to the Spooling attribute.

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	8
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 DataType :

Writes the count convert mode. Reads the last set value.

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	0->counts, 1->electrons,2->photons
standard unit	
display unit	
format	
max_value	2
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 AcquisitionMode :

Set the acquisition mode. Reads the last set value.

1->singlescan,2->accumulate,3->Kinetics,4->FastKinetics,5->RunUntilAbort.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_LONG
Display	

Attribute Properties	
label	
unit	1->ss,2->acc,3->kin,4->fKin,5->RUAb
standard unit	
display unit	

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

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

format	
max_value	5
min_value	1
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

Attribute NumberAccumulations :

Set the number of scans accumulated in memory.
 It only takes effect in Accumulate or Kinetic Acquisition modes.
 Reads last set value.

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	
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 ReadoutMode :

Set the readout mode:
 0-> full vertical binning, 1 -> multi track, 2 -> random track, 3 -> single track, 4 image

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	0->full vert. bin,1->MTr.,2->RdTr.,3->STr.,4->lm
standard unit	
display unit	
format	
max_value	4
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 HBin :

Last set horizontal binning

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
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	false

Attribute VBin :

Last set vertical binning.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
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	false

Attribute HStart :

Last set horizontal Rol start.

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

Attribute Properties	
label	
unit	
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
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false

Read allowed for	All states
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min_warning	
delta_time	
delta_val	

Push DataReady event by user code	false
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Attribute HEnd :

Last set horizontal Rol end.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
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	false

Attribute VStart :

Last set vertical Rol start.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
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
Push Change event by user code	false

Memorized	Not set
Read 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	false

Attribute VEnd :

Last set vertical Rol end.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
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	false

Attribute InternalShutter :

Last internal shutter mode set.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false

Attribute Properties	
label	
unit	0->Auto,1->Open,2->Close
standard unit	
display unit	

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

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

Attribute ExternalShutter :

Reads last set value.

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

Attribute Properties	
label	
unit	0->Auto,1->Open,2->Close
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 TTLSignalShutters :

Reads the type of TTL signal send to the external shutter.

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

Attribute Properties	
label	
unit	0->Low, 1->High
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 ExposureTime :

Set exposure time and read the current valid value.

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

Attribute Properties	
label	
unit	s
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
Archive Absolute Change	Not set

Write allowed for	All states
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min_warning	
delta_time	
delta_val	

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

Attribute NumberKinetics :

Set the number of scans taken in a single acquisition sequence.
It only takes effect in Kinetic Acquisition mode.
Reads last set value.

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	
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 FilePrefix :

Prefix file name. Complete name: FilePrefix_FileNumber

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE

Attribute Properties	
label	
unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

Data Type	Tango::DEV_STRING
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

standard unit	
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	false

Attribute FileNumber :

File Number. Complete file name: FilePrefix_FileNumber

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	false

Attribute HShiftSpeedID :

Set Horizontal Speed Shift by the index. Reads last set value.

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	false

Attribute HShiftSpeed :

Last set horizontal shift speed.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_FLOAT
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	false

Attribute NbHShiftSpeeds :

Number of horizontal shift speeds.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
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	false

Attribute VShiftSpeedID :

Set Verticalal Shift Speed by the index. Reads last set value.

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	false

Attribute VShiftSpeed :

Last set vertical shift speed.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_FLOAT
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	false

Attribute NbVShiftSpeeds :

Number of vertical shift speeds.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	

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

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

min_value	
max_alarm	
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	false

AndorCamera Class States	
Name	Description
ON	
MOVING	
FAULT	
ALARM	